FILE DESCRIPTION

PHILADELPHIA FILE

SUBJECT Harry Gold

FILE NO. 65-4307

VOLUME NO. Bulky Exhibit

SERIALS 1-B-13

PART A

NOTICE

THE BEST COPIES OBTAINABLE ARE INCLUDED IN THE REPRODUCTION OF THE FILE. PAGES INCLUDED THAT ARE BLURRED, LIGHT OR OTHERWISE DIFFICULT TO READ ARE THE RESULT OF THE CONDITION AND OR COLOR OF THE ORIGINALS PROVIDED. THESE ARE THE BEST COPIES AVAILABLE.

Inventory Worksheet
FD-503 (2-18-77)

VOLUME 1-B-13 PHILADELPHIA FILES

INVENTORIED BY [illegible]

REVIEWED BY [illegible]

File No: 65-4307 Re: HARRY GOLD

Date: 4-78 (month/year)

Serial	Date	Description (Type of communication, to, from)	No. of Pages Actual	No. of Pages Released	Exemptions used or, to whom referred (Identify statute if (b)(3) cited)
—	6-6-50	Bulky Exhibit - FD-141	1	1	
Enclosure #12A	—	Cover Sheet	1	1	
	7-10-50	SA to SAC Phil Memo	1	1	
	6-6-50	Folder containing handwritten documents of Harry Gold	142	142	
12B	—	Cover Sheet	1	1	
	7-10-50	SA to SAC Phil Memo	1	1	
	6-6-50	Folder containing handwritten notes of Harry Gold	98	98	some pgs. both sides
12C	—	Cover Sheet	1	1	
	6-6-50	Folder with notes, etc. of Harry Gold	161	161	some pgs both sides
12D	—	Cover Sheet	1	1	
	7-10-50	SA to SAC Phil Memo	5	5	
	6-6-50	Folder w/ documents	40	40	some pgs. both sides

FBI/DOJ

Inventory Worksheet
FD-503 (2-18-77)

VOLUME 1-B-13 PHILADELPHIA FILES

INVENTORIED BY [illegible]

REVIEWED BY [illegible]

File No: 65-4307 Re: Harry Gold

Date: 4-78 (month/year)

Serial	Date	Description (Type of communication, to, from)	No. of Pages Actual	No. of Pages Released	Exemptions used or, to whom referred (Identify statute if (b)(3) cited)
12E	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes of Harry Gold	38	38	
12F	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes of Harry Gold	1	1	
12G	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes of Harry Gold	39	39	
12H	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes + documents of Harry Gold	7	7	
12I	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes + documents of Harry Gold	68	68	some pgs. both sides
12J	—	Cover Sheet	1	1	
	6-6-50	Folder containing notes of Harry Gold	76	76	

FBI/DOJ

Entire exhibit (except "12A" "indexed") returned to FBI 11-6-67 by J. Jones. (Returned 11-21-67)

FD-141
(7-1-48)

BULKY EXHIBIT

Date received 6-6-50

HARRY GOLD

ESP R

(Title of case)

Retyped

Submitted by Special Agent Fred C. Birkby

Source from which obtained Search of Subject's residence

Address 6823 Kindred St., Phila.

Purpose for which acquired Aid in investigation--evidence

Location of bulky exhibit Exhibit Room

65-4307-1-B-13

Estimated date of disposition 12-1-50

Ultimate disposition to be made of exhibit to be determined

SEARCHED ____ INDEXED ____
SERIALIZED ____ FILED ____
NOV 21 1951
FBI - PHILADELPHIA

List of contents:

1. 21 manila folders numbered 12A thru 12U inclusive containing misc papers found on fourth shelf of wooden cabined in basement.
2. 140 misc sheets of paper handwritten from fourth shelf of wooden cabinet in basement.
3. One envelope addressed to subject postmarked June 2, 48 at Phila from Morrell E. Dougherty 5517 Litchfield St. Phila 43, Pa., containing one sheet of paper signed Doc.
4. Budge Composition Book containing chemical formulas.
5. Photostat of US Patent Office document #2,050,901.
6. Photostat of US Patent Office document #2,359,212.
7. Federal Standard Stock Catalogue L-P-406a Jan 24, 1944.
8. One 21 page "Memorandum for the preparation of Thioglycolic Acid Patent Papers" enclosed in brown envelope.
9. One brown envelope bearing return address "The Girdler Corp., Louisville, Ky. containing 13 misc papers.
10. Manila folder containing six misc sheets of paper.
11. 47 sheets of loose leaf paper containing seven punch holes and bearing penciled notations. Found on first shelf of wooden cabinet.
12. 20 3X5 index cards. Found on second shelf of Wood cabinet.
13. Slip of paper containing name of James A. Devlin. Found on 2nd shelf of wooden cabinet in basement at 6823 Kindred St.
14. Investigative notes of SA Burgess re search of Gold's home on above date.

PART A = 1. 12A thru 12J

SAC, Philadelphia 7/10/50

SA T. SCOTT MILLER, JR.

HARRY GOLD, was.
ESPIONAGE - R

EXHIBIT 65-4307-1B-13 (1) (Exhibit 12A)

On 6/22/50, GOLD examined this material and stated that all of it was in his handwriting and consisted of material he was gathering when he was considering seeking new employment in about March 1947, when his mother was pressing him to leave BROTHMAN. Much of this material was in connection with obtaining a Civil Service grade, which he did. GOLD said that this material also contained rough drafts of letters he wrote after he left BROTHMAN, seeking employment by answering want ads in newspapers.

Relative to the application for federal employment forms, of which there were several which were partially filled out, GOLD stated that he filled out a number of them but was not pleased with the manner in which his experience had been explained, and this accounts for the forms he has which apparently had been filled out but never handed in.

TSM:HKF
65-4307

682 Kindred Street,
Philadelphia 24, Pa.
August 15, 1948.

Box H-148, Inquirer.

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer of Sunday, August 15, 1948; the position is that of a chemist for research and development in the pharmaceutical industry.

I am thirty seven years of age, am single, and have had a total of nineteen years of experience and education in the fields of chemistry and chemical engineering. The job specifications require a very definite combination of training, practical background and ability which I am certain that I possess.

For the past two years I have been employed as the chemist in charge of the laboratory for the firm of A. Brothman and associates, a chemical process development and engineering organization in New York City; During a seventeen-year

6823 Kindred Ave
Philadelphia 24,
August 8, 19

M-82, P.O. Box 3495,
Philadelphia 24, Pa.

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer of Sunday, August 8, 1948; the position is that of a product development man in the pharmaceutical industry.

I am thirty seven years of age, a single, and have had a total of nine years of experience and education in the fields of chemistry and chemical engineering. The job specifications require a combination of training, practical background and ability which I am certain that I possess.

For the past two years I have been employed as the chemist in charge of laboratory for the firm of A. Brottman and associates, a chemical process development and engineering organization in New York City. During a seventeen-year

is given in an article titled "new Proc
for acrylic Resins" which appeared in
chemical Engineering, april 1947, p. 10
to 106; my name is noted in the cre
at the end of the paper.

In accordance with your instructions I enclose the completed application form for work as an organic chemist. There is also included a more complete account of my professional experience and formal collegiate training than was possible on the application form. A photostat of this is attached.

I thank you for any consideration you may show me.

Very truly yours,
Harry Gold.

6823

6823 Kindred str
Philadelphia 24
august 7, 19

mr. B. Bright,
atlantic Refining Co.,
personnel Department,
3144 Paddyunk ave.,
Philadelphia, Pa.

Dear mr. Bright:
In the interview on monday and

for the Pennsylvania Sugar Company a its subsidiaries in jobs beginning with routine laboratory assistant and endin as a research chemist. Below is given o outline of my professional experience and formal collegiate studies.

Experience

I. Firm Penna. Sugar Co. and Subsidiari

period January 1929 to February 194

I worked for the above firm for a seventeen year period interrupted only by two leaves-of-absence to go to sch

1. Period January 1929 to September 1

and

March 1932 to

continuation sheet

Experience

I. Firm Penna Sugar Co. (and Subsidiaries)

period June 1924 to Feb. 1946

I worked for the Penna Sugar Co & its subsidiaries for a 17 year period interrupted by two leaves of absence to go to other formal collegiate training in chemistry.

Below is given a detailed account of my work as is possible on the application form.

1. period June 1929 to April 1932
and
March 1932 to

job Routine analytical work in Sugar Refinery

employer Dr. Anton T. Reich, Director of Research

Description of work — there was involved the control of the steps of the refining process as well as the

addition to involving the use of the normal analytical skills, there were employed such specialized instrum[ents]

as the

recover the CO_2 from flue gas (for subsequent manufacture into its solid form "Dry Ice"); this carbon dioxide would thus supplement the off-seasonal supply of CO_2 as obtained from the molasses-alcohol fermentation operated by

Harry Gold 6823 Kindred St., Phila. 24, P

Born Dec. 12, 1910 Chemist, O6.

Item 13. Education
(continued from Form 57)

As can be seen from the answers to items 16 and 18, my schooling was interrupted twice by the necessity of going to work. As result, both for review purposes and due to roster difficulties, I repeated courses in:

Quantitative analysis
organic chemistry
physical chemistry
analytic Geometry
Differential and Integral Calculus

though I had previously had satisfactory grades. I have not credited myself with additional semester hours for these courses.

In addition I also took courses in the following subjects of a Graduate Level:

advanced organic chemistry
Qualitative organic analysis
Inorganic Preparations
Theory of Equations

note 1. I graduated "Summa Cum Laude" from Xavier University.

2. The semester hours credited for my major subjects are accurate, but the totals for each school may be slightly off due to the fact that I have not all the records available.

Description of Work —

The job entailed doing assay work for factors of the vitamin B complex; the material which was assayed was a high-vitamin feed yeast which was recovered from the fermentation process in the distillery. This required the use of a novel bacteriological technique which had then only recently been developed to replace the more costly and time-consuming animal assay methods (the new technique is known as the Snell-Strong method). In the work, another man, Morrell C. Dougherty, and I operated as a team; we even set up the laboratory which was needed. The following points are pertinent ~~may also be of interest~~

a. The factors of the B complex for which values were obtained were:

B_2 (Riboflavin)
Pantothenic acid
Niacin

Continuation sheet 5

B_1 (Thiamin) was assayed for by the yeast-growth method Schultz, Atkin and Frey.

b. Considerable work was done on the development of special cultu suitable for increasing the Ribo flavin, Niacin and Pantothenic acid content of the recovered by product yeast. This research was successful and resulted in feed values 200 to 300% in excess of what they had previously been

c. Some original investigations we completed on assay methods for Biotin and Folic acid as present feed yeast; these factors of the B complex had then only recent been discovered.

4. Period april 1943 to February 1946

Job chemist

Superiors. Mr. Nemesio Alvaré, General manager of Distillery
Mr. John P. Manley, General

Description of Work. —

Here again, Mr. Dougherty and I worked together on an equal basis; tw divisions of the company were served, - distillery and the sugar refinery. our duties included:

1. For the Distillery

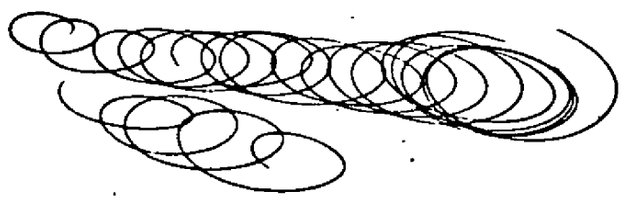
a - complete responsibility for all fermentation work carried out - the alcohol plant — from the la oratory cultures, through the yeas culture machines, and to the fi fermentation in the plant on o 270,000 gallon per day scale.

4. Period

4. Period

the distillery and then instit
a rigid program of sanitation
we were able to increase th
yield of alcohol from 65%.

(3) Conducting experimental work aimed at bettering the yield of alcohol. Our program was two fold: one, we designed and had installed an improved type of yeast culture machine



continuation sheet 9

refinery represented a considera
saving over the use of City Wat
but it was absolutely essent
that we knew that we were
not exceeding the allowable
limits for contaminating or

continuation sheet 11

continuation sheet 11

con

continuation sheet 11

swelling of cans and in the product of "off" odors. We undertook a sear for the sources of these "flat sour and "sulfide stinker" bacteria an then laid out a program, whic when set up in the plant

II Firm A Brothman and associates

Period May 1946 to June 1948

Job Chief Chemist

Description of Work —

The above named company is a chemical process development and engineering organization. During my stay in charge of the laboratory, the following projects were worked on and successfully completed:

1. A novel process for the production of methyl methacrylate monomer (the unpolymerized form of "Lucite") from acetone and acetylene as starting materials, as compared with the normal route via acetone and hydrocyanic acid. The acetone acetylene synthesis avoids the hazards of working with HCN and the equally dangerous acetone cyanohydrin. This process was develo

3. The working out of a method for the manufacture of a high-test calcium hypochlorite bleach (75%+, available chlorine) and designed for the use of a chemical firm in India. This process avoids the use of sodium hypochloride and involves the formation of an alkyl hypochlorite in the presence of calcium carbonate. The company in question operates extensive caustic soda - chlorine cell installations; the caustic soda is extremely valuable and used in India's vast textile industry whereas the chlorine is to them not only a waste material, but its disposal is difficult. A high-test bleach is also a desired commodity, but a process was needed

continued none of the previous Mat

Continuation sheet 12

4. The working out of method for the production of a high-test calcium hypochlorite bleach (75% plus ava

~~Sept~~

my mother died in september of 1947 and since

The heavy work schedule at A. Brothman and associates entailed my staying in new york not only during the week but also on Saturdays and Sundays. When my mother died in September 1947 my father was left alone here in philadelphia with only my brother to care for him. We have always been very closely-knit family and it was to carry my share that I left just two weeks past the past two mos.

In addition there has been a bought about a serious disagreement regarding basic policy between mr. Brothman and myself which made my departure ~~desirable~~ necessary.

227 Krams avenue
Philadelphia 27, Pa.

Reason for leaving —

The heavy work schedule at A. Brotman and associates entailed my staying in New York not only during the week but also on Saturdays and Sundays. When my mother died in September 1947, my father was left alone in Philadelphia with only my brother to care for him; it was to carry my share that I left New York just the past June.

In addition there arose a serious disagreement concerning basic policy between Mr. Brotman and myself, and which made my departure desirable.

Education

As can be seen from the data given under Experience, my schooling was twice broken up by the necessity of

difficulties, I repeated courses at the three schools which I attended:

University of Pennsylvania, 1930 - 1932

Drexel Institute Evening School

~~[illegible]~~

The schools attended were:

1. University of Penna ~~1930 - 193~~
   October 1930 to March 1931
   Course in chemistry
2. Drexel Inst
   February 1934 to June 1936
   Course in [illegible]
   I received in diploma in [illegible]
3.

The schools

schools attended were

The work here was strictly routine and required only an ability to work rapidly and accurately. It should be noted however, that in addition to involving the use of the normal analytical methods, the work involved such specialized instruments as the polarimeter, refractometer, colorimeter (Du Bois) Viscosimeter & so also, the sugar analysis were subject to a continual check by two outside laboratories, a procedure which required careful & precise work.

2. period July 1936 to August 1938

for Pilot Plant Development work on a process for the recovery of CO_2 from flue gases.

supervisor Dr. M. T. Rice

Description of work The purpose of the pilot plant was to recover for use the CO_2 from flue gases (and also for making into dry ice. This CO_2 would then supplement the off-season supply of CO_2 from the fermentation by the distilleries and by carbonating out the

b. ~~carrying out~~ Conducting of Trial runs & material balances

c. writing of Reports covering all phases of the project.

3. Period July 1940 to March 1943.

for microbiological Vitamin assays for factors of the B complex.

Director Dr. D.T. Rice

~~Top Man~~

Under —

Series of work — The job entailed the carrying out of the ~~microbiological vitamin~~ assays during work on the liquid vitamin feed-yeast which was recovered from the fermentation process with the antibiotics. This involved the use of a novel bacteriological technique which had only been developed ~~the~~ time-consuming and costly methods. This included the setting up of the lab for carrying out the work

The ~~factors the~~ Vitamin B complex factors ~~factors~~ which were evaluated were

B_2 (Riboflavin)

~~Pantothenic~~ Pantothenic acid

B_1 (Thiamin) was assayed for the the yeast growth method of Lilly, Atk & Frey.

b. Further, considerable work was done on the development of special cultures suitable for increasing the Riboflavin & ~~Pantothen~~ Niacin & Pantothenic acid values of the recovered b-product yeast. This method was successful in obtaining ~~yields~~ feed values 100 and 200%, in excess of what they had previously been.

c. also ~~some~~ ~~work~~ ~~re~~ original work was done on assay methods for biotin, Folic acid contents of

4. Period April 1945 to ~~me~~ Feb. 1946.

for ~~the~~ chemist & supervisor of the control laboratory
Mr. Norman Alvarez (Distillery)
Mr. John P. Manley (Refinery)
Assistant manager

Division of work — the work was divided into two categories, ~~for~~ ~~the~~ for the

I The Distillery
II The Refinery

a. For the Distillery

(1) Complete responsibility for all fermentation work carried out in the distillery from the laboratory cultures through the yeast making cultures making to the plant fermentation on a 75,000 gallon ~~scale~~ ~70,000 /day scale.

2. Control & analysis of all raw material (molasses & grain) & all finished products & by-products (& dry lees & feed yeast).

3. Carrying out of overall work & assistant settling the yield of alcohol

b- For the Refinery

(1) The setting up of a laboratory & the training of personnel for the carrying out of B coli tests on raw river water. The use of this water after purification in the refinery remained a controversial issue, the use of city water but it was absolutely essential that we knew

(2) The work on canners' spoilage material was undertaken to eliminate there from microorganisms from refined sugar. The canning process their presence above certain limits ~~in~~

of off odor. We undertook a program for determining the source of this "flat sour" bacteria and ~~devised~~ carried out a program which when carried out in the plant resulted in the complete elimination of ~~this~~ this trouble.

II. Firm A. Brotman & associates

period May 1946 to June 1948

job chief chemist

Description of work – The above firm was a ~~stock~~ chemical process development organization. During my stay as chief chemist the following projects were worked on and successfully ~~developed~~ completed:

a. ~~As part of a fulfillment~~ A new process for the production of methyl nitrite from acetone & acetylene as compared with the normal route via acetone & ~~:~~ The acetone-acetylene synthesis is considerably ~~to~~ more economical and in addition avoids the hazards of working with hydrocyanic acid. (over)

reaction to form compounds such as maleic anhydride, lactic acid (100%), propanol alcohol & butadiene.

b. The development of a process for the production of a high test calcium hypochlorite (70-70% available Cl) for the use of a chemical firm in India. This process avoids the use of ~~the caustic~~ sodium hydroxide & ~~this~~ involves the use of calcium carbonate and an alkali hypochlorite formation

This firm ~~manufactures~~ uses caustic soda - chlorine, etc ~~& the chlorine~~ the caustic soda is extremely valuable would in India's boot textile industry ~~but~~ whereas the chlorine is not such a waste material but difficult to dispose of ~~of~~. ~~They wanted a~~ ~~for~~ a high test bleach is also a desirable commodity but ~~they~~ the matter is ~~that~~ devised a process which used more of the valuable caustic soda.

c. The development of a process for the production of acetone from acetylene & steam. While such a process would ~~not be~~ commercially economical in ~~the~~ country where acetone - although also & butanol are produced in a little farmer still it was peculiarly suited to a

68

6823 Kindred Str
Philadelphia 24,
August 8, 1947

M.J.Z., P.O. Box 3495
Philadelphia 24, Pa.

Dear Sir:

This letter is in answer to your adv
tisement for a product development man
which appeared in the
Inquirer of and ~~which~~; the posit
is that of a product development ma
in the pharmaceutical industry.

I am thirty seven years of age, a
male and have had a total of nin
teen years of experience and educatio
in the fields of chemistry and chemic
engineering. I know the job specifica
tions require a

6823 Kindred Street
Philadelphia 24, Pa.
August 9, 1947

M.J.Z., P.O. Box 3495
Phil Philadelphia
24, Pa.

This letter is in

as part fulfillment of a contract with "The Commission on Aeronautical Affairs of the Republic of China" and is described in some detail

by the necessity of earning a living.

I am certain that I can handle your job competently. I would require a minimum salary of dollars a week. May I have an interview?

Very truly yours,

Harry Gold.

Mr. B. Bright

Dear Mr. Bright:

In ~~the~~ my interview on monday August 2, 1948 I stated that I had ~~done~~ done no work in the ~~catalytic~~ field of catalytic reactions. This is in error as part of our work for the Chinese mission included a ~~pro~~ the demonstration of a process for the manufacture of ~~acetylene~~ acetone from acetylene. The background on this is:

1. We ~~tried~~ attempted to duplicate the ~~Canadian~~ ~~work~~ Russian work with mixed iron and vanadium oxides; the yields were very poor

(5) carrying on of experimental work aimed at bettering the yield of alcohol, particularly from grain. Our program was twofold: one, we designed and had erected an

(alcohol, dry ice and feed yeast)

(6) carrying on of experimental work aimed at bettering the yield of

Maddux.

Firm A. Brothman and associates

Period May 1946 to June 1948

Job Chief Chemist

Description of Work

Resumé

The above named company is a chemical process development and engineering organization. During my stay in charge of the laboratory, the following projects were worked on and successfully completed:

a novel process for the production of methyl Methacrylate monomer (the raw material for "Lucite") from acetone and acetylene as the starting compounds as compared with the normal route via acetone and acetylene.

6823 Kindred Street

6823 Kindred Street,

6823 Kindred 6823 Kind

Box B-358 Inquirer

Dear Sir: Box B-358 Inquirer

Resume of Experience and Education

I am Chity

Friday August 15, 1948.

I am [illegible], am [illegible] and my familiarity with a wide variety of analytical instruments;

5 years of routine analytical work in a sugar refinery

Yours

Chity

6-6-50
300

For the past two years I have been employed as chief chemist for the firm of A. Nordman & associates of New York City, a chemical process development organization. For all 17 years a 17 year period previous I worked for the Penna Sugar Co & its subsidiaries in jobs beginning with routine lab work & ending as Research chemist.

Below is a brief an outline of my ~~previous~~ prior collegiate studies professional experience & ~~education~~ ~~track~~ ground.

[illegible]

[illegible]

6.6.50

I. Firm

Plana Sugar Co.

17 years

Dunwich

17 years

2 years

Harry Gold

I. Firm

Firm

II. Period

The above named firm is a chemical process development organization. During my stay as chief chemist

Thurrow Products and Chemicals Corp.

Dear Dr. Mills

I enclose the completed application form which you sent me

my delay in answering is due

we knew that we were not exceeding the allowable limits

Education

as can be seen from the answers on the application form, my schooling was broken up twice by the necessity of earning a living. As a result, both for review purposes and due to roster diffi-

Period May 1946 to Jun 1948

for Chief Chemist

Description of Work —

The above named company is a chemical process development and engineering organization. During my stay in charge of the laboratory, the following projects were worked in and successfully completed:

1. a novel process for the production of methyl methacrylate monomer (the unpolymerized form of Lucite) from acetone and acetylene as the starting materials, as compared with the normal route via acetone and hydrocyanic acid. The acetone-acetylene synthesis avoids the great hazards of working with HCN and the equally dangerous acetonecyanohydrin. This process

Experience

(resumé)

~~[illegible]~~

Period Jan. 1929 To and Feb. 1946.

Firm Penna Sugar Co. and subsidiaries

Description of work —

I Routine analytical

period

This work ~~included~~ involved ~~chemistry~~ ~~of all raw materials (sugar, molasses, bone black)~~ the ~~control of~~ ~~analysis of~~ ~~all~~ control of all of the items of the refining process.

~~[illegible]~~ ~~[illegible]~~ 30
50
1800

①

Experience

Experience

Firm: A. Brotman and Associates

Job: Chief Clerk

period previous, I worked for the "Principle

following data is pertinent

B. (Thiamin) was assayed for by the yeast-growth method of Schultz, Atkin and Frey.

b. Considerable work was done on the development of special cultures suitable for increasing the Riboflavin, Niacin and Pantothenic acid content of the recovered by-product yeast. This research was successful and resulted in feed values 200 to 300% in excess of what they had previously been.

c. Some original investigations were completed on assay methods for Biotin and Folic acid as present in feed yeast; these factors of the B complex had then only recently been discovered.

d. The above work was carried out by

Continuation Sheet 5

B1 (Thiamin) was assayed for by the yeast-growth method Schultz, Atkin and Frey.

C Considerable work was done on the development of special cultures suitable for increasing the Riboflavin, Niacin and Pantothenic acid content of the reported by-product yeast. This research was successful and resulted [illegible] food value 200 to 300% [illegible] exceeded [illegible] what they had pre-[illegible]

[illegible]

[illegible] chemist and [illegible]

as is noted under

Two divisions of the Penna Sugar Company the Distillery and the Sugar Refinery were served. Here again Mr. Dougherty and fooling

~~Below is a summary of my technical back-~~
~~ground & [illegible] the [illegible] had no deep dep in the mind~~
~~of practicing [illegible] pilot. But it is~~
~~[illegible] my belief~~
~~[illegible] my belief that I can~~
my belief that I can readily adapt myself &
— particularly because of my solid ~~[illegible]~~
~~[illegible] in analytical [illegible]~~, background in
analytical work & ~~[illegible]~~ ~~the pilot [illegible] that~~
~~dis. work [illegible]~~ & in pilot plant dis. work.

— a variety of jobs

6823 Kindred Street
August 8, 1948

B.O. Box 3414
Philadelphia 22, Pa.

Dear Sir:

This letter is in answer to your
This letter is in answer to your
This letter is in answer to your advertisement for a ~~product development man in the pharmaceutical~~ the Philadelphia Inquirer of Sunday, August 8, 1948.

I am thirty seven years of age, am

6823 Kindred Street,
Philadelphia 24, Pa.
August 8, 1948.

M-32, P.O. Box 3495
Philadelphia 22, Pa.

Dear Sir:

This letter is in answer to your advertisement which appeared in the Philadelphia Inquirer of Sunday, August 1, 1948. The position is that of a product development man in the pharmaceutical industry.

I am thirty seven years of age, am single, and have had a total of nineteen years of experience and education in the fields of chemistry and chemical engineering. The job specifications require a definite combination of training, practical background and ability which I am certain that I possess.

For the past two years, I have been employed as the chemist in charge of the laboratory for the firm of A. Brotman and associates, a chemical process development and [illegible] organization in

work with mixed iron and vanadium oxides; the yields were very poor, on the order of 8 to 10 %.

2. Next, the Canadian (Shawinigan) process, using V_2O_5 alone, was attempted. Here the yields were somewhat higher, in the neighborhood of 20 %, but a great deal of carbonization resulted, and this in turn coated the catalyst.

3. Through the modification of some German work described in an O.T.S. report, and using ZnO pellets in the reactor tube, excellent yields of 92 % were obtained. We based our changes in the process by recognizing that the mechanism of this reaction is not too far different from that developed by us to explain the role of KOH in the carbonyl - acetylene group of reactions.

Just one more note, and I trust this is not out of place. It is a pleasure to speak to someone in technical placement work who has a good knowledge of chemistry and chemical engineering.

Very truly yours,

6803 Kindred Street,
Philadelphia 24, Pa
July 28, 1948.

P-336 Inquirer

Dear Sir:

This letter is in answer to your advertisement for a chemist in the Philadelphia Inquirer of July 28, 1948.

I am thirty seven years of age, am single, and have had a total of nineteen years of experience and education in the field of chemistry. My technical background has included:

5 years of routine analytical work in both the

laboratory worker and ending as a research chemist. Below is given an outline of my professional experience and formal collegiate studies.

Experience

Firm A. Brothman and associates

Period May 1946 to June 1948

Mr. J. Hathaway

Dear Mr. Hathaway:

~~Enclosed~~ On the attached sheet is the recent photograph which I mentioned in my letter ~~but omitted~~ of August 1st — ~~inadvertently~~ I threw on overite I omitted this page from my résumé.

Very truly yours,

Harry Gold.

[illegible] for a Chemist in the Orbital Inquiry of July 28, 1949.

I am 37 years of age, single, a [illegible] education [illegible] and a total of 12 years of experience [illegible] in the field of chemistry. My technical [illegible] has included

5 years routine analytical work in the [illegible]

2 years [illegible] [illegible]

5 years research chemist in field of [illegible]

(all of the above work for the [illegible] Company)

In addition I did [illegible] have [illegible] chemistry for the period of 1 yr 8 mos in [illegible] with for the period [illegible] along [illegible] I am certain that I can [illegible] be competent [illegible] I would [illegible] a position as [illegible] along my [illegible] as well as. Would I have an interview?

Harry Gold 6823 Kindred St., Phila. 24, Pa

Born Dec. 12, 1910 Chemist, Ph.D.

Item 16: Experience

May, 1946 to Present

1. The improved method methacrylate monomer synthesis involves a novel method which eliminates the use of HCN and which is far more economical. An article describing some of the details of the process has just been published in the April, 1947, issue of "Chemical Engineering." It is by the assistant editor of that journal and is entitled a new process

economical

economical

economical Harry Gold

[illegible]

continuation sheet 5

II. Firm Penna. Sugar Co. and its subsidiaries

Intercompanied

6823 Kindred street,
Philadelphia 24, Pa
August 7, 1948.

Mr. B. Bright,
Atlantic Refining Co.,
Personnel Department,
3144 Passyunk ave.,
Philadelphia, Pa.

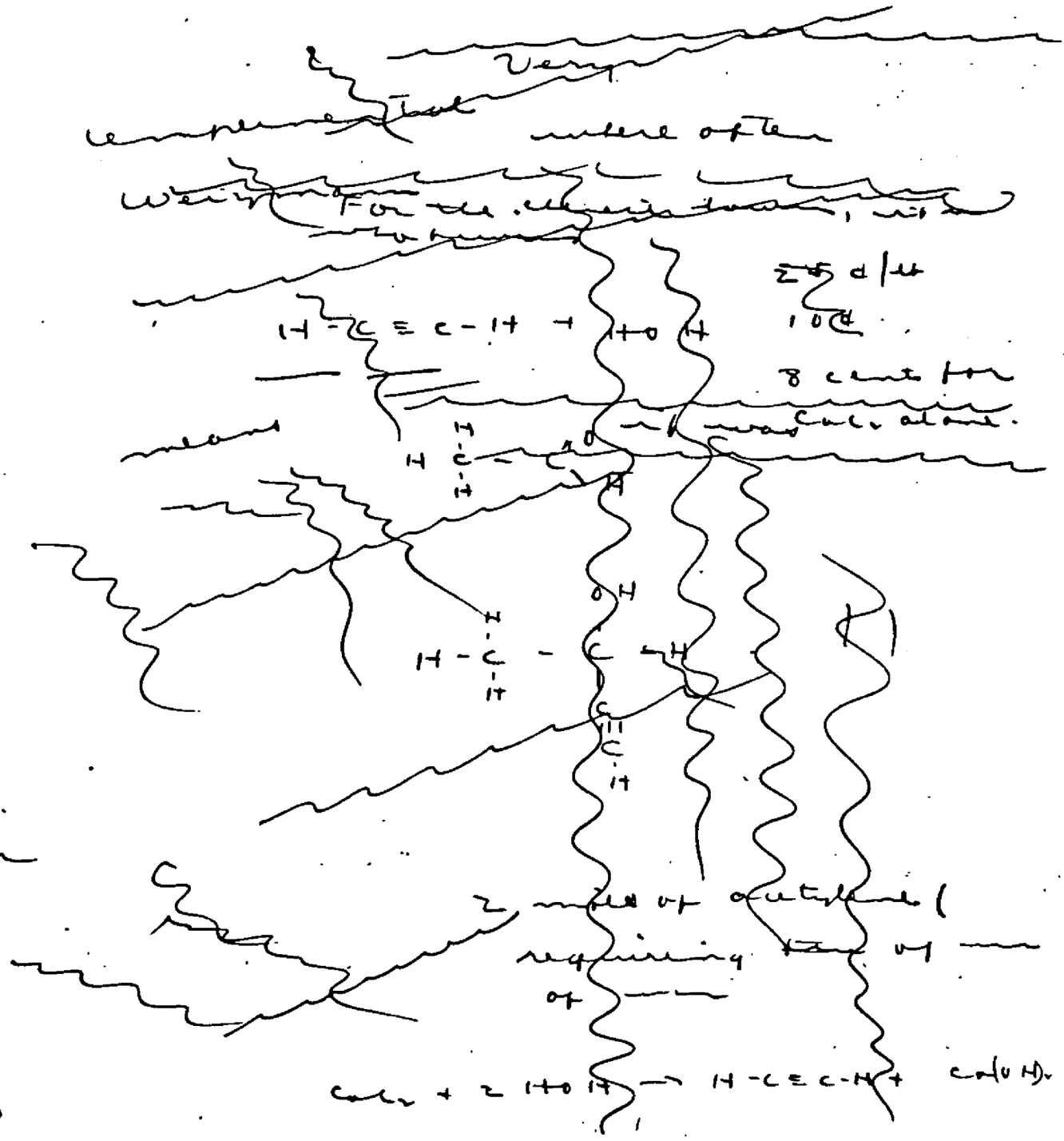
Dear Mr. Bright:

In the interview on Monday, August 2, 1948, I stated that I had done no work in the field of catalytic reactions (with the possible exception involving the use of KOH in the acetone-acetylene synthesis to form an acetylenic alcohol or glycol). This is in error, as part of our work

2

oxides; the yields were very poor, on the order of 8 to 10 % of theoretical.

2. Next, the Canadian (Shawinigan) process, using V_2O_5 alone, was attempted. Here the yields were somewhat higher



created a condition which made it necessary for me to leave New York — my father was left all alone in our home here and it was to be able to be with him that I decided to return to Philadelphia.

May I have an interview?

Very truly yours,

Harry

[illegible] a research [illegible].

This period may be divided thus:

a. Five years of routine control work in the sugar refinery. The duties here were strictly

[illegible]

6823 Kindred Street
Philadelphia 24, Pa
August 6, 1948

or B-359 Inquirer

Dear Sir:

This letter is in answer to your advertisement for a chemist in the Philadelphia Inquirer of Friday, August 6, 1948

I am thirty-seven years of age, am single, and have had a total of fourteen years of experience in the field of chemistry none of this previous work has been in the paint and protective coatings f

6823 Kindred Street
Philadelphia 24, Pa
August 6, 1948.

Box B-359, Inquirer,

Dear Sir:

This letter is in answer to your advertisement for a chemist in the Philadelphia Inquirer of Friday, August 6, 1948.

None of

completed the following:

(1) The setting up of a laboratory and the training of personnel for carrying out B. coli tests on Raw River Water.

(2) The successful completion of a program for the determination of the sources "canners' spoilage bacteria" in refined sugar and the development of methods for the elimination of these bacteria.

I was laid off in February 1946 on the closing of the distillery.

2. May, 1946 to present

6823 Kindred Street
Philadelphia 24, Pa
July 1, 1948.

6823 Kindred Street

6823 Kindred

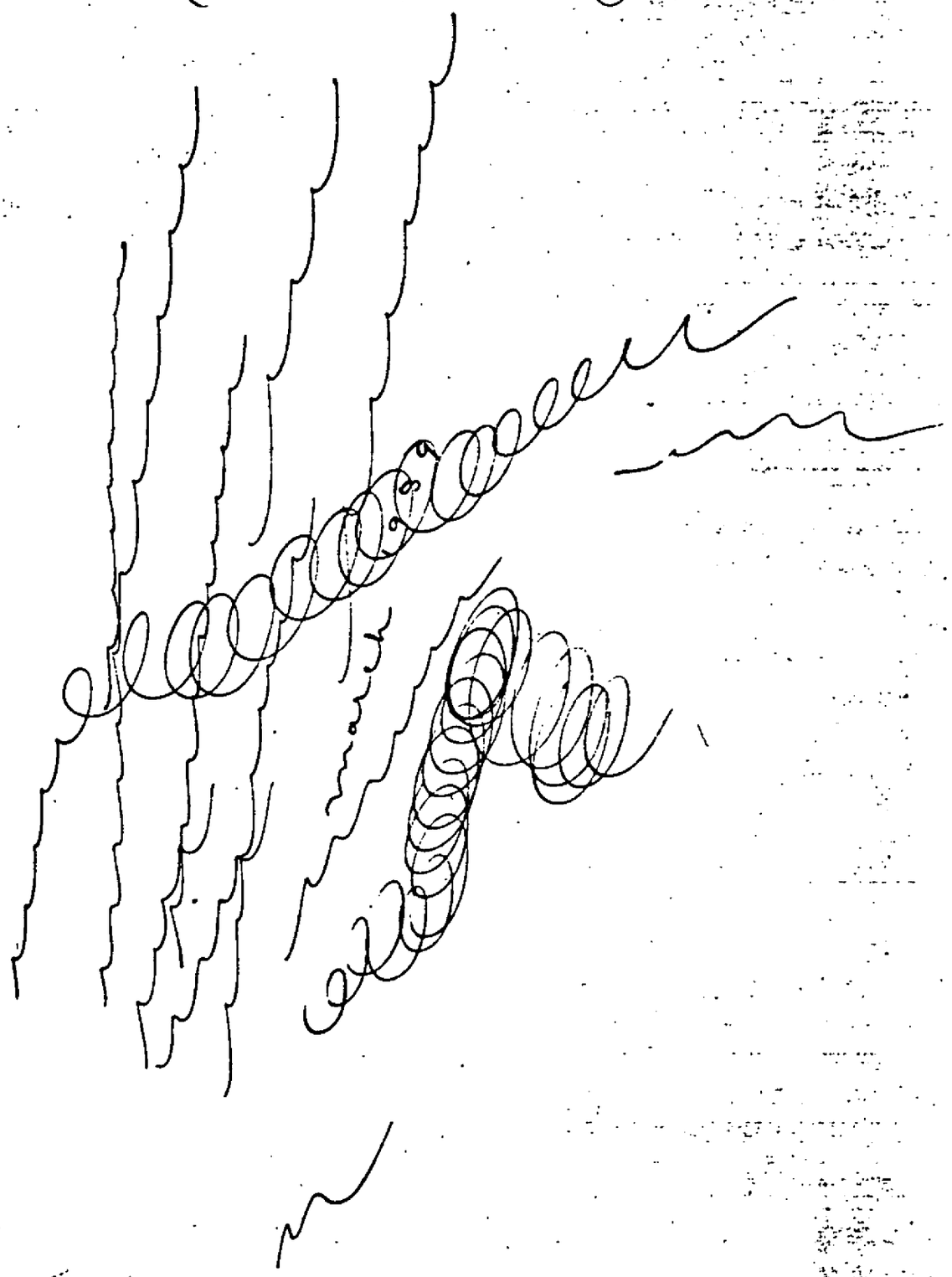
Box P106 Inquirer 8

Box P-106 Inquirer

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer of Thursday ~~June~~ June 3, 1948 for a organic chemist.

I am thirty ~~seven~~ years of age since I am thirty seven years of age, single, and have had a total of nineteen years of experience and education in the field of chemistry.



1941 to ~~[illegible]~~ April 1944

~~[illegible]~~ the microbiological assays for vitamin [illegible] and contents of by-products [illegible] Bv, and P.A [illegible] coincident with this plant production [illegible] Dougherty & D [illegible] work [illegible] [illegible], [illegible] the assays [illegible] required [illegible] the data for the assays [illegible] developed on the culture media [illegible] assays [illegible] ~~[illegible]~~ ran the assays [illegible] ~~[illegible]~~ had to develop [illegible] with [illegible] ~~[illegible]~~ methods for the reliable [illegible] methods for the functions in [illegible]

Also, we did work in [illegible] with the ~~[illegible]~~ of following the course of vit. [illegible] the [illegible]

1. during [illegible] processing & storage

2. the losses [illegible] of [illegible]

3. the [illegible] of a [illegible] the [illegible] the [illegible] without [illegible] the [illegible] assay values [illegible] fermentation yields (effects).

[illegible]

6823 Kindred street,
Philadelphia 24, Pa.
July 28, 1948.

n-336 Inquirer,

Dear Sir:

erifiable.

Below are given some pertinent data:

1. Thioglycolic acid (in the form of its ammonium salt) is used very extensively in the so-called 'cold wave' kits; it is used as a 4 to 6 % solution. The firm for which the process was developed is The Stanton

which I am certain that I possess. Below is given a summary of my previous professional experience and educational background.

I. Experience

Period of Employment – January 1929 to February 1946. There are two gaps during this time which

Pilot plant

Pilot plant work on the development of a process

680 Kindred Street,
Philadelphia 24, Pa.
July 15, 1948.

Dr. Harlan L. Tuthill,
Smith, Kline and French Laboratories,
800 N. Delaware avenue,
Philadelphia, Pa.

Dear Dr. Tuthill:

I submit the following brief description of the thioglycolic acid process which was developed during my stay in charge of the laboratory at A. Brothman and associates. While I gave a verbal account of this process in my interview on June 16, I now recall that no written material was handed over for inclusion in my record. I am particularly anxious to bring this to your attention because it re

C

6023 Kindred Street
Philadelphia 24, Pa
July 15, 1948.

r. Harlan L. Tuthill,
Smith, Kline and French Laboratories,
800 N. Delaware avenue,
Philadelphia, Pa.

ear Dr. Tuthill:

I submit the following brief description of the thioglycolic acid process which was developed at A. Brothman and associates during my stay as

~~upon my~~

6823 Kindred Street
Philadelphia 24, Pa.
July 15, 1948

Dr. Carlson

HILT

S

S

a - coumidinate
colate

my mother died last September
and since then

10.6.50

continuation sheet 1

experience

firm A Brothman and associates

period may 1946 to june 1947

for chief chemist

description of work - the above named firm is a chemical process development organization. During my stay as chief chemist the following projects were worked on and successfully completed

a novel process for the production of methyl methacrylate monomer ~~(fro~~ ~~polymerizable~~ starting with from acetone and acetylene as compared with the previous route via acetone and hydrocyanic acid. (the methyl methacrylate when polymerized results in the plastic material known as 'lucite' or 'plexiglas'.) the ~~the~~ acetone - acetylene synthesis is consider

C

in the by-product feed yeast produced by molasses fermentation

b. Working out of improvements in the assay methods for factors of the B complex.

c. Production of special cultures designed to increase the Thiamin, pantothenic acid and Riboflavin content of the feed yeast.

d.

[illegible]

(722) Kindel

Harry Gold

Mr. Joseph Gold

Joseph Gold

Harry Gold

Harry Gold

Box N-228 Inquirer

6823 Kindred Street,
Philadelphia 24, Pa.
May 23, 1948.
(Harry Gold)

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer of Sunday May 23, 1948 for a chemist.

I am thirty-seven years of age and am at present employed as chief chemist for the firm of A. Brothman and associates, a chemical process development engineers in New York City; though I work in New York all week, I return to my home in Philadelphia for week ends.

My mother died last February & since then my father & brother have lived in Philadelphia.

Friday

A. Perl

6703 Kingsley Street,
Philadelphia 24, Pa.
May 23, 1948

Box N-228 Inquirer,

Dear Sir:

This letter is in answer to your advertisement for a chemist in the Philadelphia Inquirer of Sunday May 23, 1948.

I am certain that I have the ~~qualifications~~ exact combination of training & ability & experience to enable me to adequately fill the job. Below is ~~an outline of~~ the ~~education~~ background & previous professional ~~experience~~ experience

I Experience

From January 1929 to Feb. 1946 Pennsylvania Sugar Co. & Subsidiaries

period of employment | Name of date to discovery Sugar due to your to schooling

work

from 1944 to Apr 1946. - Routine analytical work in Sugar Laboratory

(1)

Experience

Firm Penna. Sugar Co. (and Subsidiaries)

Period January 1929 to February 1946

I worked for the Penna. Sugar Co. and its various divisions for a seventeen year period ~~interrupted~~ broken up only by two

a few years ago and had been recommended as a use for very poor quality oil; in fact, even crankcase oil will perform quite well. This process utilizes the well known dehydrogenating action of sulfur.

all of the above can be

2. Mr. John

Résumé of Experience and

and

Education

Description of work — ()

Here again, Mr. Dougherty and I worked together on an equal basis; two divisions of the company were served, the distillery and the sugar refinery. our responsibilities included:

1. For the Distillery

6823 Kindred Street
Philadelphia 24, Pa
August 1, 1948

-96, P.O. Box 3414
hiladelphia 22, Pa.

ear Sir:

This letter is in answer to your dvertisement for a chemical engineer in the Philadelphia Inquirer of Sunday ugust 1, 1948.

I am thirty seven years of age; am ingle, and have had a total of nineteen ears of experience and education in the fields of chemistry and chemical engineering. The job specifications require a definite combination of training, practical background and ability which I am certain

6723 Kindred Street,
Philadelphia 24, Pa.
May 23, 1948.

Box N-228 Inquirer

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer of Sunday May 23, 1948 for a chemist.

I am thirty seven years of age, single, and have had a total of twenty years of experience and education in the field of chemistry. The job specifications require a ~~[illegible]~~ definite combination of training experience and ability which I am certain that I possess.

I am employed in New York as chief chemist for the firm of

A. Brothman and associates
29-28 41st avenue
Long Island City

6823 Kindred Street,
Philadelphia 24, Pa
August 1, 1948.

L-96, P.O. Box 3414
Philadelphia 22, Pa.

Dear Sir:

This letter is in answer to your advertisement in the Philadelphia Inquirer

6823 Kindred Street
Philadelphia 24, Pa
August 1, 1948.

?-96, P.O. Box 3414
Philadelphia 22, Pa.

C

6825 Kindred Street,
Philadelphia 24, Pa.
August 1, 1948

-96, P.O. Box 3414
Philadelphia 22, Pa.

Dear Sir:

This letter is in answer to your

1946 - Jan. 1947

[illegible]

[illegible] work at a [illegible] of [illegible]
[illegible] principally [illegible] in
[illegible] C.O.A.R.C. on the development
[illegible] of a [illegible] [illegible]

[illegible] Maize [illegible]
[illegible] welding [illegible]

I worked (principally [illegible]) on [illegible]
methods of [illegible] of Vitamins B1,
B2 & C ([illegible]) & [illegible]
on P.A., Niacin & Pyridoxine B6.

[illegible] 1944 to [illegible] 1946 on [illegible] Dry Co. (II Parts)
[illegible] Tech. Centre
[illegible] [illegible] in [illegible]
[illegible] of [illegible]
[illegible] the production of alcohol &
the fermentation by-products - solid &
[illegible] [illegible]
[illegible] third fermentation [illegible]
[illegible] of [illegible]
[illegible] used as
[illegible] out of [illegible] [illegible] from [illegible]
[illegible] the [illegible] of [illegible] & [illegible]
[illegible] (starch [illegible] [illegible])
[illegible] of [illegible] [illegible]

II - Work on C

A. Preparation of ~~the~~ drying methods for thermophilic bacteria cultures on Cornmeal Starch Agar. These media are capable of growing & forming at 50° C & later round swelling of cells occurred in food processing. The data had been laid down by the National Canners Assn. Labs in Washington & it was hard for them to do work on the fundamental processes — physiology of the organisms by canners.

B. Development of ~~water~~ lab for carrying up tests for B. coli over the Water Treatment system for the Philippines.

The reason for the work ~~The above~~ being done in the Sutliff Laboratories was that and had the basic equipment (large scale autoclaves & incubators) & facilities (rooms) for carrying ~~out~~ and more work.

continued

a few years ago and had been recommended as a sub for very poor quality oil; in fact, in an emergency even crankcase oil can be substituted.

well known

my part

ripiable.

Below is given

6805 Windrim Street
Philadelphia 24, Pa.
June 15, 1948.

Dr. Harlan L. Trithill
Smith, Kline and French Laboratories

$$\frac{S - S}{1 + S}$$

$$1 + S$$

6823 Kindred Street,
Philadelphia 24, Pa
July 15, 1948.

r. Harlan L. Tuthill,
Smith, Kline and French Laboratories,
800 N. Delaware Avenue,
Philadelphia, Pa.

Dear Dr. Tuthill:

I submit the following brief description of the thioglycolic acid process which was developed during my stay at A.

6803 Kindred Street,
Philadelphia 24, Pa
July 2

Continuation sheet 10

Description of Work —

The two divisions of the company were concerned here.

Con ~~[illegible]~~

" ~~[illegible]~~

Con

Continuation sheet 10

Penna Sugar Co.
1037 N. Delaware Ave
P market

Dear Dr. Myers:
I enclose a completed appli
for market
Cutting
market
1909

	6	6	6	6	
			8		
			2		
			2	3 - E	3
				3 - T	6
			12	3 - S.V.	
			2	3 A.C.	
			16	6	
		16			
		6			
		22			

	8	12	9	3 3
	5			
Inorg chem.	3	6		
Qual and	3	6		
Quantitative and	6	12		
organic chem	8	18	3	
physical chem.	6	6		6
physics	9	3		6
mathematics	20			
English	24			
Languages				
chem. Eng.	11			
	11			
	6	5		
	12	10		

Experience

Firm A. Rothman and Associates

Period May 1946 to June 1948

for Chief Chemist

Description of work -

The above named firm is a chemical process development organization. During my stay

4

(6)

Description of Work — O

Here again, Mr. Dougherty and I worked together on an equal basis; our

[illegible] providing the third [illegible] voice in from [illegible], although we succeeded in modifying the process so that this problem never was brought upon.

There were so serious that the Italy & Israeli authorities had [illegible] to shut the plan down.

c. ~~[illegible]~~

~~[illegible] of H.S were available~~

Even the question of H.S presented a problem. Due to the unique [illegible] FEDCOM [illegible] required [illegible] to be [illegible] to be [illegible] adapted & [illegible] to the [illegible] in which [illegible] a low grade [illegible] [illegible] to wild & [illegible] H.S; the [illegible] that were [illegible] [illegible] cross-cone [illegible] were used.

all of the above can be [illegible]

~~during my telephone conversations with~~ you

I am particularly anxious to secure it quickly as I would have an unexpected [illegible] very high

~~I had~~ submitted the following

decision of the thioglycollic acid [illegible] discussed with Mr. Morton & associates for addition to my record. While I gave a verbal ~~description~~ of this process ~~[illegible]~~ ~~during~~ to you, during my interview, I have recall that no written material was submitted. The following details facts; all pertinent:

~~From there are more than one divisions [illegible] for the [illegible] of [illegible] to [illegible] [illegible] a for this [illegible] of [illegible]~~

Essentially it involves the reduction by exchange Thiourea with H.S. over the period from 1946 to 1947.

1. Thioglycollic acid (in the form of its Na salt) is used as a reducing in the [illegible] stage. The process was developed for the Pfizer [illegible] of Pfizer who [illegible] about 1.040 the [illegible] production in the U.S.

Na Initially we undertook to solve the [illegible] of the [illegible] odors

①

Experience

Firm. Penna. Sugar Co. (and subsidiaries)

Period January 1929 to February 1946.

I worked for the above firm

[illegible]

Record during this time is [illegible]

Below is a factual [illegible]

Experience

Experience

Firm Penna. Sugar Co. (and subsidiaries)

Period January 1929 to February 1946.

quantitatively ~~excluded~~ were:

B2

4. Period April 1943 to February 1946.

Job chemist

quantitatively well:

B_2, Riboflavin

Pantothenic acid

Niacin

Pyridoxine

~~and we developed first among the earlier [illegible] and particularly [illegible] that [illegible] research [illegible]~~

affairs of the Republic of China" and
was a part of their program designed

18. CONTINUED

Dates of employment: (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

Dates of employment: (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

Dates of employment: (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

Dates of employment: (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

If more space is required, use a continuation sheet (Standard Form No. 56) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

ab—16—47359-1

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (e) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in First Special Service School?

(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

(e) Second Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(f) What were you taught in Second Special Service School?

(g) Duty assignment after this training:

Dates of duty assignment (months, years):

From: To:

(h) What did you do during this duty assignment?

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 (12)

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☑ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit
		Jan 1925	Aug. 1928	4				

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	READING Good	READING Fair	SPEAKING Exc.	SPEAKING Good	SPEAKING Fair	UNDERSTANDING Exc.	UNDERSTANDING Good	UNDERSTANDING Fair
German	✓					✓		✓	
French	✓					✓			✓

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

Due 05.9.9

23. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?		
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
27. Within the past 12 months, have you habitually used intoxicating beverages to excess?		
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service, amount of retirement pay, and under what retirement act, and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
33. Have you ever had a nervous breakdown? If your answer is "Yes," give complete details in Item 38.		
34. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
36. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		

(d)

Date of entry or entries into service:	Date of separation or separations:	
Branch of service (Army, Navy, M. C., C. G., etc.)	Grade (rank) or rating at time of separation:	Serial No.

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____ 19____

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____ Signature of applicant _____

(Sign your name in INK (one given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name as "Mrs. Mary L. Doe.")

GPO 16-42220-1

Standard Form 57—December 1945
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R046.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) (Middle) (Maiden, if any) (Last)
Harry Gold

5. Street and number or R. D. number:
6323 Kindred Street

City or post office (including postal zone), and State:
Philadelphia 24, Penna.

6. Legal or voting residence (State): Pennsylvania

7. Office phone No.: Newtown 9-6093 New York City

Home phone: Pilgrim 5-8492

8. Place of birth (city and State; if born outside U. S., name city and country):
Bern, Switzerland

9. Date of birth (month, day, year): Dec. 12, 1910

10. Age last birthday: 36

11. ☒ Male ☐ Female

12. ☐ Married ☒ Single

13. Height without shoes: 5 feet 6 inches Weight: 160 pounds

SELECTION No.

14. Have you ever been employed by the Federal Government? ☐ Yes ☒ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.	Material ☐ Submitted ☐ Returned	Entered register:
Notations:	App. Review: Approved:	

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (test.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disal.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
15. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		
3 to 6 months?		
6 to 12 months?	Yes	
(b) Would you accept appointment, if offered— in Washington, D. C.?		
anywhere in the United States?	Yes	
outside the United States?		

15. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:

(d) What is the lowest entrance salary you will accept: $ _____ per year.

You will not be considered for positions paying less.

(e) If you are willing to travel, specify:
☐ Occasionally ☒ Frequently ☐ Constantly

16. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).

(a) If you were ever employed in any position under a name different from that shown in item 4 of this application, give under "Description of your work" for each position, the name used.

(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: To present time

Exact title of your present position:

Salary or earnings:
Starting, $ per
Present, $ per

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for desiring to change employment:

Description of your work:

(CONTINUED ON NEXT PAGE)

17. MILITARY EXPERIENCE.—In order to make the [illegible] effective placements of war veterans, detailed information is [illegible]d about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (c) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in First Special Service School?

(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

(e) Second Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(f) What were you taught in Second Special Service School?

(g) Duty assignment after this training:

Dates of duty assignment (months, years):

From: To:

(h) What did you do during this duty assignment?

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 (12)

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☒ Senior High School

(a) Give name and location of last high school attended: South Philadelphia High School

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit
University of Pennsylvania	Chem.	1920	1922	1½				
Drexel Institute Evening School	Chemistry	1924	1926	2½	2½			
Xavier University (Cincinnati, Ohio)	Chem	1922	1940	2		B.S.	June, 1940	

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours
Chemistry			
Chemical Engineering			
Mathematics			
English			

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	READING Good	READING Fair	SPEAKING Exc.	SPEAKING Good	SPEAKING Fair	UNDERSTNG Exc.	UNDERSTNG Good	UNDERSTNG Fair
German	X					X		X	
French	X					X			X

(a) How was your knowledge of foreign languages acquired?
High School and College Study

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.) ___

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc. _____

31. CONTINUED

Dates of employment: (Month, year) From: To:	Exact title of your position:	Salary or earnings: Starting $ per Final $ per
Place of employment (city and State):	Description of your work:	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:		
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):		
Number and kind of employees supervised by you:		
Name and title of immediate supervisor:		
Reason for leaving:		

Dates of employment: (Month, year) From: To:	Exact title of your position:	Salary or earnings: Starting $ per Final $ per
Place of employment (city and State):	Description of your work:	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:		
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):		
Number and kind of employees supervised by you:		
Name and title of immediate supervisor:		
Reason for leaving:		

Dates of employment: (Month, year) From: To:	Exact title of your position:	Salary or earnings: Starting $ per Final $ per
Place of employment (city and State):	Description of your work:	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:		
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):		
Number and kind of employees supervised by you:		
Name and title of immediate supervisor:		
Reason for leaving:		

Dates of employment: (Month, year) From: To:	Exact title of your position:	Salary or earnings: Starting $ per Final $ per
Place of employment (city and State):	Description of your work:	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:		
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):		
Number and kind of employees supervised by you:		
Name and title of immediate supervisor:		
Reason for leaving:		

If more space is required, use a continuation sheet (Standard Form No. 58) on a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

ob—16—47220-1

HB CS-7-7

23. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?	X	
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		X
27. Within the past 12 months, have you habitually used intoxicating beverages to excess		X
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		X
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		X
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service; amount of retirement pay, and under what retirement act; and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		X
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.	X	
33. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		X
34. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		X

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		X
36. (a) Were you ever in the United States Military or Naval Service during time of War?		X
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		

(d)

Date of entry or entries into service	Date of separation or separations

Branch of service (Army, Navy, M. C., C. G., etc.)	Serial No. (If none, give grade or rating at time of separation.)

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____ 19____

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	
32	(1) Joseph Gold		
	(2) 6223 Kindred St., Phila. 24, Pa.		
	(3) Brother		
	(4) Veteran's Administration (veteran)		
	(5) Temporary		
	18 yrs.		

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me to this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____ Signature of applicant Harry Gold

(Sign your name in INK (one given name, initial, or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name, as "Mrs. Mary L. Doe.")

Phila Reg. Loan Insurance Office

Standard Form 57—June 1946
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R045.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) Harry (Middle) (Maiden, if any) (Last) Gold

5. Street and number or R. D. number: 6323 Kindred Street

City or post office (including postal zone), and State: Philadelphia 24, Penna.

6. Legal or voting residence (State): Pennsylvania

7. Office phone No.: Newtown 9-6093 New York City

Home phone: Pilgrim 5-2492

8. Place of birth (city and State; if born outside U. S., name city and country): Bern, Switzerland

9. Date of birth (month, day, year): Dec. 12, 1910

10. Age last birthday: 36

11. [X] Male [ ] Female

SELECTION No.

12. [ ] Married [X] Single

13. Height without shoes: 5 feet 6 inches Weight: 160 pounds

14. Have you ever been employed by the Federal Government? [ ] Yes [X] No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

[ ] Appor. [ ] Non-appor.
Material: [ ] Submitted [ ] Returned
Entered register:
Notations:
App. Review:
Approved:

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			[ ] 5 points (ment.)	
			[ ] 10 points	
			[ ] Wife or Widow	
			[ ] Disab.	
			[ ] Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
16. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		No
3 to 6 months?		No
6 to 12 months?		No
(b) Would you accept appointment, if offered— in Washington, D. C.?		Yes
anywhere in the United States?		
outside the United States?		

16. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:

(d) What is the lowest entrance salary you will accept: $ _____ per year.

You will not be considered for positions paying less.

(e) If you are willing to travel, specify: [X] Occasionally [ ] Frequently [ ] Constantly

18. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).

(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.

(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: May, 1946 To present time

Place of employment (city and State): New York, N.Y.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
A. Brethman and Associates
29-28 41st Street, L.I. City

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Chemical and Mechanical Engineers

Number and kind of employees supervised by you: 4,
2 Chemists
1 Chemical Engineer
1 Lab. Assistant

Name and title of immediate supervisor:
Mr. A. Brethman, Chief Engineer

Reason for desiring to change employment:

Exact title of your present position: Chief Chemist

Salary or earnings:
Starting $5200 per year
Present $5200 per year

Description of your work:

(CONTINUED ON NEXT PAGE)

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (e) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:	(b) What were you taught in First Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):	(d) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	
(e) Second Special Service School attended:	(f) What were you taught in Second Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(g) Duty assignment after this training:	(h) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 12

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☐ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Rem.	READING Cond.	READING Poh.	SPEAKING Rem.	SPEAKING Cond.	SPEAKING Poh.	UNDERSTNG Rem.	UNDERSTNG Cond.	UNDERSTNG Poh.

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

10. CONTINUED

Dates of employment: (Month, year)
From: April, 1944 To: Feb., 1946.
Place of employment (city and State):
Philadelphia, Penna.
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Pennsylvania Sugar Co.
(Alcohol Division)
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Manuf. of Alcohol and By-Products
Number and kind of employees supervised by you:
3 Routing Chemists
1 Lab. Assistant
1 Plant Operator
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ per; Final $ per
Description of your work:

Dates of employment: (Month, year)
From: To:
Place of employment (city and State):
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Number and kind of employees supervised by you:
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ per; Final $ per
Description of your work:

Dates of employment: (Month, year)
From: To:
Place of employment (city and State):
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Number and kind of employees supervised by you:
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ per; Final $ per
Description of your work:

Dates of employment: (Month, year)
From: To:
Place of employment (city and State):
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Number and kind of employees supervised by you:
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ per; Final $ per
Description of your work:

If more space is required, use a continuation sheet (Standard Form No. 58) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of application.

Standard Form 57—June 1946
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R048.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:
Chemist, P3

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) (Middle) (Maiden, if any) (Last)
Harry Gold

5. Street and number of R. D. number:
6823 Kindred Street

City or post office (including postal zone), and State:
Philadelphia 24, Penna.

6. Legal or voting residence (State): 7. Office phone No.: Home phone:

8. Place of birth (city and State; if born outside U. S., name city and country):

9. Date of birth (month, day, year): 10. Age last birthday: 11. ☐ Male ☐ Female

SELECTION No.

12. ☐ Married ☐ Single 13. Height without shoes: ____ feet ____ inches Weight: ____ pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☐ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.	Material ☐ Submitted ☐ Returned	Entered register:
Notations:	App. Review: Approved:	

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (ment.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disab.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
15. (a) Would you accept short-term appointment, if offered, 1 to 3 months?		
3 to 6 months?		
6 to 12 months?		
(b) Would you accept appointment, if offered— to Washington, D. C.?		
anywhere in the United States?		
outside the United States?		

15. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:

(d) What is the lowest entrance salary you will accept: $____ per year.
You will not be considered for positions paying less.

(e) If you are willing to travel, specify: ☐ Occasionally ☐ Frequently ☐ Constantly

16. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).
(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.
(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: To present time

Exact title of your present position:

Salary or earnings:
Starting, $ per
Present, $ per

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for desiring to change employment:

Description of your work:

(CONTINUED ON NEXT PAGE)

23. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?		
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence?		
If your answer is "Yes," give complete details in Item 38.		
27. Within the past 12 months, have you habitually used intoxicating beverages to excess?		
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)?		
If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position?		
If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service?		
If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 3 years' service; amount of retirement pay, and under what retirement act; and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality?		
If your answer is "Yes," give details in Item 38.		
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months?		
If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
33. Have you ever had a nervous break-down?		
If your answer is "Yes," give complete details in Item 38.		
34. Have you ever had tuberculosis?		
If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever?		
If your answer is "Yes," give complete details in Item 38.		
36. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		

(d)

Date of entry or entries into service	Date of separation or separations
Branch of service (Army, Navy, M. C., C. G., etc.)	Serial No. (If none, give grade or rating at time of separation.)

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____ 19__

Agency: _____ Title: _____

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____ Signature of applicant _____ (Sign your name in INK (one given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name as "Mrs. Mary L. Doe.")

GPO 49-19-47388-2

17. MILITARY EXPERIENCE.—In order to make the [illegible] effective placements of war veterans, detailed information [illegible]ded about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If [illegible] attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (e) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:	(b) What were you taught in First Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):	(d) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	
(e) Second Special Service School attended:	(f) What were you taught in Second Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(g) Duty assignment after this training:	(h) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed: 1 2 3 4 5 6 7 8 9 10 11 (12)

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☒ Senior High School

(a) Give name and location of last high school attended: [illegible]

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	READING Good	READING Fair	SPEAKING Exc.	SPEAKING Good	SPEAKING Fair	UNDERSTNG Exc.	UNDERSTNG Good	UNDERSTNG Fair

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

CONTINUED ON NEXT PAGE

28. CONTINUED

Dates of employment: (Month, year) From: [illegible] 1946 To: [illegible] 1946
Place of employment (city and State):
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Number and kind of employees supervised by you:
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ [illegible] per; Final $ [illegible] per
Description of your work: 1. Supervising and [illegible] work [illegible] assisting at letting the [illegible] of air from [illegible] flour & molasses.
2. Supervision of tech. control in [illegible]
3. Letting [illegible] & taking of samples for [illegible] and [illegible] [illegible] water

Dates of employment: (Month, year) From: [illegible] 1945 To: March 1946
Place of employment (city and State):
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Number and kind of employees supervised by you:
Name and title of immediate supervisor:
Reason for leaving:

Exact title of your position:
Salary or earnings: Starting $ per; Final $ per
Description of your work: 1. [illegible] [illegible] [illegible]

24. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

25. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
26. Are you a citizen of the United States?		
27. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
28. Within the past 12 months, have you habitually used intoxicating beverages to excess?		
29. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
30. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
31. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service; amount of retirement pay, and under what retirement act; and rating if retired from military or naval service.		
32. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
33. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
34. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		
35. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
36. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
37. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		

(d)

Date of entry or entries into service	Date of separation or separations	
Branch of service (Army, Navy, M. C., C. G., etc.)	Grade (rank) or rating at time of separation	Serial No.

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on ..... 19.....

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____ Signature of applicant _____
(Sign your name in INK (any given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name: "Mrs. Mary L. Doe.")

ers 4—19—17999-1

Standard Form 57—December 1949
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved. Budget Bureau No. 50-R040.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for: Chemist, P-2

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. / Mrs. / Miss (First name) Harry (Middle) (Maiden, if any) (Last) Arnold

5. Street and number of R. D. number: 6723 Kindred St.

City or post office (including postal zone), and State: Philadelphia 7, Pennsylvania

6. Legal or voting residence (State): Pennsylvania

7. Office phone No.: [illegible]

Home phone: [illegible]

8. Place of birth (city and State; if born outside U. S., name city and country): Berne, Switzerland

9. Date of birth (month, day, year): Dec. 12, 1918

10. Age last birthday: 26

11. ☒ Male ☐ Female

SELECTION No.

12. ☐ Married ☒ Single

13. Height without shoes: 5 feet 6 inches Weight: 140 pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☒ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.

Material: ☐ Submitted ☐ Returned

Entered register:

Notations:

App. Review:

Approved:

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (test.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disal.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column

	YES	NO
15. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		X
3 to 6 months?		X
6 to 12 months?		X
(b) Would you accept appointment, if offered— in Washington, D. C.?	X	
anywhere in the United States?		
outside the United States?		

16. (a) If you will accept appointment in certain locations ONLY, give acceptable locations: anywhere in the United States

(b) What is the lowest entrance salary you will accept: $4,149 per year.

You will not be considered for positions paying less.

(c) If you are willing to travel, specify: ☒ Occasionally ☐ Frequently ☐ Constantly

18. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).

(a) If you were ever employed in any position under a name different from that shown in item 4 of this application, give under "Description of your work" for each position, the name used.

(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year) From: May, 1946 To present time

Exact title of your present position: chief chemist

Salary or earnings: Starting $5,400 per year Present $5,400 per year

Place of employment (city and State): New York, N.Y.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division: [illegible] Associates 29-29 41st Street, Long Island City

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.): chemical

Number and kind of employees supervised by you: 1 laboratory [illegible]

Name and title of immediate supervisor:

Reason for desiring to change employment: [illegible]

Description of your work: 1. Development of a [illegible] 2. Need and Study of [illegible] Polymerization of [illegible] to form [illegible] 3. The extension of the [illegible] of the [illegible] (the [illegible] additive [illegible]) to the [illegible] including [illegible], [illegible], [illegible] and [illegible].

(CONTINUED ON NEXT PAGE)

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (c) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:	(b) What were you taught in First Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):	(d) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	
(e) Second Special Service School attended:	(f) What were you taught in Second Special Service School?
Location:	
Dates attended (months, years): From: To:	
Rating received at end of this training:	
(g) Duty assignment after this training:	(h) What did you do during this duty assignment?
Dates of duty assignment (months, years): From: To:	

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 12

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☐ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	Good	Fair	SPEAKING Exc.	Good	Fair	UNDERSTNG Exc.	Good	Fair

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

16. CONTINUED

Dates of employment: (Month, year) From: To:	Exact title of your position: Supervisor of Technical Bee Control.
Salary or earnings: Starting $ 2,700 per year; Final $ 3,200 per year	
Place of employment (city and State):	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work: 1. Carrying out of Experimental work aimed at bettering the yeast culture, yield of alc. in Distillery. 2. Supervision of all control work in Distillery. ~~including fermentation~~
Kind of business or organization (e. g., wholesale silk, insurance agency, mfr. of locks, etc.):	Sugar Refinery
Number and kind of employees supervised by you:	1. Setting up of a laboratory and training of personnel for carrying out B. Coli tests on Raw Water
Name and title of immediate supervisor:	2.
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position: Research Chemist
Salary or earnings: Starting $ per; Final $ per	
Place of employment (city and State):	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work: A microbiological Assays for factors of the B complex in By-Product Food Yeast produced by Molasses Fermentation. 2. Improvements in assay methods for ~~determ~~ factors of the B complex. 3. ~~Com~~ Development of Several cultures suitable for improving the vitamin B ~~and Protein~~ content of ~~[illegible]~~ by Thiamin, Riboflavin and Folic Acid
Kind of business or organization (e. g., wholesale silk, insurance agency, mfr. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position: Chemist
Salary or earnings: Starting $ per; Final $ per	
Place of employment (city and State):	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work: Pilot plant work on the development of a process for the recovery of Co2 from Stack Gases. This Included: 1. Construction, design and operation of the Absorption and Desorption ~~Sys~~ Eqn. 2. Development of rapid and more accurate method for det. of CO_2 & H_2O_2 rates. 3. Report writing of Report covering all phases of Project.
Kind of business or organization (e. g., wholesale silk, insurance agency, mfr. of locks, etc.):	
Number and kind of employees supervised by you: one - Mechanic	
Name and title of immediate supervisor:	
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position:
Salary or earnings: Starting $ per; Final $ per	
Place of employment (city and State):	
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work: Routine analytical work in Sugar Refinery
Kind of business or organization (e. g., wholesale silk, insurance agency, mfr. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

If more space is required, use a continuation sheet (Standard Form No. 58) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this location.

16—47289-8

mc 09-9-09

22. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?		
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
27. Within the past 12 months, have you habitually used intoxicating beverages to excess		
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service; amount of retirement pay, and under what retirement act; and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
33. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		
34. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
36. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis with full military pay and allowances?		

(d)

Date of entry or entries into service:	Date of separation or separations:
Branch of service (Army, Navy, M. C., C. G., etc.)	Serial No. (If none, give grade or rating at time of separation.)

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____, 19____

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____ Signature of applicant _____
(Sign your name in INK (one given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name as "Mrs. Mary L. Doe.")

GPO 16—47280-6

Standard Form 57—June 1946
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R046.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:
Chemist, P3

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) (Middle) (Maiden, if any) (Last)
Harry Gold

5. Street and number or R. D. number:
6223 Kindred Street

City or post office (including postal zone), and State:
Philadelphia 24, Penna.

6. Legal or voting residence (State): Pennsylvania

7. Office phone No.: Newtown 9-6093 New York City

Home phone: Pilgrim 5-8492

8. Place of birth (city and State; if born outside U. S., name city and country):
Bern Switzerland

9. Date of birth (month, day, year): Dec. 12, 1910

10. Age last birthday: 36

11. ☒ Male ☐ Female

SELECTION No.

12. ☐ Married ☒ Single

13. Height without shoes: 5 feet 6 inches Weight: 140 pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☒ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.
Material: ☐ Submitted ☐ Returned
Entered register:

Notations:
App. Review:
Approved:

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (ent.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disab.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
18. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		X
3 to 6 months?		X
6 to 12 months?		X
(b) Would you accept appointment, if offered— in Washington, D. C.?	X	
anywhere in the United States?		X
outside the United States?		X

18. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:
Anywhere in the Eastern United States

(d) What is the lowest entrance salary you will accept: $4,149 per year.
You will not be considered for positions paying less.

(e) If you are willing to travel, specify: ☐ Occasionally ☒ Frequently ☐ Constantly

16. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).
(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.
(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: May, 1946 To present time

Exact title of your present position:
Chief Chemist

Salary or earnings:
Starting, $5200 per year
Present, $8200 per year

Place of employment (city and State):
New York, N.Y.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
A. Brethmen and Associates
29-28 41st Ave., Long Island City

Kind of business or organization (e. g., wholesale silk, insurance agency, mfr. of locks, etc.):
Chemical Process Engineers

Number and kind of employees supervised by you:
3 Chemists
1 Lab. Assistant

Name and title of immediate supervisor:
Mr. A. Brethmen, Chief Engineer

Reason for desiring to change employment:
Financial Instability of Firm

Description of your work: We have just completed:
1. The development of an improved synth. for Methyl Methacrylate Monomer from Acetone and Acetylene.
2. New Methods for the emulsion polymerization of Methyl Methacrylate and Polystyrene to Molding Powder
3. The extension of the basic Carbonyl - Acetylene Reaction to form Maleic Anhydride, Iso Fr. Lactic Acid, ~~and~~ Propargyl Alc Et
(See Continuation Sheet 1).

(CONTINUED ON NEXT PAGE)

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (c) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in First Special Service School?

(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

(e) Second Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(f) What were you taught in Second Special Service School?

(g) Duty assignment after this training:

Dates of duty assignment (months, years):

From: To:

(h) What did you do during this duty assignment?

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 12

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☐ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended		Years Completed		Degrees Conferred		Semester Hours Credit
		From—	To—	Day	Night	Title	Date	

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended		Years Completed	
	From—	To—	Day	Night

19. Indicate your knowledge of foreign languages:

	READING			SPEAKING			UNDERST'NG		
	Exc.	Good	Fair	Exc.	Good	Fair	Exc.	Good	Fair

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comp-

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

16. CONTINUED

Dates of employment (Month, year)
From: April, 1944 To: Jan., 1946.

Place of employment (city and State):
Philadelphia, Penna.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
Pennsylvania Sugar Co.
(Alcohol Division)

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Manuf. of Alcohol and By-Products

Number and kind of employees supervised by you:
3 Routine Chemists
1 Lab Assistant
1 Plant operator

Name and title of immediate supervisor:
Mr. Nemesio Alvaré

Reason for leaving:
Closing down of the Alcohol Plant

Exact title of your position:
Supervisor of Technical Control

Salary or earnings:
Starting $2100 per year
Final $2200 per year

Description of your work: A. For Distillery
1. Carrying out of experimental yeast cultures work aimed at bettering the yield of alcohol.
2. Supervision of all control work in the dis

Dates of employment (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

Dates of employment (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

Dates of employment (Month, year)
From: To:

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Exact title of your position:

Salary or earnings:
Starting $ per
Final $ per

Description of your work:

If more space is required, use a continuation sheet (Standard Form No. 58) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

ab-16-47288-1

23. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 18 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?		
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
27. Within the past 12 months, have you habitually used intoxicating beverages to excess?		
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service; amount of retirement pay, and under what retirement act; and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
33. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		
34. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
36. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		

(d)

Date of entry or entries into service	Date of separation or separations

Branch of service (Army, Navy, M. C., C. G., etc.)	Grade (rank) or rating at time of separation	Serial No.

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____, 19__

Agency: Title:

38. Space for detailed answers to other questions (Indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____

Signature of applicant _____
(Sign your name in INK (one given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name as "Mrs. Mary L. Doe.")

GPO 16—47300-1

Standard Form 57—December 1945
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R046.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:
Chemist, P3

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) (Middle) (Maiden, if any) (Last)
Harry Gold

5. Street and number or R. D. number:
6823 Kindred Street

City or post office (including postal zone), and State:
Philadelphia 24, Penna.

6. Legal or voting residence (State): Pennsylvania
7. Office phone No.: Newtown 9-6093 Home phone: Pilgrim New York, N.Y. 5-2492

8. Place of birth (city and State; if born outside U. S., name city and country):
Bern Switzerland

9. Date of birth (month, day, year): Dec. 12, 1910
10. Age last birthday: 36
11. ☒ Male ☐ Female

SELECTION No.

12. ☐ Married ☒ Single
13. Height without shoes: 5 feet 6 inches Weight: 160 pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☒ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.
Material: ☐ Submitted ☐ Returned
Entered register:
Notations:
App. Review:
Approved:

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (Ment.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disab.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
15. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		X
3 to 6 months?		X
6 to 12 months?		X
(b) Would you accept appointment, if offered— to Washington, D. C.?	X	
anywhere in the United States?		X
outside the United States?		X

15. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:
Anywhere in the Eastern United States.

(d) What is the lowest entrance salary you will accept: $4,149 per year.
You will not be considered for positions paying less.

(e) If you are willing to travel, specify: ☐ Occasionally ☒ Frequently ☐ Constantly

16. EXPERIENCE.—You are requested to furnish all information asked for below to sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).
(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.
(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: May, 1946 To present time

Exact title of your present position:
Chief Chemist

Salary or earnings:
Starting, $5200 per year
Present, $5200 per year

Place of employment (city and State):
New York, N.Y.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
A. Brethman and Associates
29-28 41st Ave., Long Island City

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Chemical Process Engineers

Number and kind of employees supervised by you:
3 Chemists
1 Lab. Assistant

Name and title of immediate supervisor:
Mr. A. Brethman, Chief Engineer

Reason for desiring to change employment:
Financial Instability of Firm.

Description of your work: 1. The development of an improved synthesis for Methyl Methacrylate Monomer from Acetylene and Acetone.
2. New methods for the emulsion polymerization of Methyl Methacrylate and Styrene to yield molding powders.
3. The extension of the basic carbonyl-acetylene reaction to form compounds such as Maleic Anhydride, Lactic Acid (1,2,3), Propargyl Alcohol and Butadiene.
(See Continuation Sheet No. 1)

(CONTINUED ON NEXT PAGE)

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (c) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in First Special Service School?

(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

(e) Second Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(f) What were you taught in Second Special Service School?

(g) Duty assignment after this training:

Dates of duty assignment (months, years):

From: To:

(h) What did you do during this duty assignment?

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 12

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☐ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit
Univ. of Penna. (Phila.)	Chem.							
Drexel Inst. Eve School (Phila)	Chem. Eng.							
Xavier University (Cincinnati)	Chem.							

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	Good	Fair	SPEAKING Exc.	Good	Fair	UNDERST'NG Exc.	Good	Fair

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

Approximate number of words per minute in typing _____ shorthand _____

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

18. CONTINUED

Dates of employment: (Month, year) From:	To:	Exact title of your position:	Salary or earnings: Starting $ per / Final $ per
April, 1944	Jan., 1946	Supervisor of Technical Cont.	

Place of employment (city and State): Philadelphia, Penna.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division: Pennsylvania Sugar Co. (Alcohol Division).

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.): Manuf. of Alcohol and By-Products

Number and kind of employees supervised by you: 2 Routine chemists, 1 Lab. Assistant, 1 Plant Operator

Name and title of immediate supervisor: Mr. Nemesio Alvare

Reason for leaving: Closing down of the Alcohol Plant

Description of your work:

Dates of employment: (Month, year) From:	To:	Exact title of your position:	Salary or earnings: Starting $ per / Final $ per
Jan., 1941	March, 1944		

Place of employment (city and State): Philadelphia, Penna.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division: Pennsylvania Sugar Co. (Alcohol Division), 1037 N. Del. Ave.

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.): Manuf. of Alcohol and By-Products

Number and kind of employees supervised by you: None

Name and title of immediate supervisor: Dr. Gustave T. Reich (Research director)

Reason for leaving: Same firm as above; the nature of job changed

Description of your work:

Dates of employment: (Month, year) From:	To:	Exact title of your position:	Salary or earnings: Starting $ per / Final $ per

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for leaving:

Description of your work:

Dates of employment: (Month, year) From:	To:	Exact title of your position:	Salary or earnings: Starting $ per / Final $ per
April, 1933	Sept, 1938		

Place of employment (city and State): Philadelphia, Penna.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division: Pennsylvania Sugar Co. 1037 N. Delaware Ave.

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.): Sugar Refining

Number and kind of employees supervised by you: None

Name and title of immediate supervisor: Dr. Gustave T. Reich (Research director)

Reason for leaving: Leave of Absence to obtain a B.S. degree

Description of your work:

If more space is required, use a continuation sheet (Standard Form No. 58) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and application title. Attach to inside of this application.

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23. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

24. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
25. Are you a citizen of the United States?		
26. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
27. Within the past 12 months, have you habitually used intoxicating beverages to excess?		
28. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
29. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
30. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service; amount of retirement pay, and under what retirement act and rating if retired from military or naval service.		
31. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
32. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name, (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
33. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		
34. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
36. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis with full military pay and allowances?		

(d)

Date of entry or entries into service:	Date of separation or separations:
Branch of service (Army, Navy, M. C., C. G., etc.)	Serial No. (If none, give grade or rating at time of separation.)

IF YOUR ANSWERS TO THIS QUESTION (No. 36) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
37. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 37 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 36 above has been verified by comparison with the discharge certificate on _____ 19____

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date _____

Signature of applicant _____
(Sign your name in INK (one given name, initial or initials, and surname). If female, prefix Miss or Mrs. and if married use your own given name as "Mrs. Mary L. Doe.")

Standard Form 57—June 1946
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R045.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.

1. Name of examination, or kind of position applied for:
Chemist, P6

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:
Philadelphia Quartermaster Depot

ANNOUNCEMENT

4. Mr. Mrs. Miss (First name) (Middle) (Maiden, if any) (Last)
Harry Gold

5. Street and number or R. D. number:
6323 Kindred Street

City or post office (including postal zone), and State:
Philadelphia 24, Penna.

6. Legal or voting residence (State): Pennsylvania

7. Office phone No.: Me 9-6993 New York City

Home phone: Pilgrim 5-8492

8. Place of birth (city and State; if born outside U. S., name city and country):
Bern, Switzerland

9. Date of birth (month, day, year): Dec. 12, 1910.

10. Age last birthday: 36

11. ☒ Male ☐ Female

SELECTION No.

12. ☐ Married ☒ Single

13. Height without shoes: 5 feet 8 inches Weight: 140 pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☒ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appor. ☐ Non-appor.	Material ☐ Submitted. ☐ Returned	Entered register:
Notations:	App. Review: Approved:	

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (tent.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disal.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answer by placing X in proper column	YES	NO
16. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		X
3 to 6 months?		X
6 to 12 months?		X
(b) Would you accept appointment, if offered— in Washington, D. C.?	X	
anywhere in the United States?		X
outside the United States?		X

16. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:
Anywhere in the Eastern United States.

(d) What is the lowest entrance salary you will accept: $4902.00 per year.
You will not be considered for positions paying less.

(e) If you are willing to travel, specify: ☐ Occasionally ☒ Frequently ☐ Constantly

16. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).
(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.
(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year)
From: May, 1946 To present time

Exact title of your present position:
Chief Chemist

Salary or earnings:
Starting, $5200 per year
Present, $5200 per year

Place of employment (city and State):
New York, N.Y.

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:
A. Brethman and Associates
29-28 41st Ave., Long Island City

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):
Chemical

Number and kind of employees supervised by you:
3 Chemists
1 Lab. Assistant

Name and title of immediate supervisor:
Mr. A. Brethman, Chief Engineer

Reason for desiring to change employment:

Description of your work:

(CONTINUED ON NEXT PAGE)

16-18-47280-2

38. CONTINUED

Dates of employment: (Month, year) From: April, 1944 To: Feb., 1946	Exact title of your position:
Place of employment (city and State): Philadelphia, Penna.	Salary or earnings: Starting $ per / Final $ per
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division: Pennsylvania Sugar Co. (Alcohol Division)	Description of your work:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position:
Place of employment (city and State):	Salary or earnings: Starting $ per / Final $ per
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position:
Place of employment (city and State):	Salary or earnings: Starting $ per / Final $ per
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

Dates of employment: (Month, year) From: To:	Exact title of your position:
Place of employment (city and State):	Salary or earnings: Starting $ per / Final $ per
Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:	Description of your work:
Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):	
Number and kind of employees supervised by you:	
Name and title of immediate supervisor:	
Reason for leaving:	

If more space is required, use a continuation sheet (Standard Form No. 58) or a sheet of paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

17. MILITARY EXPERIENCE.—In order to make the most effective placements of war veterans, detailed information is needed about the training and experience they have acquired in the Armed Services. Fill in the appropriate space for each service school you have attended. If you attended no special or technical schools while in the service, write in Item (a) "No attendance at service schools" and indicate in Item (a) all important changes in duty assignment, showing dates of such assignment.

(a) First Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in First Special Service School?

(c) Duty assignment or rating after this training (give all important changes in duty assignment whether or not you attended a Service School):

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

(a) Second Special Service School attended:

Location:

Dates attended (months, years):

From: To:

Rating received at end of this training:

(b) What were you taught in Second Special Service School?

(c) Duty assignment after this training:

Dates of duty assignment (months, years):

From: To:

(d) What did you do during this duty assignment?

List on a separate sheet of paper any additional experience, training, service, or special duty assignments during military service or hospitalization.

18. EDUCATION.—Circle highest grade completed:
1 2 3 4 5 6 7 8 9 10 11 12

Mark (x) the appropriate box to indicate satisfactory completion of:

☐ Elementary School ☐ Junior High School ☐ Senior High School

(a) Give name and location of last high school attended:

(b) Subjects studied in high school which apply to position desired:

(c) Name and Location of College or University	Major	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night	Degrees Conferred Title	Degrees Conferred Date	Semester Hours Credit

(d) List Your Chief Undergraduate College Subjects	Semester Hours	List Your Chief Graduate College Subjects	Semester Hours

(e) Other training, such as vocational, business, study courses given through the Armed Forces Institute (show name and location of school), or "in-service training" in a Federal agency:

Subjects Studied	Dates Attended From—	Dates Attended To—	Years Completed Day	Years Completed Night

19. Indicate your knowledge of foreign languages:

	READING Exc.	Good	Fair	SPEAKING Exc.	Good	Fair	UNDERST'NG Exc.	Good	Fair

(a) How was your knowledge of foreign languages acquired?

(b) If you have traveled or resided in any foreign countries, indicate (1) names of countries, (2) dates and length of time spent there and (3) reason or purpose (e. g., business, education, recreation):

20. List any special skills you possess and machines and equipment you can use, such as operation of short-wave radio, multilith, comptometer, key-punch, turret lathe, scientific or professional devices:

21. Are you now or have you ever been a licensed or certified member of any trade or profession (such as pilot, electrician, radio operator, teacher, lawyer, CPA, etc.)

☐ Yes ☐ No Give kind of license and State:

First license or certificate (year):

Latest license or certificate (year):

22. Give any special qualifications not covered elsewhere in your application such as:
(a) your more important publications (do NOT submit copies unless requested)
(b) your patents or inventions
(c) public speaking and public relations experience
(d) membership in professional or scientific societies, etc.

Standard Form 57—December 1949
U. S. CIVIL SERVICE COMMISSION

APPLICATION FOR FEDERAL EMPLOYMENT

Form approved.
Budget Bureau No. 50-R045.

INSTRUCTIONS.—Answer every question below clearly and completely. Typewrite or print in INK. If you are applying for a specific United States Civil Service examination, read the examination announcement carefully and follow all directions. Mail this application to the office named in the announcement. Be sure to mail to the same office any other forms required by the announcement. Notify the office with which you file this application of any change in your address.

APPLICATION No.
ANNOUNCEMENT
SELECTION No.

1. Name of examination, or kind of position applied for: Chemist, P 3

2. Optional subject (if mentioned in examination announcement):

3. Place of employment applied for:

4. Mr. Mrs. Miss (First name) Harry (Middle) (Maiden, if any) (Last) Gold

5. Street and number or R. D. number:

City or post office (including postal zone), and State:

6. Legal or voting residence (State): 7. Office phone No.: Home phone:

8. Place of birth (city and State; if born outside U. S., name city and country):

9. Date of birth (month, day, year): 10. Age last birthday: 11. ☐ Male ☐ Female

12. ☐ Married ☐ Single 13. Height without shoes: ____ feet ____ inches Weight: ____ pounds

14. Have you ever been employed by the Federal Government? ☐ Yes ☐ No

If now employed by the Federal Government, give present grade and date of last change in grade:

DO NOT WRITE IN THIS BLOCK
For Use of Civil Service Commission Only

☐ Appov. ☐ Non-appov.	Material ☐ Submitted ☐ Returned	Entered register:
Notations:	App. Review: Approved:	

OPTION	GRADE	EARNED RATING	PREFERENCE	AUGM. RATING
			☐ 5 points (test.)	
			☐ 10 points	
			☐ Wife or Widow	
			☐ Disab.	
			☐ Being investigated	
INITIALS AND DATE				

Indicate "Yes" or "No" answers by placing X in proper column	YES	NO
16. (a) Would you accept short-term appointment, if offered, for— 1 to 3 months?		
3 to 6 months?		
6 to 12 months?		
(b) Would you accept appointment, if offered—		
in Washington, D. C.?		
anywhere in the United States?		
outside the United States?		

16. (c) If you will accept appointment in certain locations ONLY, give acceptable locations:

(d) What is the lowest entrance salary you will accept: $_____ per year.

You will not be considered for positions paying less.

(e) If you are willing to travel, specify: ☐ Occasionally ☐ Frequently ☐ Constantly

18. EXPERIENCE.—You are requested to furnish all information asked for below in sufficient detail to enable the Civil Service Commission and the appointing officers of agencies to determine your qualifications for the position for which you are applying. In the spaces provided below describe EVERY position you have held. Use a separate block for EACH position. You may also include any pertinent religious, civic, welfare or organizational activity which you have performed, either with or without compensation, showing the number of hours per week and weeks per year in which you were engaged in such activity. Start with your PRESENT position and work back, accounting for all periods of unemployment. Explain clearly the principal tasks which you performed in each position. Describe your experience in the Armed Services in question 17 (Military Experience).

(a) If you were ever employed in any position under a name different from that shown in Item 4 of this application, give under "Description of your work" for each position, the name used.

(b) If you have never been employed or are now unemployed, indicate that fact in the space provided below for "Present Position."

PRESENT POSITION

Dates of employment: (Month, year) From: To present time

Exact title of your present position:

Salary or earnings: Starting, $ per Present, $ per

Place of employment (city and State):

Name and address of employer (firm, organization, or person). If Federal, name department, bureau or establishment, and division:

Description of your work:

Kind of business or organization (e. g., wholesale silk, insurance agency, mfg. of locks, etc.):

Number and kind of employees supervised by you:

Name and title of immediate supervisor:

Reason for desiring to change employment:

(CONTINUED ON NEXT PAGE)

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33. REFERENCES.—List three persons living in the United States or Territories of the United States who are NOT related to you and who have definite knowledge of your qualifications and fitness for the position for which you are applying. Do not repeat names of supervisors listed under Item 16 (EXPERIENCE).

FULL NAME	BUSINESS OR HOME ADDRESS (Give complete address, including street and number)	BUSINESS OR OCCUPATION
1.		
2.		
3.		

34. May inquiry be made of your present employer regarding your character, qualifications, etc.? ☐ Yes ☐ No

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
35. Are you a citizen of the United States?		
36. Do you advocate or have you ever advocated, or are you now or have you ever been a member of any organization that advocates the overthrow of the Government of the United States by force or violence? If your answer is "Yes," give complete details in Item 38.		
37. Within the past 12 months, have you habitually used intoxicating beverages to excess.		
38. Since your 16th birthday, have you ever been convicted, or fined, or imprisoned, or placed on probation, or have you ever been ordered to deposit bail, for the violation of any law, police regulation or ordinance (excluding minor traffic violations for which a fine of $25 or less was imposed)? If your answer is "Yes," list all such cases under Item 38 below. Give in each case (1) the date; (2) the nature of the offense or violation; (3) the name and location of the court; (4) the penalty imposed, if any, or other disposition of the case. If appointed your fingerprints will be taken.		
39. Have you ever been discharged or forced to resign for misconduct or unsatisfactory service from any position? If your answer is "Yes," give in Item 38 the name and address of employer, date, and reason in each case.		
40. Do you receive an annuity from the U. S. or D. C. Government under any retirement act or any pension or other compensation for military or naval service? If your answer is "Yes," give in Item 38 reason for retirement, that is, age, optional, disability, or by reason of voluntary or involuntary separation after 5 years' service, amount of retirement pay, and under what retirement act, and rating if retired from military or naval service.		
41. Are you an official or employee of any State, Territory, county, or municipality? If your answer is "Yes," give details in Item 38.		
42. Does the U. S. Government employ in a civilian capacity any relative of yours (by blood or marriage) with whom you live or have lived within the past 6 months? If your answer is "Yes," show in Item 38 for EACH such relative: (1) full name; (2) present address; (3) relationship; (4) department or agency by whom employed, and (5) kind of appointment.		
43. Have you ever had a nervous break-down? If your answer is "Yes," give complete details in Item 38.		
44. Have you ever had tuberculosis? If your answer is "Yes," give complete details in Item 38.		

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
45. Have you any physical defect or disability whatsoever? If your answer is "Yes," give complete details in Item 38.		
46. (a) Were you ever in the United States Military or Naval Service during time of War?		
(b) Is the word "honorable" or the word "satisfactory" used in your discharge or separation papers to show the type of your discharge or separation?		
(c) Was service performed on an active full-time basis, with full military pay and allowances?		
(d) Date of entry or entries into service: / Date of separation or separations:		
Branch of service (Army, Navy, M. C., C. G., etc.) / Grade (rank) or rating at time of separation: / Serial No.		

IF YOUR ANSWERS TO THIS QUESTION (No. 46) INDICATE THAT YOU ARE ENTITLED TO VETERAN PREFERENCE, SUCH PREFERENCE WILL BE CREDITED IN THE EXAMINATION. IF APPOINTED, YOU WILL BE REQUIRED TO FURNISH TO THE APPOINTING OFFICER, PRIOR TO ENTRY ON DUTY, OFFICIAL EVIDENCE OF SEPARATION FROM YOUR LATEST PERIOD OF ACTIVE SERVICE IN THE ARMED FORCES OF THE UNITED STATES DURING TIME OF WAR. DO NOT SUBMIT PROOF OF DISCHARGE OR SEPARATION WITH THIS APPLICATION.

Indicate "Yes" or "No" answer by placing X in proper column.	YES	NO
47. (a) If you served in the U. S. Military or Naval Service during peacetime ONLY, did you participate in a campaign or expedition and receive a campaign badge or service ribbon?		
(b) Are you a disabled veteran?		
(c) Are you the unmarried widow of a veteran?		
(d) Are you the wife of a veteran who has service-connected disability?		

IF YOUR ANSWER TO QUESTION 47 (a), (b), (c), OR (d) IS "YES," AND YOU WISH TO CLAIM VETERAN PREFERENCE, ATTACH TO THIS APPLICATION VETERAN PREFERENCE CLAIM (CIVIL SERVICE COMMISSION FORM 14) TOGETHER WITH THE NECESSARY PROOF SPECIFIED THEREIN.

THIS SPACE FOR USE OF APPOINTING OFFICE ONLY

The information contained in the answers to Question 38 above has been verified by comparison with the discharge certificate on ..... 19.....

Agency: Title:

38. Space for detailed answers to other questions (indicate item numbers to which answers apply).

ITEM No.		ITEM No.	

If more space is required, use paper the same size as this page. Write on each sheet your name, address, date of birth, and examination title. Attach to inside of this application.

FALSE STATEMENT ON THIS APPLICATION IS PUNISHABLE BY LAW (U. S. CODE, TITLE 18, SECTION 80).

I certify that the statements made by me in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Date: Signature of applicant: Sign your name in INK (one given name, initial or initials and surname). If female, prefix Mrs or Miss and if married use your own given name as "Mrs Mary L. Doe."

IV. SALARY AND WORKWEEK: Salary is based on the standard Federal workweek of 40 hours. Additional compensation is provided for any authorized overtime worked in excess of the 40-hour week. The salary range for each grade of these positions is given below. For employees whose services meet given standards of efficiency, the entrance salary is increased by the amount shown in the table, following the completion of each 18 months of service, until the maximum rate for the grade is reached.

Grade of Position	Basic Entrance Salary	Periodic Increases	Maximum Basic Salary
P-4	$4902.00	$250.80	$5905.20
P-5	$5905.20	$239.40	$6862.80
P-6	$7102.20	$239.40	$8059.80

Federal employees serving in positions which are in the classified civil service whose salaries have been increased above the basic entrance salary for these positions may be permitted to retain the benefits of their salary increases (but not beyond the maximum salary for the grade to which appointed), in accepting an appointment from this register, or in having a non-status appointment converted to an appointment with civil service status. All basic salaries are subject to a deduction of 5 per cent for retirement purposes.

V. DUTIES: The overall Quartermaster Program is concerned with the design, development, production and testing of military items in order that military performance requirements may be met. Chemists appointed to these positions will assume full technical responsibility for a complete research, development or technological project or projects or of one or more phases of the chemical problems related to the project. This may include, for example, one or more of the following:

1. Directing, coordinating, or conducting extensive fundamental research in one or more of the specialized fields of chemistry to determine basic principles underlying physical, chemical, and biological phenomena of Quartermaster interest.
2. Developing and improving functional finishes designed to enhance the durability and utility of textile items.
3. Directing, designing, and supervising the development and/or modification of chemical test procedures; preparing written reports presenting such information as is known to be up-to-date including description of test methods, evaluation of equipment used and suggestion of additional phases which appear worthy of investigation in arriving at ultimate objective.
4. Preparing specifications and/or production standards of a chemical nature for a variety of Quartermaster items.
5. Directing and supervising the carrying out of difficult analyses by chemical and physico-chemical methods of a large variety of products to determine their acceptability.
6. Initiating, designing, and directing a comprehensive chemical research project carried out in a number of research laboratories or universities leading to the solution of a problem of Quartermaster interest.

NOTE: Positions to be filled in other Federal agencies in the Third U. S. Civil Service Region involve comparable duties of a research and development nature.

Issued: 1-8-47

Announcement No. 3-3 (1947)
(Unassembled)
Forms: 57 & 5001-ABC

UNITED STATES CIVIL SERVICE COMMISSION

BOARD OF UNITED STATES CIVIL SERVICE EXAMINERS

PHILADELPHIA QUARTERMASTER DEPOT

2800 S. 20TH ST., PHILADELPHIA 45, PA.

Announces an open competitive examination for the position of

CHEMIST

P-4 $4902.00 A YEAR

P-5 $5905.20 A YEAR

P-6 $7102.20 A YEAR

For work in the following fields of chemistry:

Analytical Chemistry — Organic Chemistry
Biochemistry — Physical Chemistry
Advanced Inorganic Chemistry

THIS EXAMINATION IS ANNOUNCED UNDER THE CIVIL SERVICE RULES FOR PROBATIONAL (PERMANENT) APPOINTMENT AND IS OPEN TO THE GENERAL PUBLIC.

I. CLOSING DATE: Applications must be on file with the Executive Secretary, Board of U. S. Civil Service Examiners, Philadelphia Quartermaster Depot, 2800 S. 20th Street, Philadelphia 45, Pa., not later than the close of business on February 6, 1947.

II. PLACE OF EMPLOYMENT: The employment lists resulting from this examination will be used for filling positions in the Philadelphia Quartermaster Depot and in other Federal Agencies in Pennsylvania and Delaware having similar vacancies, unless it is found desirable in the interest of the service to fill any position by reinstatement, transfer, or promotion.

III. EMPLOYMENT LISTS: Separate employment lists will be established in the fields of Chemistry listed above on the basis of special courses of study successfully completed, special training, and experience in the field of Chemistry. These lists will be further subdivided for certification purposes according to the varying types of specific vacancies to be filled.

Restriction of certification for highly technical positions. For those positions involving highly complicated or fundamental scientific research or similar difficult scientific duties, certification may be restricted to those eligibles who show the successful completion of a full college education in Chemistry in a college or university of recognized standing.

Code: P-1312-0

The difficulty of the work performed, the responsibility assumed and the degree of supervision exercised will vary with the grade of the position, increasing progressively in the higher grades.

VI. REQUIREMENTS

Education and Experience

Applicants must have successfully completed one of the following:

1. A full 4-year course, in a college or university of recognized standing, leading to a bachelor's degree of chemistry. This study must have included courses in chemistry consisting of lectures, recitations and appropriate practical laboratory work totaling at least 30 semester hours; or

2. Courses in chemistry, in a college or university of recognized standing, consisting of lectures, recitations and appropriate practical laboratory work totaling at least 30 semester hours; plus additional appropriate experience or education which, when combined with the 30 semester hours in chemistry, will total 4 years of education and experience and give the applicant the substantial equivalent of a 4-year college course. The following are types of experience which will be accepted in combination with education to complete the 4-year requirement:

   Subprofessional and higher grade laboratory work, production or manufacturing involving technical duties, and similar types of work which provide a means of obtaining a working knowledge of the theory and application of the scientific principles of a physical or natural science or of engineering.

   Experience in patent examining, or in abstracting, editing, or translating reports of scientific literature.

   Research experience in such fields as physics, chemistry, engineering or biology, which included the analysis of data and the preparation of reports.

   Chemical work of a professional grade, such as that described in the typical duties of the positions to be filled from this examination.

In either 1 or 2 above, the courses must have included analytical chemistry, both quantitative and qualitative, and in addition, any two of the following: (a) Advanced Inorganic Chemistry; (b) Biochemistry; (c) Organic Chemistry; (d) Physical Chemistry. All of these courses must have been acceptable for credit toward the completion of a standard 4-year professional curriculum leading to a bachelor's degree in chemistry at a college or university of recognized standing.

Additional Experience

In addition to the above, applicants must show experience of a progressively higher level as follows:

For P-4 Grade - At least three years of responsible, progressive, professional experience in chemistry including two years of difficult and important research or scientific investigative work in a specialized branch of chemistry which has demonstrated the applicant's initiative, resourcefulness and ability to perform work, at the professional level, under only general supervision.

For P-5 Grade - At least four years of broad, progressive and responsible professional experience in chemistry, at least two years of which must have demonstrated either (a) ability to organize, direct and coordinate research or similar difficult work of an important character in a specialized branch of chemistry, or (b) marked capacity for original research in a specialized branch of chemistry.

For P-6 Grade - Applicants must have had four years of broad and progressive experience in chemistry. At least two years of this experience must have consisted of very important and responsible work in one of the specialized branches of chemistry and must have been on a level equivalent to or above that of the P-5 grade. The total experience must show a thorough and wide knowledge of the principles of chemistry and their application and either (a) ability of a high order in the organization, direction and coordination of important research or other activities in chemistry, or (b) productive research in chemistry demonstrating by inventions, new theory developed or extended, or through published scientific documents that the applicant is a person who has achieved widespread recognition in the scientific world.

Substitution of Graduate Study for Experience - Graduate study in chemistry successfully completed in a college or university of recognized standing may be substituted year for year for the professional experience prescribed for these positions up to a maximum of two years of experience. Applicants who have successfully completed study fully equivalent to the requirements for a Master's degree may substitute such study for one year of general experience. In order to substitute graduate study for two years of experience, applicants must have received the Ph. D. degree which may be substituted for the general experience prescribed for all grades. For the P-4 grade, the Ph. D. degree may be substituted for one year of the prescribed 2 years of experience in a specialized branch of chemistry. For the P-5 and P-6 grades, however, the Ph. D. degree may not be substituted for any part of the prescribed 2 years of experience in a specialized branch of chemistry.

Examples of Qualifying Experience - As a project director or group leader with full technical responsibility for the work of his subordinates, or as an individual worker or member of a group, plans and conducts theoretical or laboratory investigations in fundamental or applied chemistry such as the following:

1. Conducting investigations of the relationships between molecular structure, chemical composition, and physical properties of organic plastics and the determination of chemical, thermal, optical, permanence and mechanical properties of plastics.

2. Conducting research in connection with the isolation of biologically active compounds from plant and animal tissues, bacteria or fungi, and the study of chemical and physical changes induced in Textile items by micro-organisms.

3. Conducting research to determine the chemical and physical properties of metallic and/or non-metallic protective coatings and materials employed in such coatings and the development of new and improved methods of testing such materials.

4. Conducting research in the field of plastic filaments, films, and coated fabrics with the objective of developing new items of equipment and clothing or of improving existing items of equipment and clothing.

5. Conducting investigations in organic synthesis and structural determinations of organic compounds such as carbohydrates, protein, enzymes, heterocyclic nitrogen compounds, etc.

6. Developing new instruments or methods of chemical and physico-chemical macro or micro-analysis; the use of spectrophotometry, spectroscopy, X-ray diffraction, electron microscopy, potentiometry, or polarography.

7. Conducting research or development work on the application of textile finishes and protective coatings to textile fabrics and other materials.

8. Conducting studies on degradation and changes of natural and synthetic textile fibers, synthetics and other materials caused by weather, laundering, heat, perspiration, etc.

College Teaching - When accompanied by a reasonable amount of scientific research in chemistry college teaching with the rank of instructor or higher will be considered acceptable experience for any grade of chemist provided that all other requirements for the grade under consideration have been met.

Examples of Non-qualifying Experience - Experience consisting of routine laboratory testing, routine tabulating of data, acting as curator of a chemical stockroom, teaching of high school chemistry and experience of like character or importance.

NOTE: The Application Form 57 may not provide sufficient space for an adequate description of the employment, military and educational background called for in items 16, 17, and 18. This information should be given in detail on separate sheets which may be attached to the Application Form 57. Such data should be presented in organized outline form. Formal job titles and elaborate terminology describing positions

held will not necessarily be accepted as establishing the quality and value of the experience actually had. Each of the additional sheets submitted should be identified by the name of the applicant and the title of the examination at the top and the specific item or sub-item on Form 57 to which it refers. List on Form 57 all positions you have held but furnish the detailed information requested below only for those positions in which your experience is pertinent to the option for which you are applying. The following employment experience is desired for each pertinent position.

1. The length of time you held each position and dates of all changes in title, salary and duties.
2. For each position, indicate clearly the number and types of persons whose work you directly supervised.
3. Responsibility for planning and organizing the scientific work on an entire problem, project or scientific research program.
4. Outline the general nature of the theoretical knowledge, different skills, and special techniques which you apply in your work. Give an example of some of the technical difficulties encountered in completing an assignment.
5. Give instances where individual interpretation, adaptations and development of new or modified work methods, and design of apparatus have been necessary in your work.
6. State types of formal reports you were required to prepare relating to the progress of your work, to whom these reports were submitted and to what degree you were responsible for the successful completion of your particular project or program.
7. List your scientific or technical publications (do not submit copies unless requested).

Basis of Rating - No written examination is required. Applicants will be rated on the basis of their training and experience as described in their Application Forms 57, with such additional information as may be developed through confidential inquiry. The major basis for determining eligibility for any salary grade will be the quality of the experience offered by the applicant. Only experience or training acquired prior to the closing date for receipt of applications as specified in this announcement, will be considered for this examination.

Part-time or Unpaid Experience - Credit will be given for all valuable experience of the type required, regardless of whether the experience was gained in part-time or full time occupation. Part-time or unpaid experience will be credited on the basis of time actually spent in appropriate activities. Applicants wishing to receive credit for such experience must indicate clearly the nature of their duties and responsibilities in each position and the number of hours a week spent in such employment.

Physical Requirements

Although the duties of these positions are of a sedentary type and include physical activities which are connected with research work or more specialized fields of chemistry, there are certain physical requirements. Chemists must have sufficiently free use of elbows, hands and fingers to manipulate laboratory apparatus. They must have sufficiently good vision

No Fee is Charged - Appointments to Federal positions which are subject to the Civil Service Rules are made through the Civil Service Commission. It is not necessary to secure the services of a private employment agency in order to obtain Federal employment.

Sex - The Department or office requesting certification of eligibles has the legal right to specify the sex desired. For these positions both men and women are desired.

Fingerprinting - Fingerprints will be taken of all persons appointed from these examinations.

Veteran Preference - Preference benefits based upon honorable separation from the armed forces are given under certain conditions in competitive examination for original appointment.

1. Five points are added to the earned rating of the applicant who establishes claim to preference based on his or her own active service in the armed forces of the United States during any war or in any creditable campaign or expedition.
2. Ten points are added to the earned ratings of applicants who establish a claim to preference as: (a) a disabled veteran; (b) the wife of a disabled veteran who is disqualified for appointment because of his service-connected disability; or (c) the widow (who has not remarried) of a deceased ex-service man who served in the armed forces of the United States on active duty during any war or in any creditable campaign or expedition.

Veterans claiming 5-point preference based on wartime military service are not required to furnish proof of honorable separation until the time of appointment. All other preference applicants should file Form 14, together with the documentary proof specified therein, at the time of filing Application Form 57.

Inquiries - After filing your application, be sure to inform the Executive Secretary, Board of U. S. Civil Service Examiners, Philadelphia Quartermaster Depot, 2800 S. 20th Street, Philadelphia 45, Pa., of all changes in essential information, such as name, address or availability. In reporting such changes, include your full name, title of examination involved, rating received and date of birth. These changes will be promptly recorded without acknowledgement. Please DO NOT make inquiries concerning the status of pending applications, prospects of appointment and related questions, as the handling of such correspondence will delay the holding and rating of this and other examinations.

Assignment of Grade - Applicants for the higher grade who are found not qualified therefor will be considered for the lower grade if otherwise qualified and available for the lower grade.

Notice to War Service Employees - Federal employees who are in positions which would ordinarily be filled by certification from the registers to be established as a result of these examinations should apply for the appropriate examination if they do not have a classified status and wish to qualify for permanent appointment.

6-6-50

to read measured distances on scaled laboratory equipment and must be able to distinguish basic colors and shades.

Although most of these positions require that the applicant be able to hear ordinary conversation with or without a hearing aid, there may be a few positions which do not require this ability, and applications from the deaf will be accepted.

Any physical defect which would cause the applicant to be a hazard to himself or others, or which would prevent efficient performance of the duties of the position, will be disqualifying for appointment.

A physical examination will be made by a Federal medical officer before appointment. Persons who are offered appointment must pay their own expenses in reporting for duty. If, upon reporting at the place of assignment, they are found ineligible because of physical defects, they cannot be appointed and no part of their expenses in returning home can be paid by the Government.

Age - Applicants must have reached their 18th birthday but must not have passed their 62d birthday on the closing date for acceptance of applications. These age limits do not apply to persons entitled to veteran preference. Age limits will be waived for war service indefinite employees who, on the closing date of this examination, are serving in positions which would be filled from the eligible register resulting from this examination. War service indefinite employees for whom age limits are waived may be certified only for appointment to a position of the same or lower grade than that htld on the closing date. Non-preference eligibles for whom the age requirements have been waived will be removed from the register if they are separated from the Federal service. However, the eligibility of such persons may be restored upon reemployment in the competitive service under an indefinite appointment.

Citizenship - Applicants must be citizens of or owe allegiance to the United States, or must be citizens of the Republic of the Philippines.

Verification of Qualifications - Statements concering qualifications may be verified by the Commission. Applicants may be required to present to the Commission proof of qualifications claimed. Proof will be requested by the Commission if required. Exaggeration or misstatement will be cause for disqualification or later removal from office.

VII. GENERAL INFORMATION

Certification of eligibles to Appointing Officer - In filling vacancies in these positions, certification will be made of the highest eligibles on the appropriate register who have not expressed unwillingness to accept appointments at the place where the vacancy exists.

Appointments - Appointments for entry into the classified service will be made subject to investigation, will be probational unless otherwise limited, and will be made in the grades listed in this announcement and at the entrance salary of such grade. Such appointments become permanent upon satisfactory completion of a probationary period of one year.

6557430.7

Ex 12 B

SAC, Philadelphia

7/10/50

SA T. SCOTT MILLER, JR.

HARRY GOLD, was.
ESPIONAGE - R

EXHIBIT 65-4307-1B-13 (1) (Exhibit 12B)

On 6/22/50, GOLD was shown the above folder containing numerous handwritten notes, laboratory reports, and the like, at which time GOLD stated that after examining all of the material, it consisted merely of laboratory reports, notes, work papers and conference notes relative to various processes being worked on and experiments done in the BROTHMAN laboratory.

TSM:HKF
65-4307

(7) 1-24-47

Cont #3

add some H.Sty to Cond. A at 80 till we had added not for 45 then up in 5 minutes to 150°C & drop back to 130.

neither maybe have H.Sty or not & add cond. B. to oil [illegible]

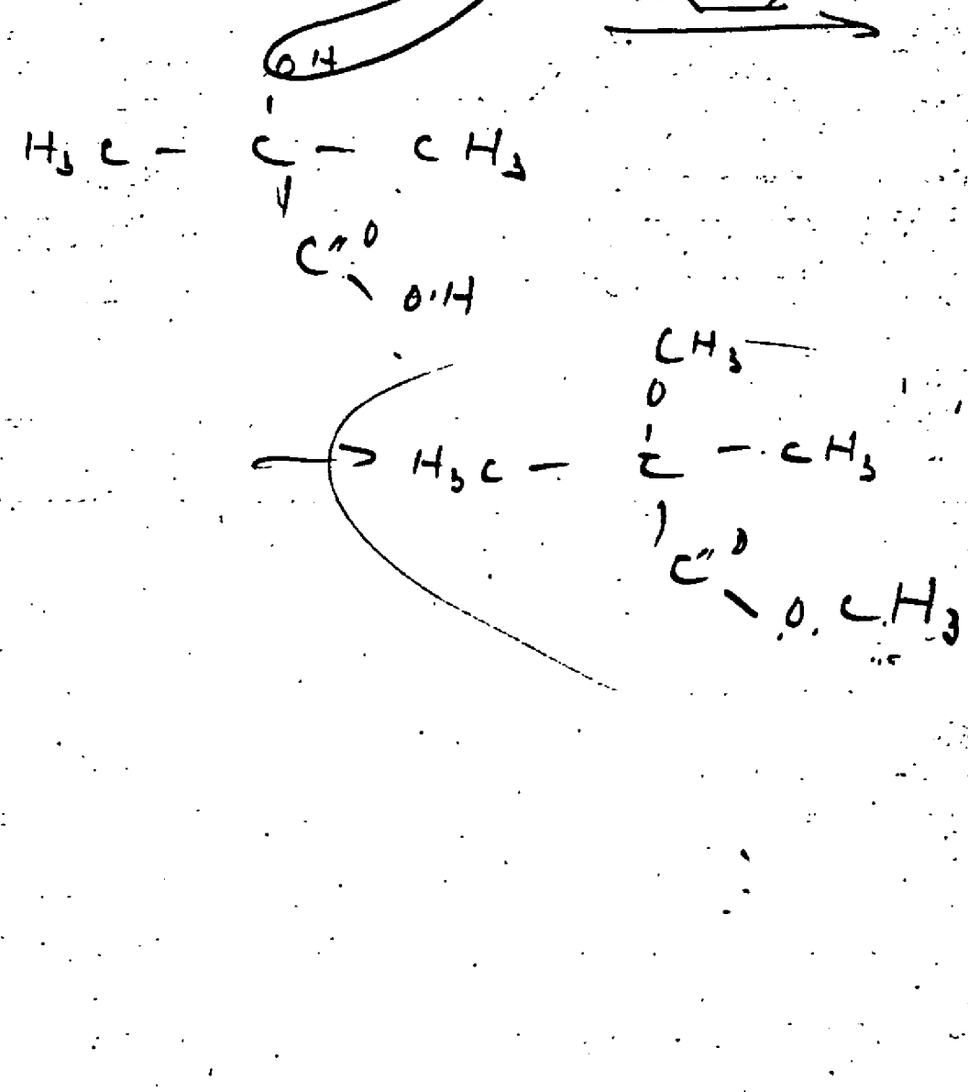
& add MeOH & H_2O in water used by Bill.

use to follow azeotrope

use HOH — no doubt.

Summary of Cons

1. no test was product oil
2. so Hendricks is possible,
3. Cont. #3


CH3 OH
OH
H3C
CO2H
H3C
C
CH3
C
O
OH
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C
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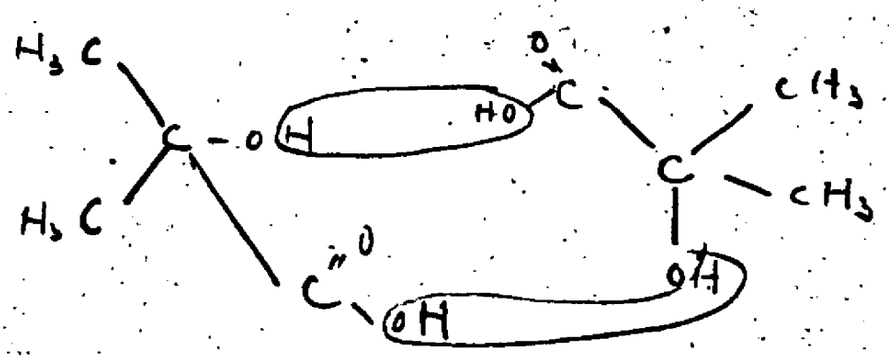
O CH3

C O



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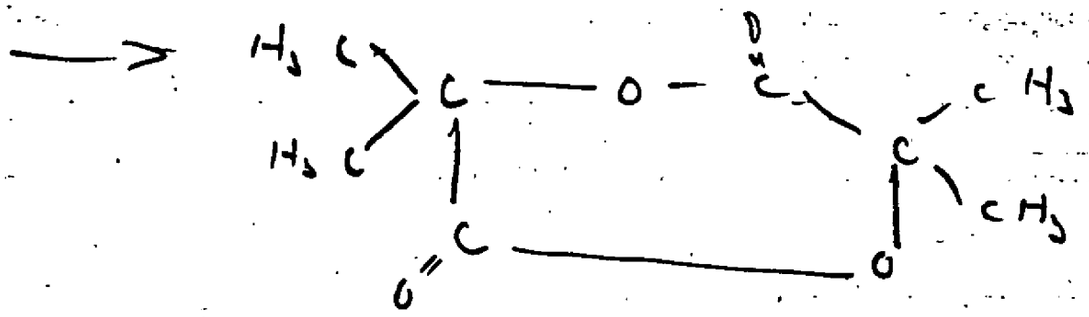
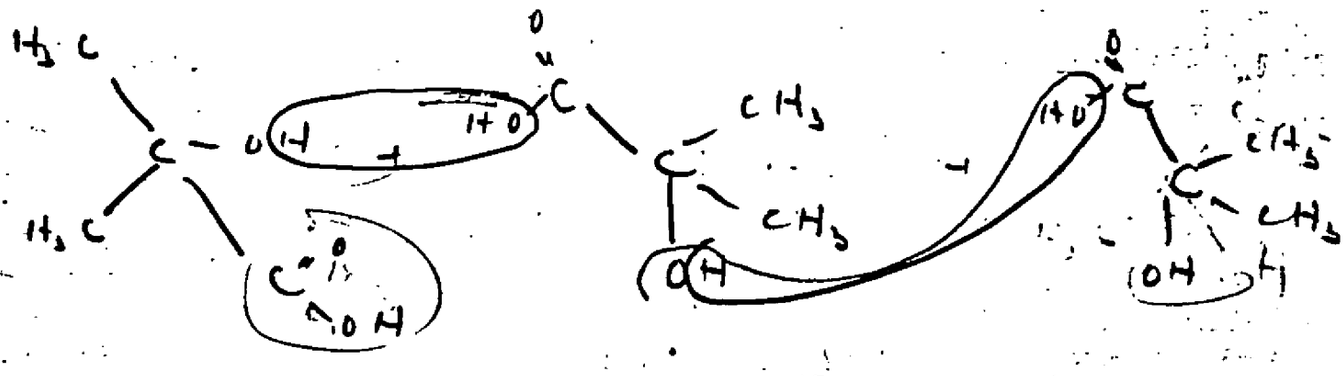
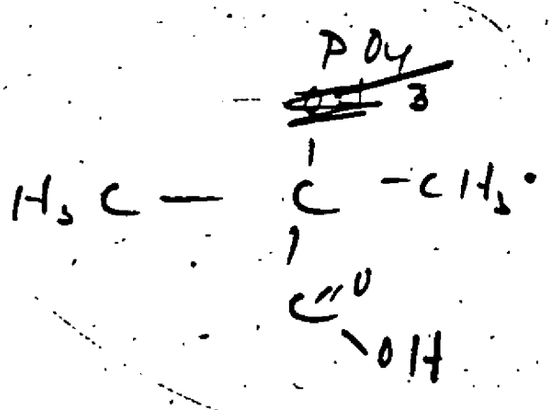
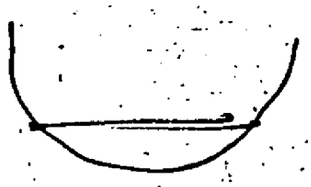


Lactide 113 °C

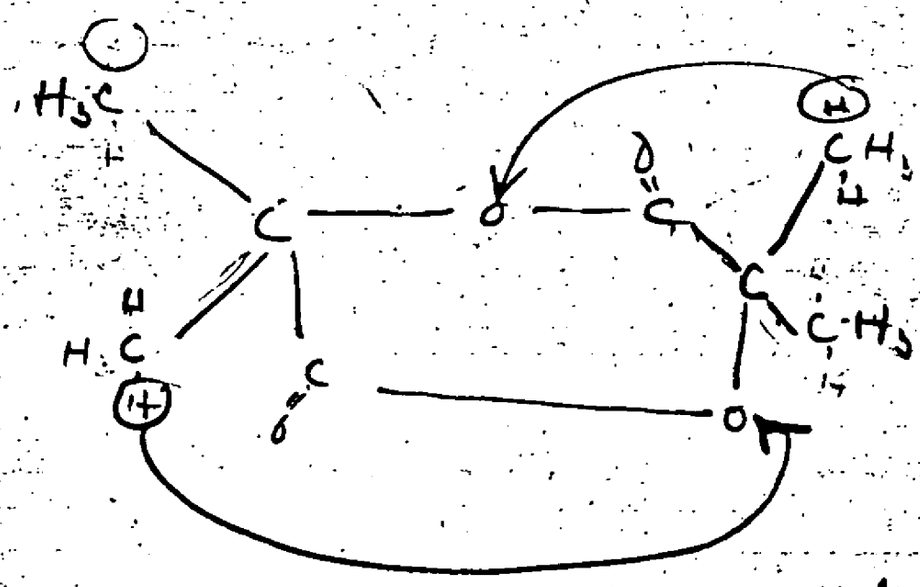
62







H_3PO_4



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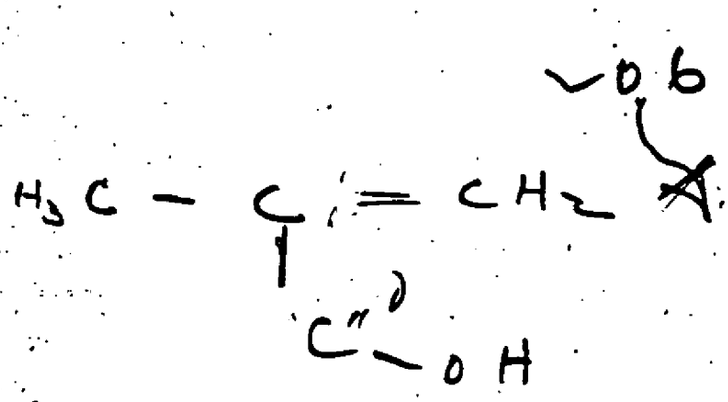

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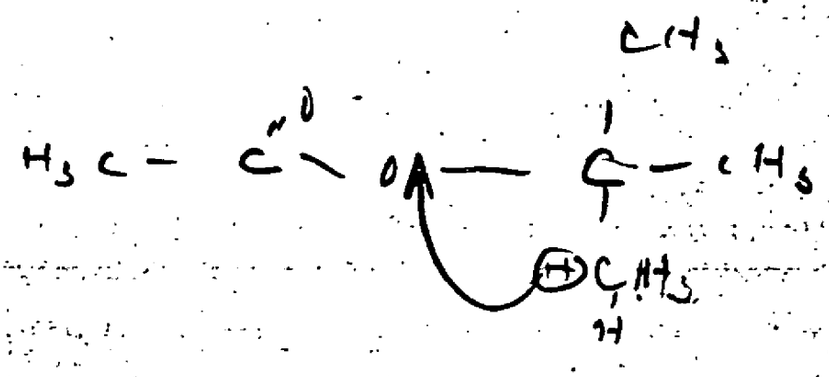
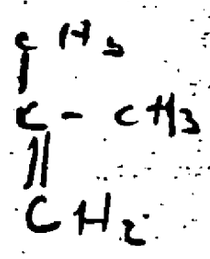
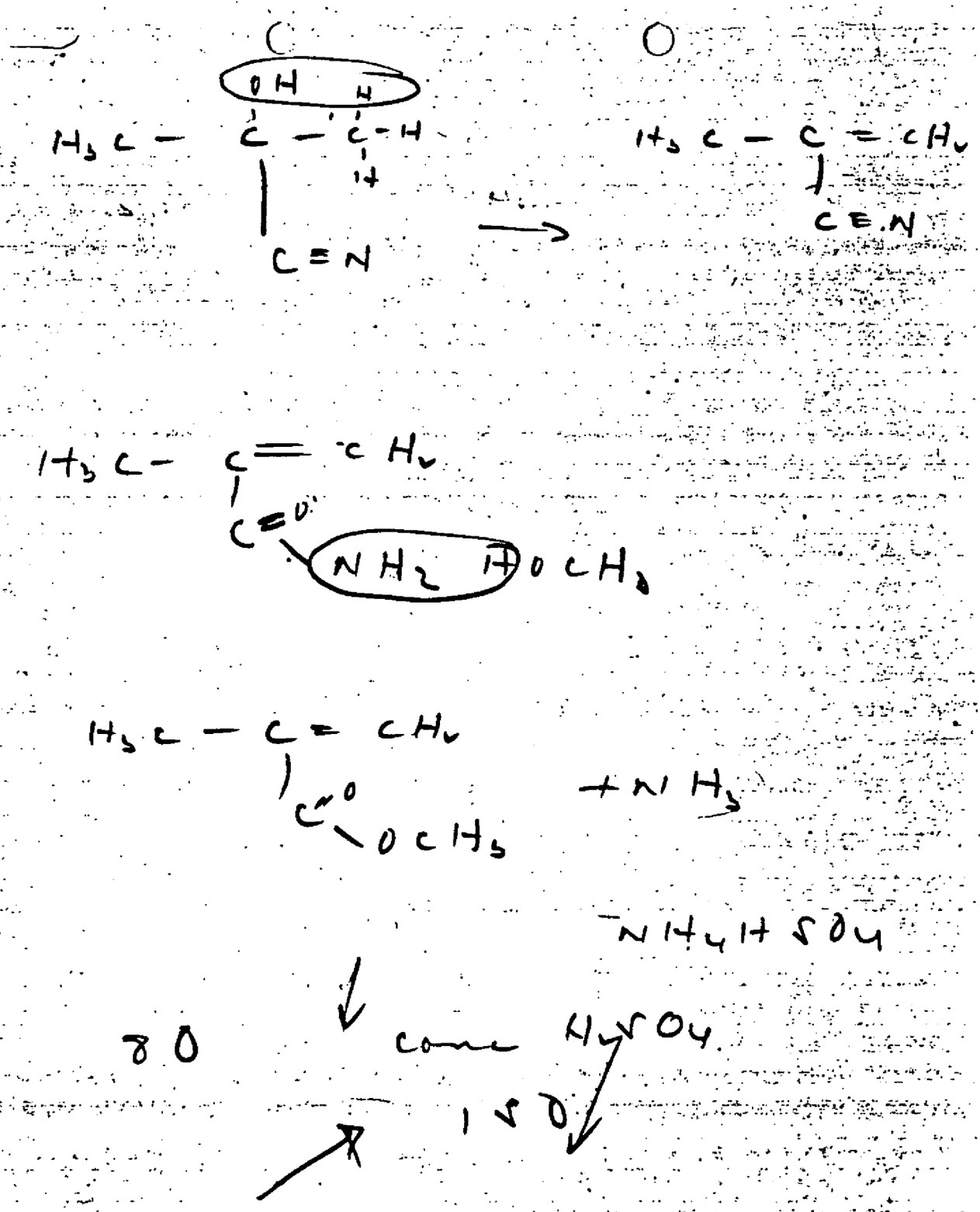


anticlinal




OH
H
C≡N
C≡N
NH2
OCH3
NH4HSO4
80
conc H2SO4
150

Conference on Lab. Work (1) 8-24-47

Lecture

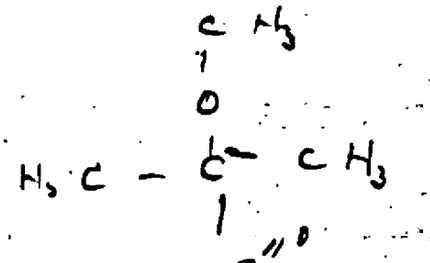
1. Carboxylic acid polycondensation - inverted ester formation
2. $NaOH$ does not give all $RCOOR$ are made
3. Polyester does not go Decomp.
4. Do not form Ether Cond. — α, α', need are decomp. entirely to Methacrylic acid

1) $H_3C - \overset{O}{\overset{\|}{C}} - O - \underset{|}{C} -$ → bromotriene & $RCOH$

We are doing equiv. of making methacrylic acid

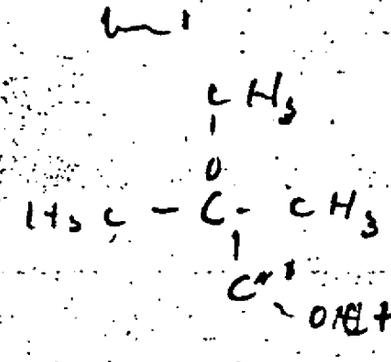
Mat

(i) $\xrightarrow[NaSO_4]{RCOH}$ $RCOH$ + tert butyl methyl ether



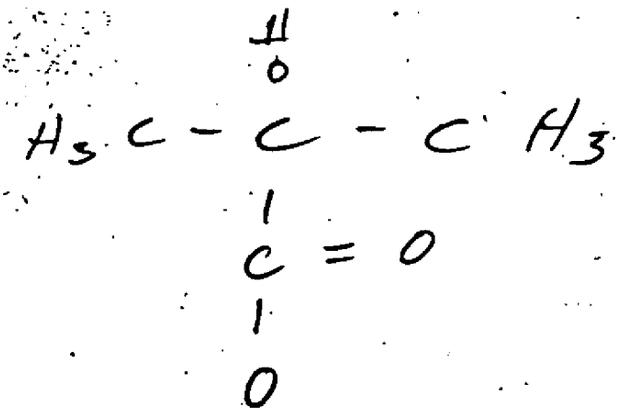
bad - very stable

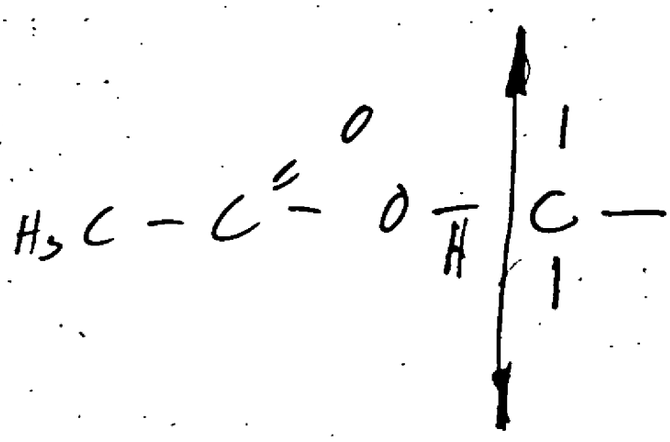
Mat



Can be treated with H_2SO_4

C O





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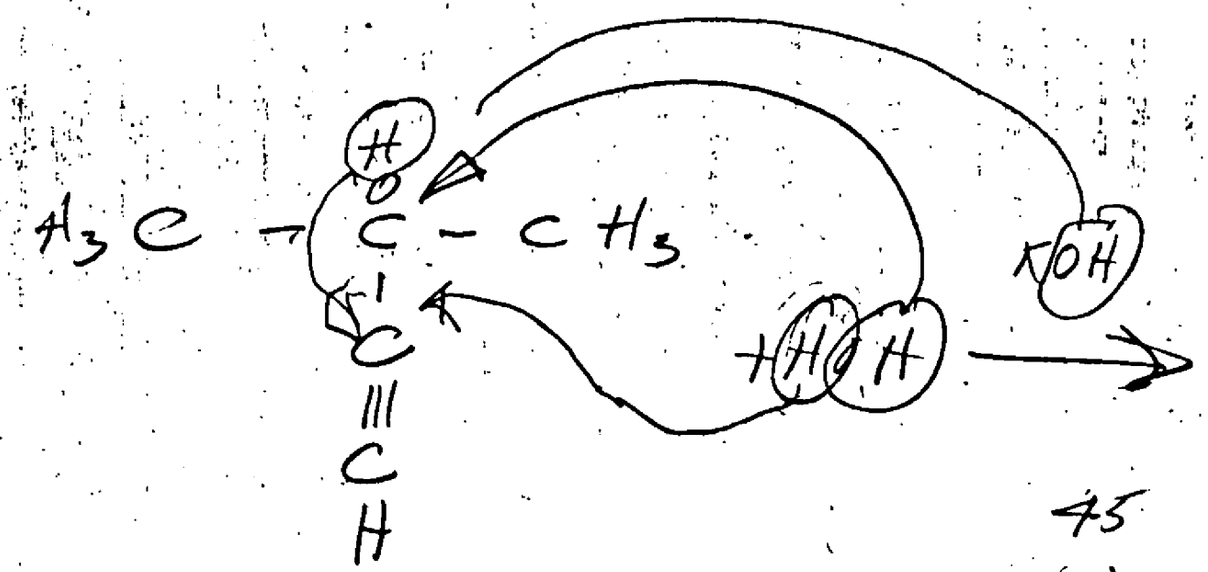

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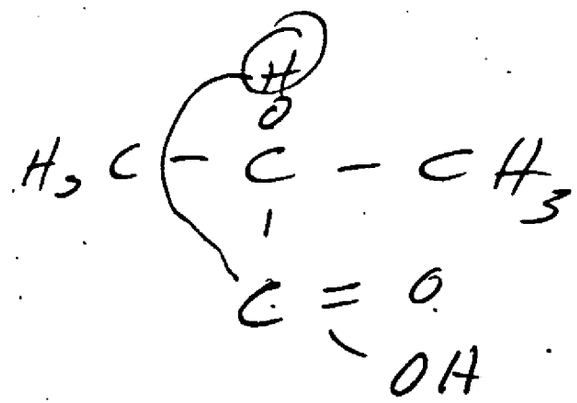
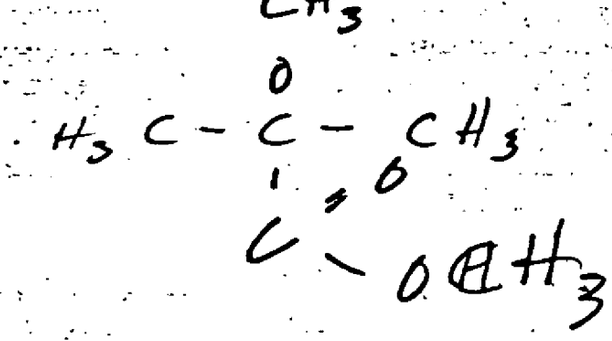
65

5



5.14.47

$HHSO_4$



Yields

1. Incomplete conv. of cond. prod. to Meth. acid
2. Formation of anhydride of Meth acid (with P_2O_5)
3. Could be dehydration of epoxide to ether
4. Entitle (incompletely conv.) coming under

1. Warm oil with HOH & { Detox. mg
Pass to Polymer.

need column: in Entire

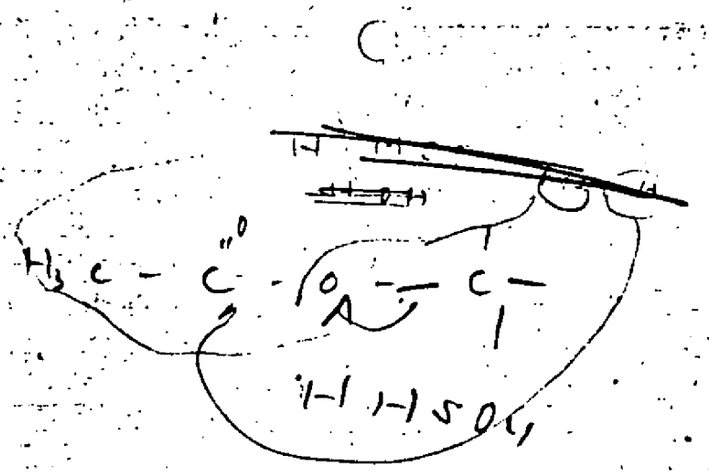
Packed column – in Foil, turnings

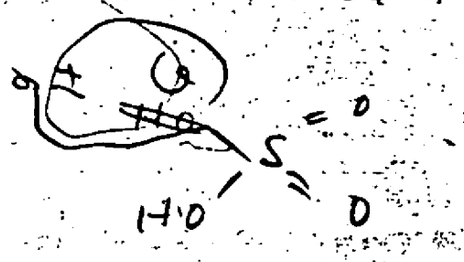
Use

1. Cumene manufacture to
2. acid catalysis.

Co/Hand Soxhlet

[illegible] method





[illegible] acid [illegible]

[illegible] butyl acetate → AcOH + butylene

[illegible]

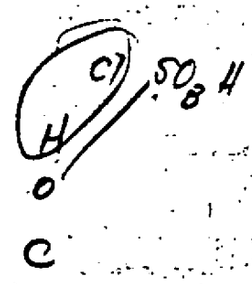
→ AcOH + H_2SO_4 adds [illegible]

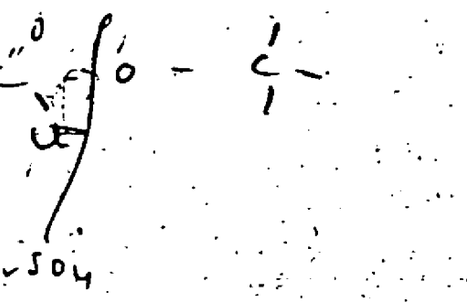
→ H_2SO_4 + butylene

Esterification

1. H_2SO_4 [illegible] could also have made methanoic acid

[illegible] CH_3CO_3H





Try H_2SO_4

(. ⊗) 5-24-47

Cupto

1. "X" material — attempt to identify

Expt 1a
a- add catalyst + polymerize
b- try K.M-14 again

(not balance on cond product)
(also take over all possible H14 — 1 cc / 1 cc.)

2. Completion of Cyclizing of Cond Product.
a- Do not require acid catalyst

Expt. 1
(1) Let run 1 expt 8-10 days at 60°C ±
(as high as can go).
If all substantial conditions to Mand, b.p. of system should immediately lower — use inhibitor — use $AlCl_3$ in addn to ⊕
⟹ make continuous obs. for progressive lowering of b.p.

3. Acid Catalyst.
a- H_3PO_4 Condens
10 g PrOP + MeOH, 130° C, reflux 1/20 vbs.
10 g PrOP
→ [illegible]

b- Fumed State (ie 105 H) may be present in crystals
Cond prod. formation

Cond at poly cond C''O ~ NH ~ + α-pH (adiac)

(6) 8-4-47

two charts (previous)

1- 2 moles CH_3OH refluxing ~9.

2. CH_3OH + CH_3 180°C pass in $MeOH$

→ $MeMe$ (→ bad)

---

methylamide process

2000# (20 moles H_2SO_4)

1000# (10 moles amide)

↓ 10 moles → NH_4HSO_4

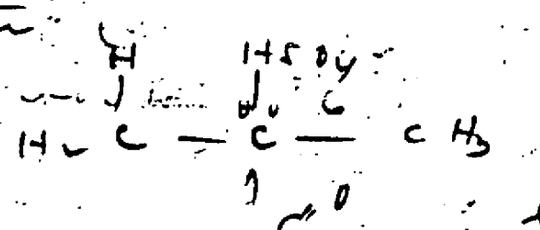
80°C → ~ $MeMe$

---

to need minimum final acid conc.

should be more for mol. → HSO_4 add product.

Later:



less stable than simple acid derivative (?)

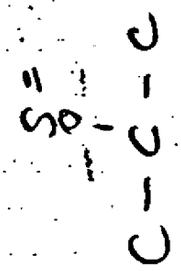
---

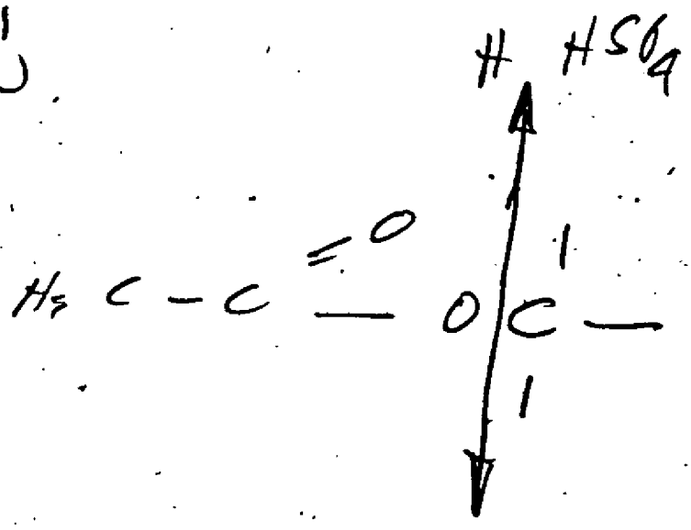
ab a

v-4-47

CH_3HSO_4

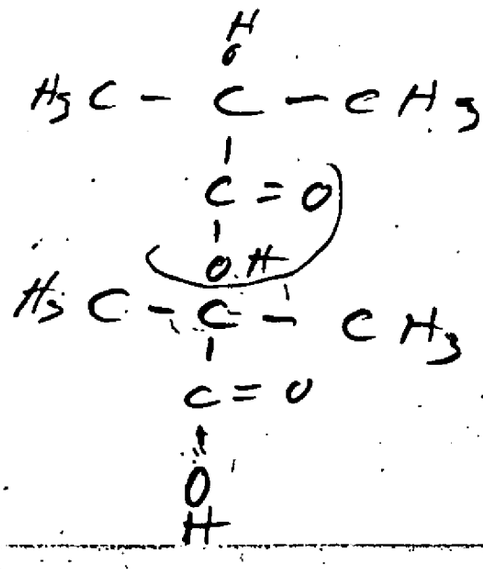
$(CH_3)_2SO_4$





$$HHSO_4 \longrightarrow H^+ + HSO_4^-$$

$$HSO_4^- \longrightarrow H^+ + SO_4^=$$



Flask

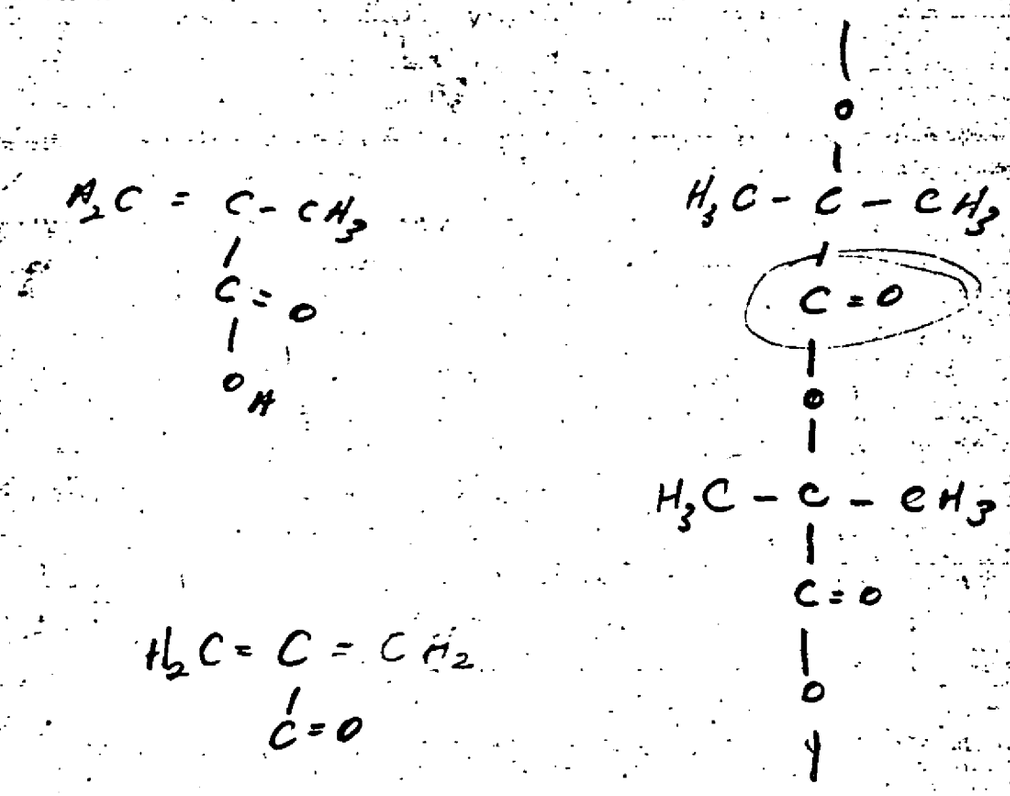
24 v.
60 7
30 v. 7

83.5 g m

3-7.0

$$\frac{97}{104} \times \frac{60}{\cancel{1.75}} = \frac{57 \text{ gms}}{1.75} = 33 \text{ cc}$$

$$\frac{12}{104} \times 60 = 55.5 \text{ gms}$$



630

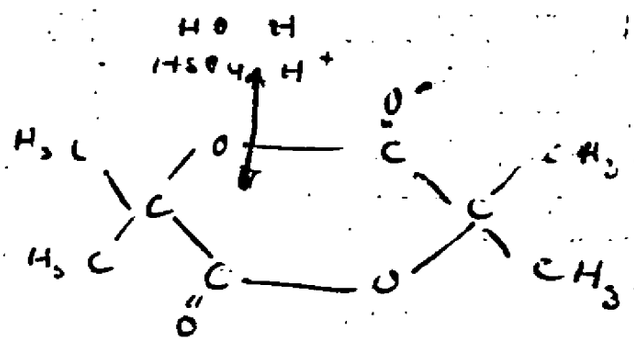
930

1. P_2O_5 → 70-75%
all hypotheses worthless

2. all MeCO in late fractions

3. This much clear
a. In presence of CH_3Cl lactide as formed in d
b. $ClSO_3H$ → pure lactide
c. Every time used MeOH - HOH → no yield worthwhile

4.



Reversal Tendency

5-18-46

See α-OH

1. no chance acetone formation can account for loss in yield.

2. Incompleteness of reaction

∴ tried to drastically reduce t° & time to → rapid reaction at low t° & avoid decomp.

a. yields uniformly bad 40% or less

3 ~~Ex~~ stirred of CH$_2$Cl$_2$ & used less MeOH to get higher temp → somewhat increased yield

4. Incomplete removal of water

due distillate & all of yield residue boiling over non-MeOH range

P_2O_5 → H_3PO_4 & lactide or polymers

Then

$\frac{1}{3}$ P_2O_5 → trace MeOH.

$\frac{2}{3}$ P_2O_5 + reflux at 150 (bath) → considerable MeOH

3 cut'd
the more 150 and ~~Ex~~ 10 gr. P_2O_5
Got better yield

acid decomp → MeCl + CO
→ acid polymers.

(2) 5-18-47

Further on acid (polymer

that that 1st forms HC=C acid & then esterify

& carry order.

So passed NaOH thru at high t° (increasing t°

→ HC=C acid) { to drive HC=C form
to drive esterif

& got better yields

Did same with B_2O_3 NaOH

yield not as good as ~~for~~ passing thru

I. Summary

1. primarily losses due to poor esterif. with NaOH
2. incomplete rxn of α-OH acid or ester
3. Fail from HC=C acid & then esterify

Ref.

1. may be forming polylactide
2. may be forming HC=C acid
3. test distillate for { MeOH CO acetone

1. Bazaber out - prev formation of HC=C acid
   no g. at 180
2. Have not good in α-OH decomp
   At at 180° conv. v little then

60 cc x 1.5 = 90

95

8

193

— 392

~~23.2~~
~~61~~
~~114.2~~

5-12-47

Second Cut –

	Still Pot	Vapor	Variac	
10:15	70°C	54.5°C	42	
35	76	55	45	
45	82	55	46	Foaming in Still pot.
55	95	55 1/2	46	
11:03	105	53	46	Foaming stopped
10	115	56 1/2	46	Dist. slow
15	117	60	48	
20	119	62	48	
25	120	64	48	
42	128	65	53	
48	130	70.	54	

Wt. of 2nd Cut 106.1 g

1200	127	71	58	
08	126	64	60	Fumes not Condensed.
15	stirred solid mass			
17	137	57		

Cut 22.3 g

				Pressure
1:40	Vacuum	–	52	
45	95	39	"	260 mm
50	118		"	"
55	131	40	42	"
2:10	150	less than 40	30	"
~~14~~	154		40	170
25	164		30	60
2:40				40

102 g

q- cellulose ton

Eldorado 5-8903

Brown Co.
500 5th Ave.
Penn 6-2260

Pure 160-240 ton
not bleached $100
Solka-floc
$80
100

~~Lex 1-5050~~

CH_3-COOH → $CH_2=COOH$ CH_3

4-12 36
3-16 48
92
8
100

4-12 48
8
32
88
12
100

11.150

2nd 130°C still pot
61 g anhydrous $MgSO_4$

3rd Cut Cut 130-60°C +

Change vacuum when ~~[illegible]~~

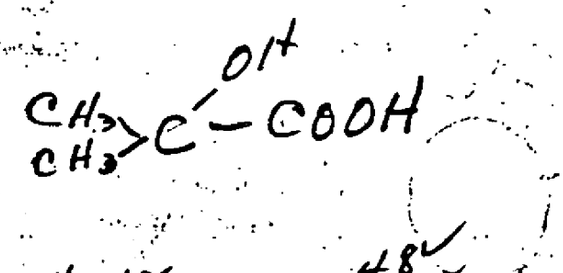
E.A.
Values

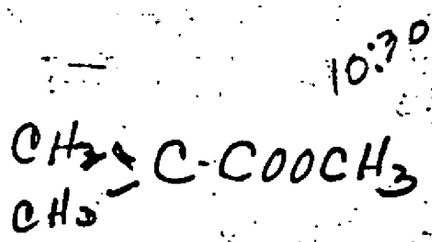
✓ Dispersion tubes SS coarsestos

1" D

4 copies Chem Eng. McGraw Hill April issue

Prod 1st DDT or 2nd





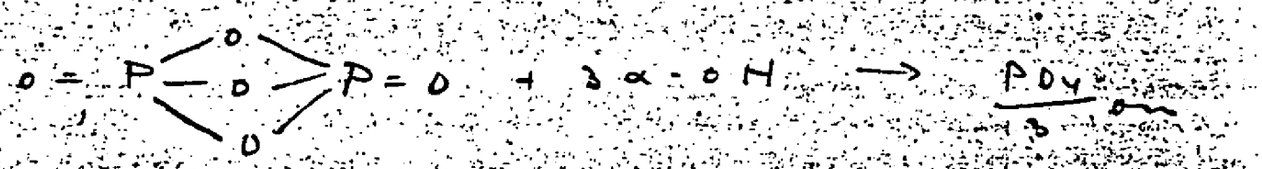
4-1✓ 48✓ 8 48✓ / 104 ✓ 45 × 100/104

16/46 16/28

60 6

① 5-27-47

previous Thesis



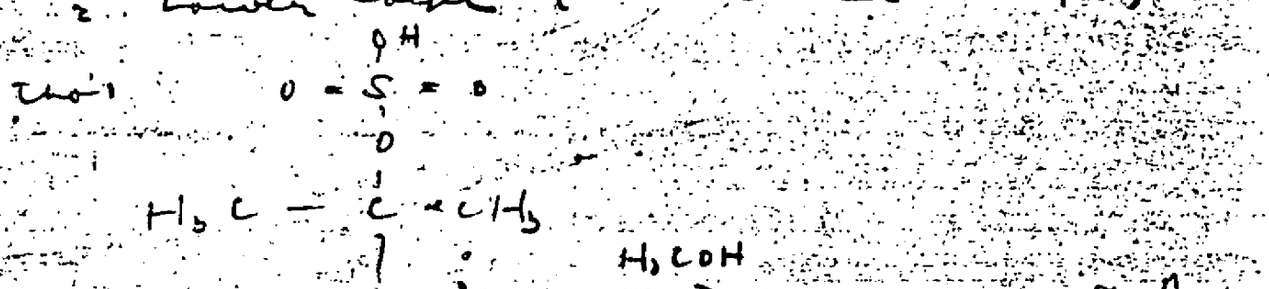
$\xrightarrow{CH_3OH}$ OCH3 on carboxyl group $\xrightarrow{\Delta}$ 3 MeMe + H_3PO_4

above was erroneous

and $ClSO_3H$ proved otherwise

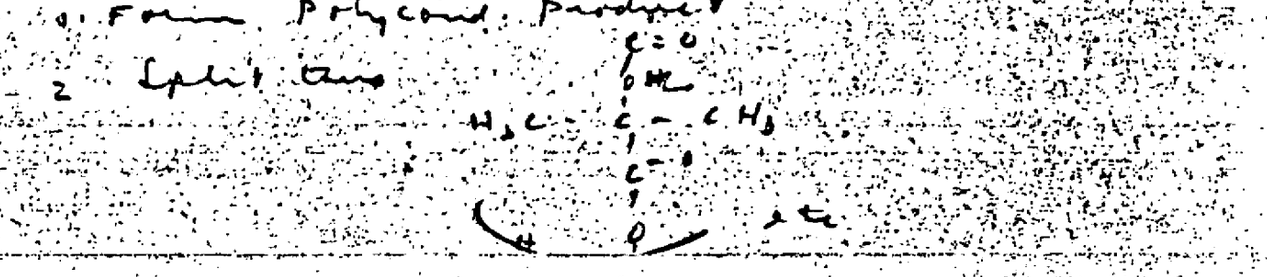
1. liquid systems formation
2. Lower Loss (lower than H_2SO_4?)

Thus



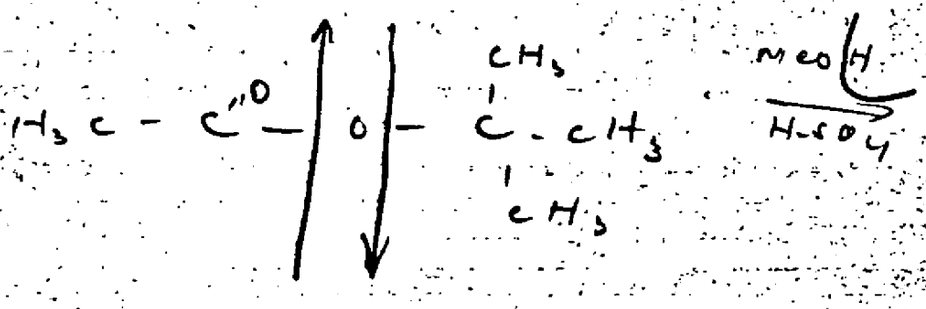
now know

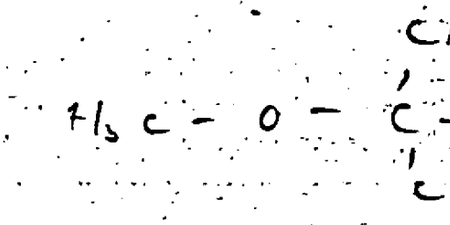
1. Form polycond. products
2. Split thus



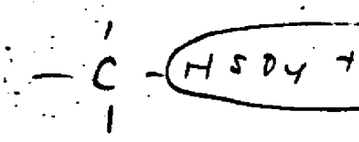
(2) 5-27-47

analogy - tertiary butyl acetate



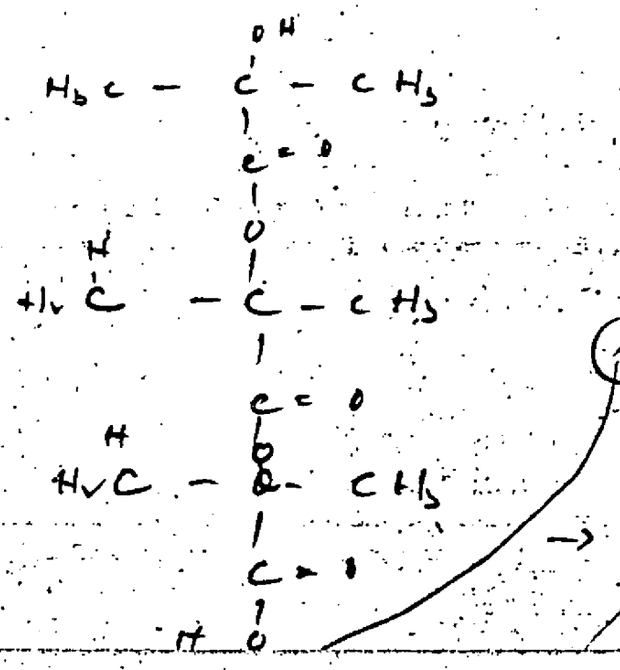


above mix

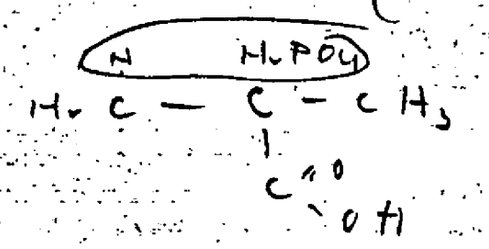


If MeOH is not present, then forms isobutylene

Dealing with tertiary -C end



(③) 5-27-47



$\xrightarrow{\Delta}$ methacrylic acid

also,

cond prod formation is reversible

Proposals

1. Simultaneous esterification & decomposition of polycondensation product.

2. Drive off methacrylic acid as formed.

3. H_2SO_4 addition to promote the acid formation, possibly with simultaneous esterification

4. Stabilize methacrylic acid as formed (with inhibitor)

1. methanol (Parain Vapor)

10% H_3C CO_2H ¢

~~50~~

709 × 0.15 = 11.5

~~136~~ $\frac{142}{364}$ × 11.5 × 1.15 = ~~[illegible]~~

Time	Flask °C	Lower col °C	Upper col °C	Notes
12 32	89	69	64	Start of Dist.
12 55	97	70	65	
1 00	99	69½	65	
1 05	102	70	65	
1 10	106	69½	65	
15	108	70	65	
20	111	70	65	
25	114	71	65	
30	117	71	65	
35	122	73	65	
40	125	74	65	
~~45~~	130	75	65	Discontinued distillation
50				
1 55	Beginning of reflux			1 bubble/min
2 00	Temp 130°C			
3 15	142			
4 00	140	—	69	10 bubbles/min
4 20	152	—	73	
5 00	158	—	85	9.2 amps.
5 10	162	—	89	Col #2
5 35	162		66	
40	166		77	
47	168		97	6 bubbles/min
6 02	173	147	118	57 V 6 bubbles/sec

33.5
270.7
608

57
44
64
5
170

170 g

57
9
35
101
61
162

89

80 g 85%

107.6
42.5
60

12g $H_2O = \frac{2}{3}$ mol

$P_2O_5 \xrightarrow{3H_2O} 2H_3PO_4$

$\frac{2}{9}$ mol P_2O_5

$\frac{2}{9}$ 142 = 31.6 g. 42.5 g.

Tare Flask: 250.5

11.2 g. lactide

148 g. H_3PO_4 (100 %)

107.5 g. 85% H_3PO_4
42.5 g. P_2O_5 } 2 g bet

13 g. methanol

9:03

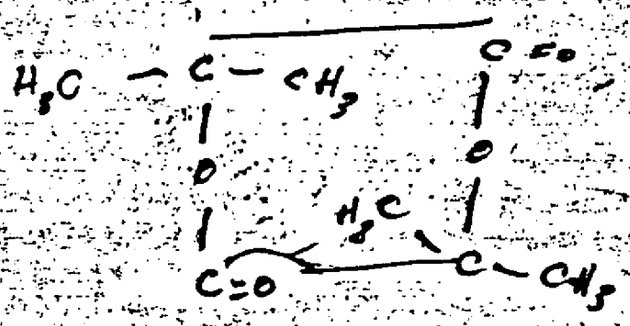
9:45 Start admission of mixture

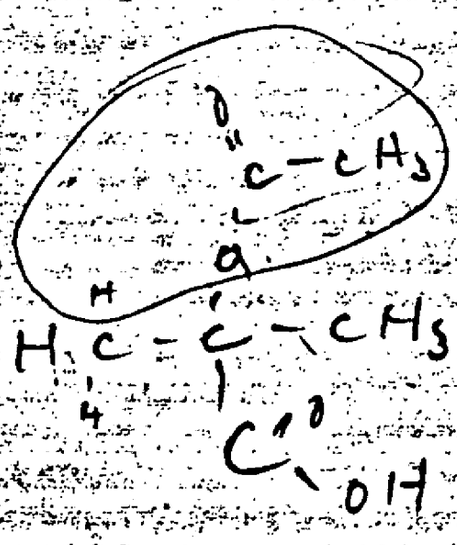
7.5 g recovered

8.2 cc (3 cc upper layer)

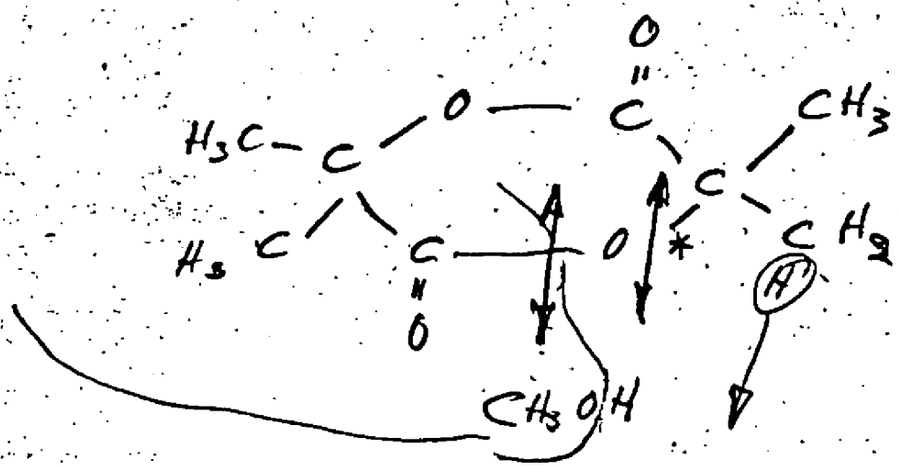
Lower layer 25% Me Me

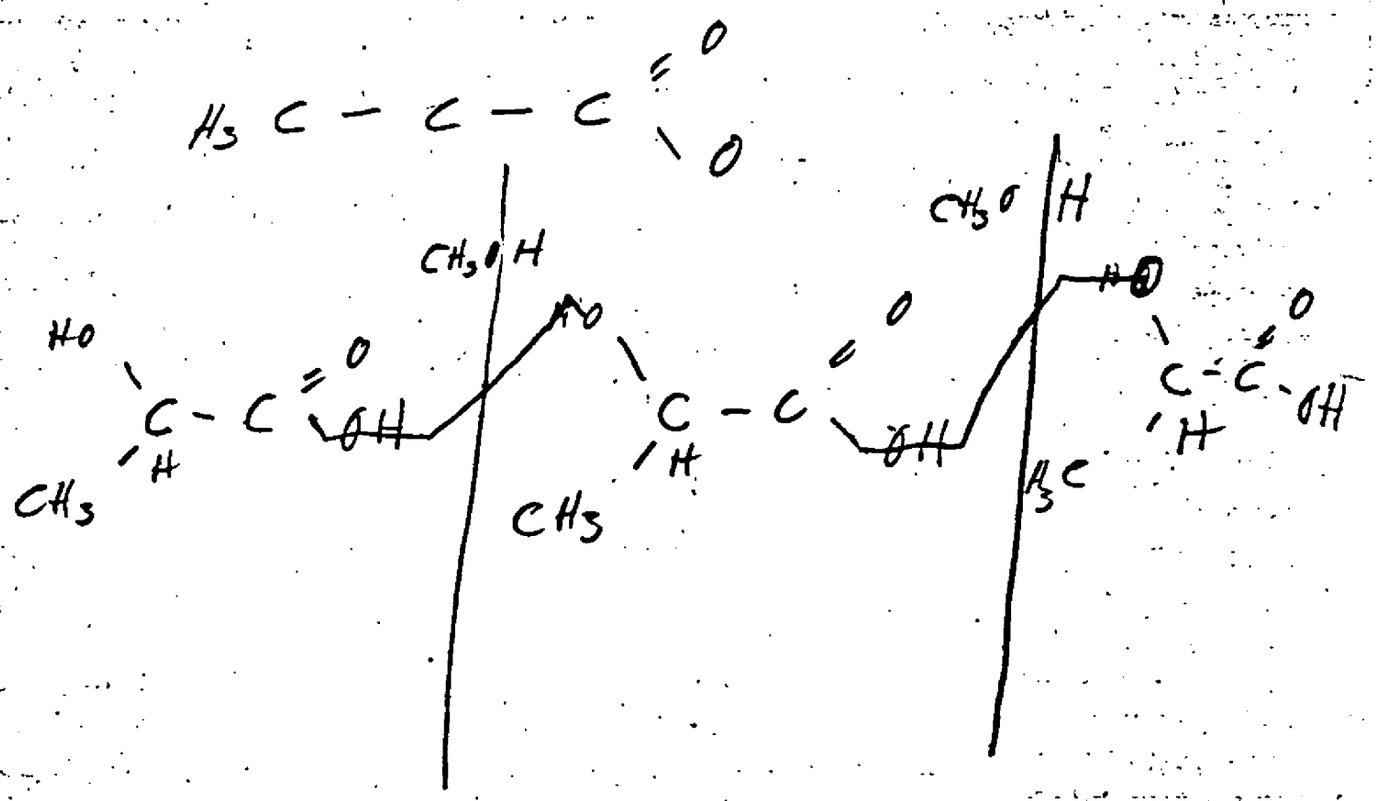
Flask + phosph: 407.5
250.5
157.0
148
9 g. material other than H_3PO_4 in flask





Rl-1R-6-4797





31.00
27.70
3.30

28.60
23.90
4.60

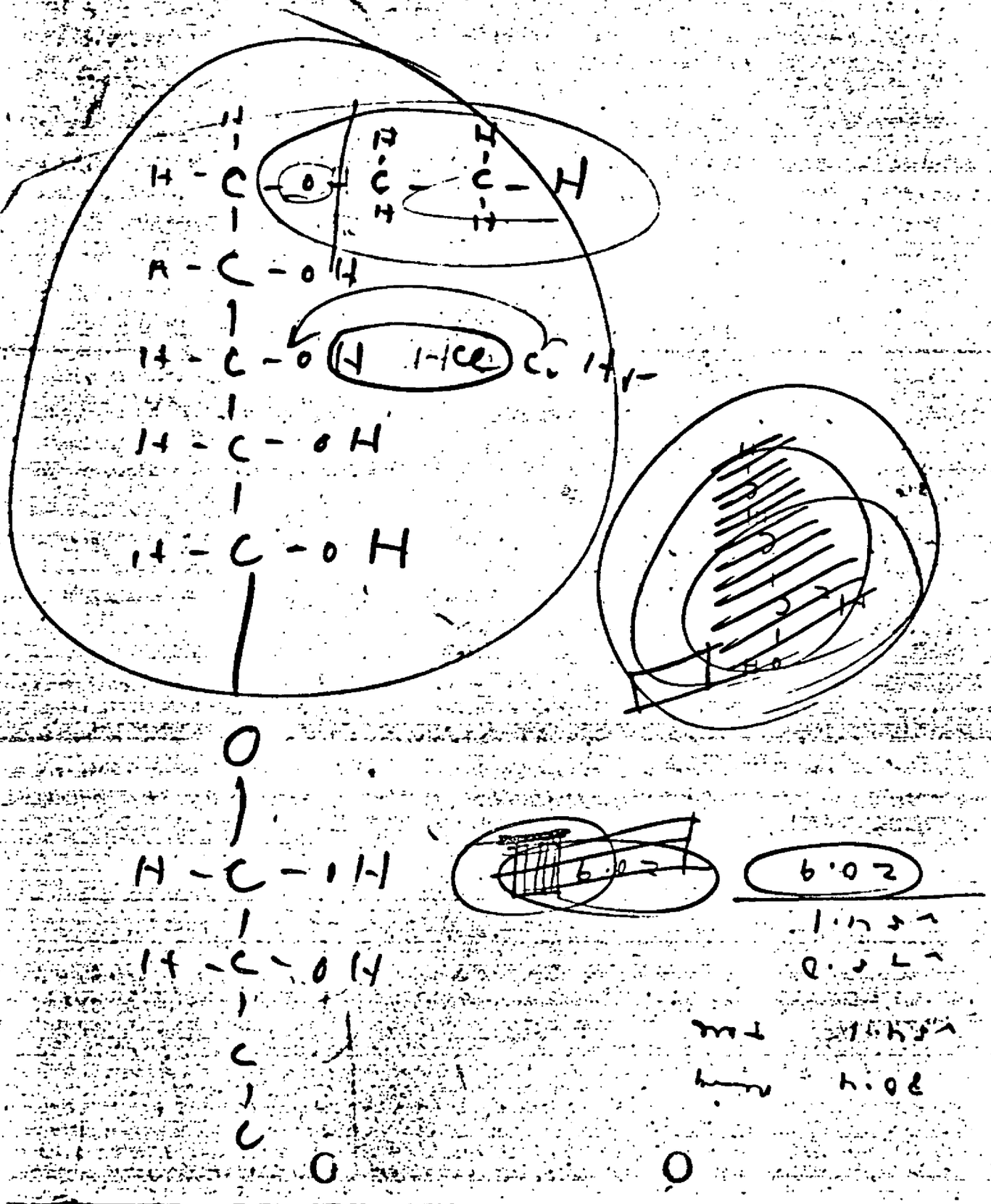
34.00
27.40
6.60

31.00
27.00
4.00

27.70
23.70
3.70

30.50
24.00
6.50

31.00
25.00
6.00



2-13-47

Naphthene Esterification

Time	Feed	Still Pot °C	Adapter °C	Reaction Tube Temp #1	Temp #2	Temp #3	Notes
20	155	135	136	172	170	180	
22	140	120	137	172	169	181	
25	145	150	137	171	169	180	
25	150	135	137	172	168	181	
30	155	125	133	172	168	182	
35	160	125	130	173	170	183	
40	162	120	128	175	170	181	

Distillation

Charge to Still Pot.	1st Fract. 45-50°C	2nd Fract. 50-45°C
563.2	387.1	183.0
2558 Tare	150.9 Tare	141.1
3120 gm.	236.2	46.9

3rd Fract.

13.0 g.

Res. 39 g.

236.2
46.9
13.0
3.9
300.0

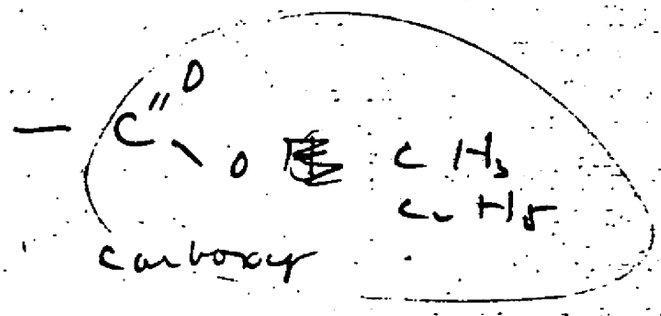
2-13-47

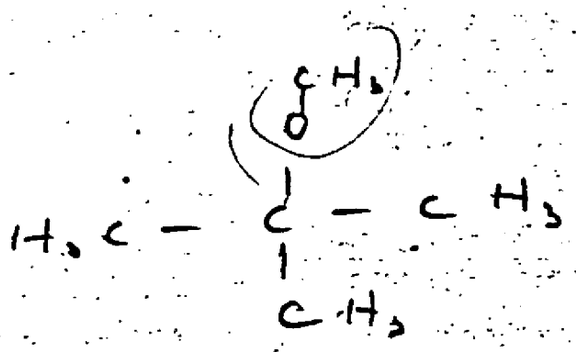
Vapor phase esterification

Charge
Cell PM

100 gms α-OH acid
100 gms MeOH
128 gms MeOH + HCl (recycled)

time	cell PM, °C	adiabatic, °C	Reaction tube T#1	T#2	T#3
40 PM	—	20	20	20	20
3 10	17	124	124	125	120
3 20	40	110	127	128	127
3 30	75	124	126	126	123
3 35	0	125	122	125	126	126
3 40	25	127	122	140	122	122
3 45	35	129	125	141	121	121
3 50	40	127	125	144	125	124
3 55	45	126	126	146	129	127
4 00	47	128	129	141	129	124
4 05	50	126	128	139	129	123
4 10	54	116	127	137	130	120
4 15	58	126	130	130	126	119
4 20	62	132	127	126	126	117
4 25	64	125	127	123	126	118
4 30	67	127	127	122	125	123
			127	123	127	124


carboxy



2-13-47

Uranor Phase Concentration

time	Feed	Still Pot, °C	adapter °C	Reaction Tube T#1	T#2	T#3
4 45	79	123	119	130	130	128
4 50	83	127	124	129	131	127
4 55	85	125	126	127	129	125
5 00	91	126	126	127	129	123
5 05	94	127	120	124	123	120
5 10	99	123	118	124	125	121
5 15	102	125	126	125	125	122
5 20	—	90-170	137	127	129	128
5 25	131	130	126	129	130	129
5 35	141	127	120	127	129	125
5 40	146	60-130	128	127	129	125
5 45	150	110	127	127	129	125
5 50	158	123	130	127	129	124
5 55	162	123	128	127	129	124

yield

503
260
243
amu

327
243
285 amu dot

residue

8.7 g

2-18-47

Lab Scale Esterification

Pressure 115 mm.

charge in still pot:
- 100 gm. α-OH acid
- 100 gm. MeOH
- 123 gm. HCl

time	feed	still pot °C	adapter °C	Reaction Temp #1	Reaction Temp #2	Reaction Temp #3	Notes
0	—	27	34	112	101	121	start
10	5	121	132	177	171	181	
15	10	120	130	172	173	175	
20	15	122	131	170	172	174	
25	20	129	134	171	175	176	
30	25	125	136	170	177	179	[illegible]
35	30	124	135	168	177	180	
40	37	123	135	166	175	185	
45	trouble – pressure dropped to 350 mm.						O.K.
45	55	128	132	165	170	180	
50	60	125	129	167	172	179	
55	65	120	131	167	166	193	
60	75	130	132	—	—	—	
65	85	110	131	169	168	184	
70	95	125	131	168	167	182	
75	100	120	133	170	170	184	
75	105	129	133	172	170	184	
80	115	118	133	175	172	185	
85	120	132	133	175	173	185	
90	125	130	134	172	170	182	
95	[illegible]	128	135	172	171	180	

2-25-47

Redistillation of α-OH-CeHO

Still Pot °C	Lower Col °C	Upper Col	Press	Notes
110-160	80-150	60-133	760	
170	160	not Dist.	760	
130	110	85 (Aug 24)	150	
165	150	173 (Aug 72)	100	cut
162	145	80	75	

Lam 3.9260

1

3-4 9. NE ME

α-OH and

104 + P_2O_5 142 →

3(284) / 3 = 94.7 g.

$3H_2O + P_2O_5 \rightarrow 2H_3PO_4$

$39 \times \frac{64}{104} = 4(94.7)$

23.7 g. P_2O_5

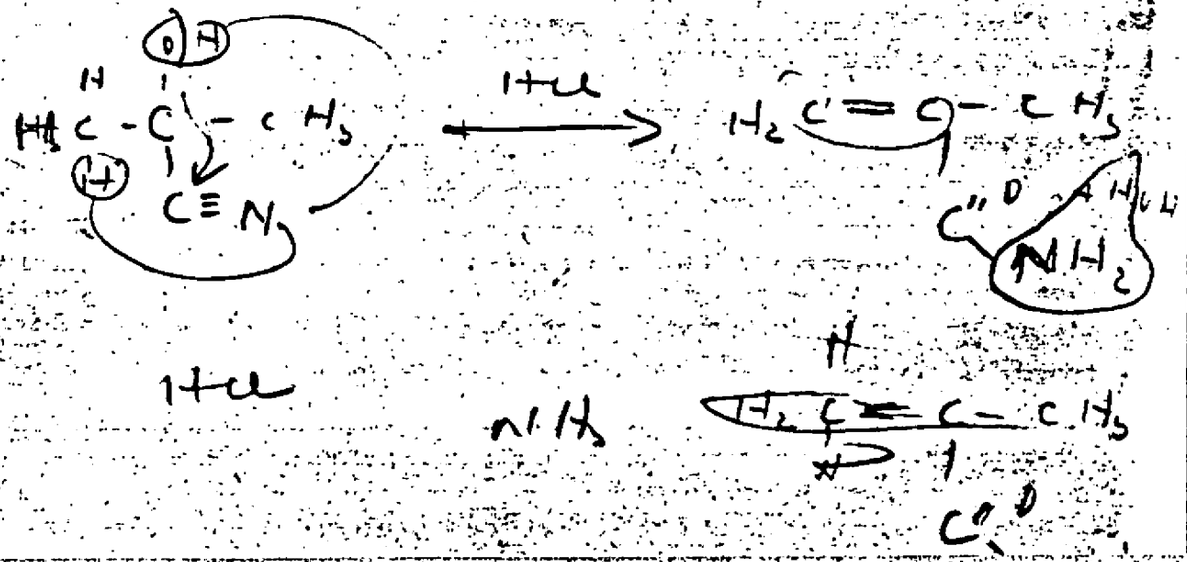
24 grams

$137.4 \times 0.667 = 4(91.8$ grams

= 22.9 grams

$H_3C-C(=O)-CH_3 + HCN$ 34.4

39 g



To Rec Dome

Filter α-OH acid

maintain temp on Cyanohydrin Hydrolysis

lift up to Still, P₂O₅ Run

Test Poly Run

Clean-Unwash

Mop Floor

Toluene Sulfonic acid pellets Run.

1 57.707
56.5379
1.1691

56.850
56.5379
.3121

2 51.870
50.4723
1.3977

50.8467
50.4723
.3744

3 52.8683
51.5234
1.3449

51.8864
51.5234
.3632

4 50.2166
48.8037
1.4129

49.2291
48.8037
0.4254

[illegible] difficult. In the second case it has been possible by this method to prep. esters which had previously tend to be prepared from their components by heating them in sealed tubes. In many cases it is desirable to use p-MeC$_6$H$_4$SO$_3$H as a catalyst. Numerous examples are given of esterifications by this method.

Me Lactate (b.p. 144°) (15 cm. Vigreux)

1. Distill mixt at atmos → 240 gms (64°-90°) bath 110°
2. Distill at 180-100 mm → 37 gms (35-50°C) bath 100
3. Distill at 100-154 mm → 28 gms (53-58°C) bath 100
4. Distill at 40-25 mm → 58 gms (61-66) bath 120-160

loss 18 gms.

5. Residue 33 gms.

6. Redistill (2 & 3) (atmos) → ester

7. add 4 to 4 & redistill → 52 gms pure Me Lactate

Lactic acid 100°C (1M mm).

Et Lactate

80 g. acid
82.5 g. alc.
1 g. $C_6H_5SO_3H$

1. 72 gms. 760 mm 77-78°C (azeotrope)
2. 12 gms. 170 mm 41-43°C
3. 6.9 gms 50 mm 75°C
4. residue 31 gms.

[illegible] → 60 gms Et Lactate

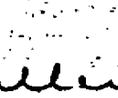
6/6/50

The preparation of esters (liquid phase)

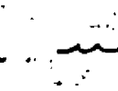
C.A. 16, 2111 (1922)

H. Wuyts and R. Baillenx

orig. Ref. Bull. soc. chim. Belg. 29, 55-67 (1920)

W. and R. mention the use of H_3C  SO_3H as a catalyst.

Thus for the preparation of methyl lactate, they use

a: 80 gms. Lactic acid (75%)
92.5 gms. MeOH
1 gm. catalyst, H_3C  SO_3H.

b: 15 mm. Vac.

c: yield 81%

C.A. Ref.

The process of esterification is so conducted at the ordinary pressure or under reduced pressure at such a time that only a portion of the products or one of the reacting substances is volatile. Two cases occur, namely (1) in which the ester is the most volatile component, (2) in which water and alc. are the most volatile components and the org. acid the least volatile. In the first case the ester distills off as formed, although the process may be rendered more complex by the eventual formation of binary or ternary mixtures with lower b.p.'s which may facilitate the dem-

Distillation of me-me Run 3/22/41

Time	Bath Temp	Still Pot Temp	Column Temp
1:18	178° C	108 °C	101.5 °C

Esterification via p-toluene sulfonic acid

( )

Charge

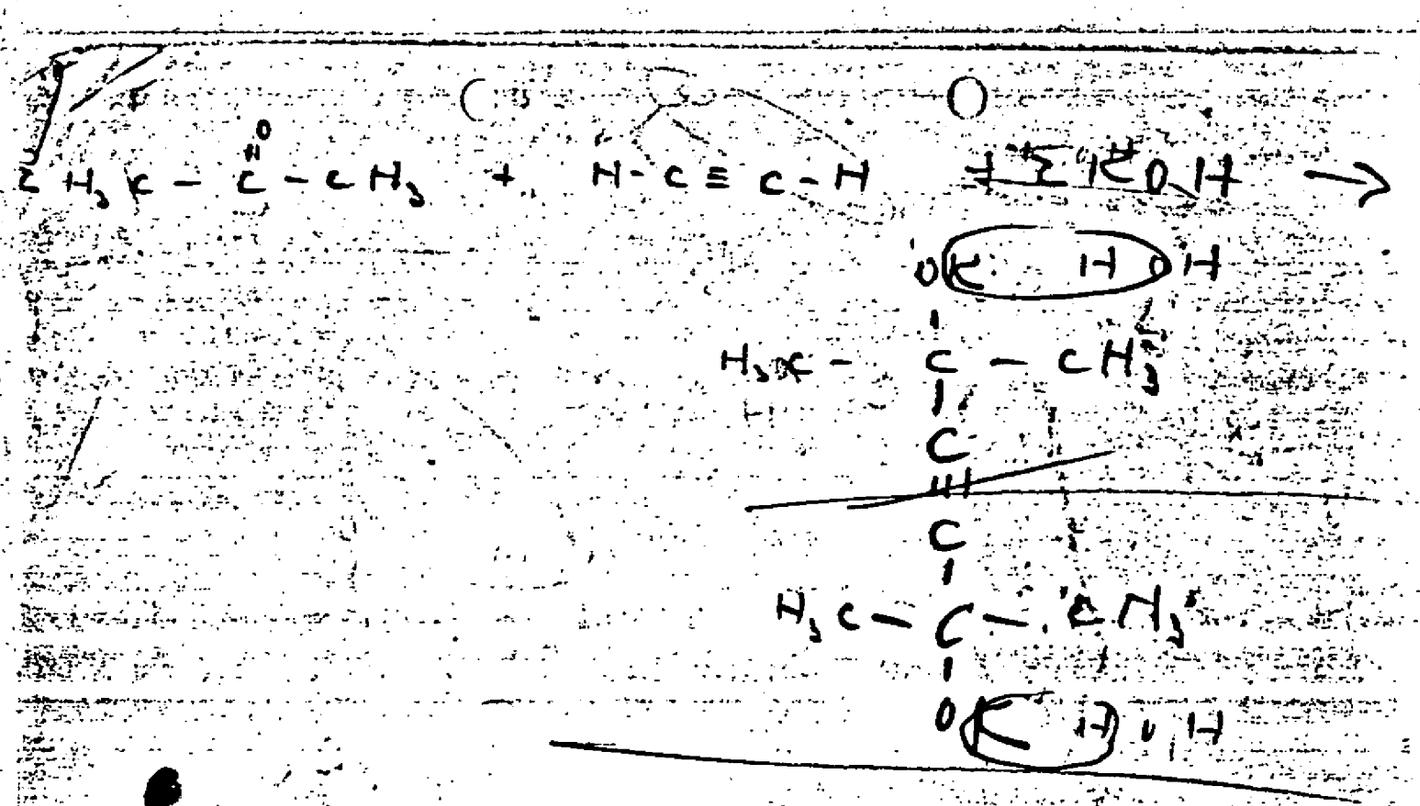
52 gms α-OH acid

6.9 cc MeOH

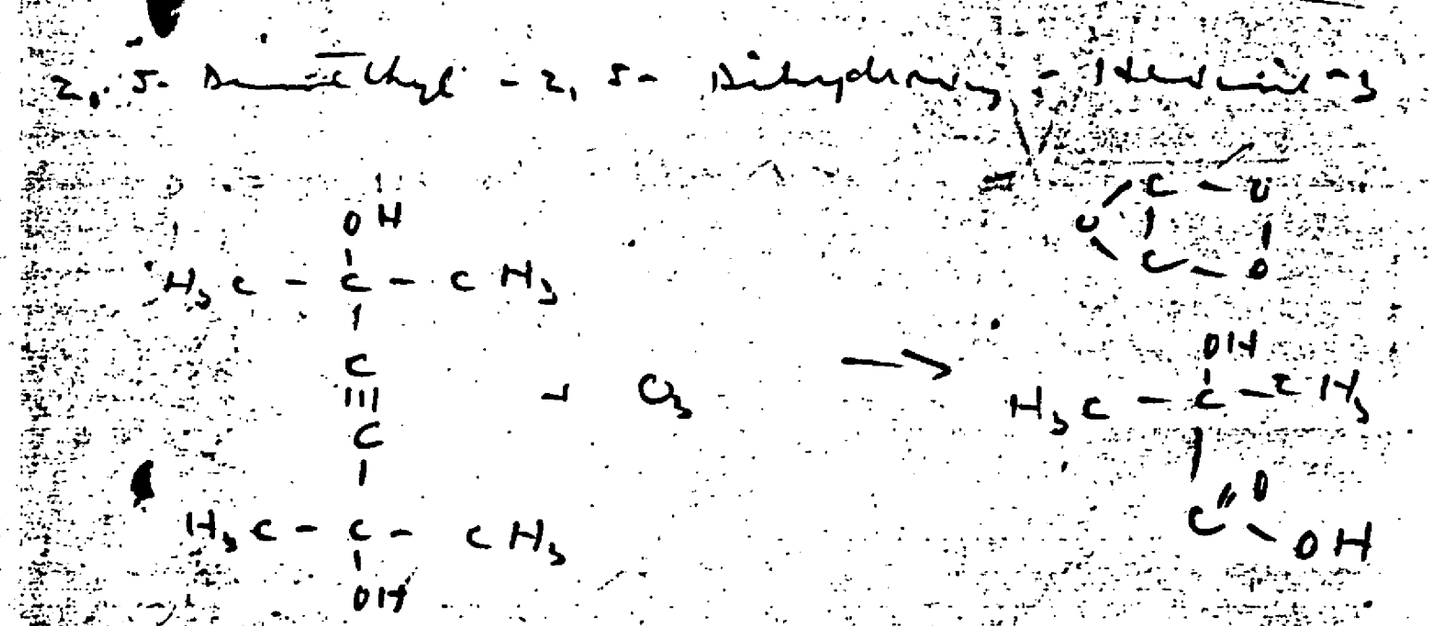
0.8 gm. p-toluene sulfonic acid

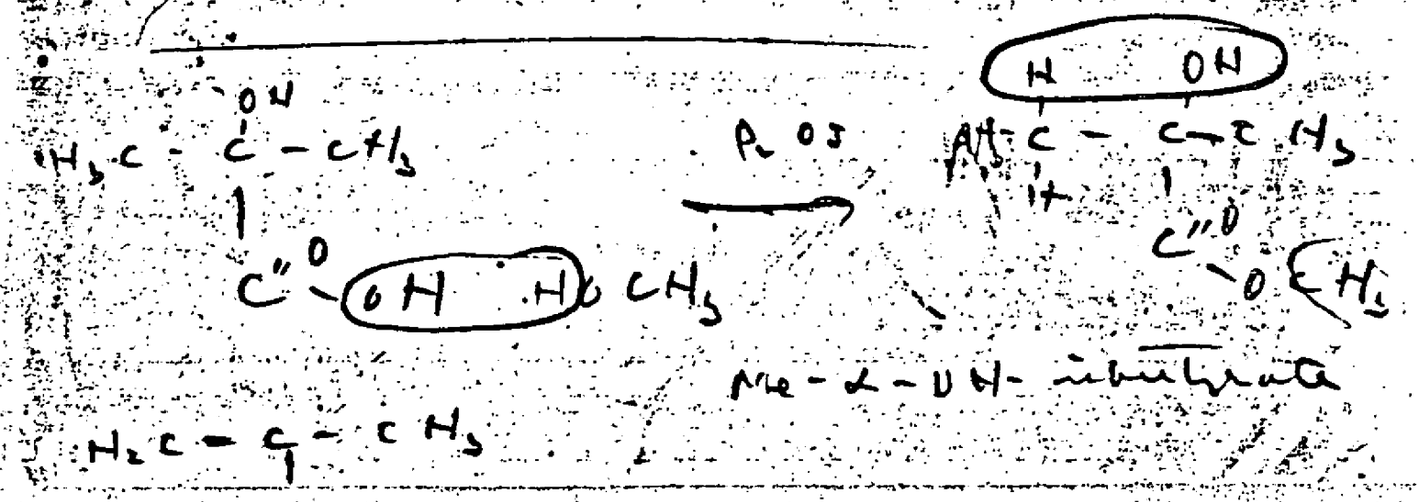
Distillation record - started 1:45 am 7/2/59

time	Pot °C	Still Pot °C	Lower Col °C	Upper Col °C	Notes
10	82½	68	66	64	
15	79.5	68	66	63	
20	84.	68	66	64.	
2 30	~~95~~ 90.	68.5	66.5	65.5	
2 35	90.5	69.	66.8	65.5	
30	92.	69.3	67.	64.	
35	98.	70.	67.5	65.5	
2 40	98.8	70.8	68.8	65.1	— flask empties
2 50	98.	72.	70.5	68.	
2 55	95	~~[illegible]~~ 73.5	72.8	67.5	— therm. changed
3 00	99.	76.	73.6	68.5	
3 05	~~(100)~~ 99.	78.3	74.5	68.5	
3 10	99.5	81.	74.5	67.	
20	~~56~~ 75.-	56	-(+50.)	41	vacuum
2 30	77.	61	-(+50)	38	
40	95.-	65.-	+54.	47.5	
3 43	99.	69.-	60.5	52.	
3 45	99	77	61	46.?	
3 50	99	74	62	53.5	
3 54	99	73	64	48.5	



2,5-dimethyl-2,5-dihydroxy-1-hexyne-3





Me-α-OH-isobutyrate

①

Production of (methyl methacrylate from
α-Hydroxy isobutyric acid

Purpose of work

1. To all conditions of reaction
2. To get a quantitative idea of yield

Procedure & Results

1. Grams of MAOH in 500 cc Smith flask
2. add 50 gm P2O5

269.2 Tare
215.2
54.0

Estimate 4 g. P_2O_5 lost mechanically during addition

3. Temp. rises as P_2O_5 added. Fizzing occurs. Brown-green color in material. Temp at 17°C for about 30 sec, otherwise controlled at 10-12 C. White vapor [illegible] methanol. Solution of syrupy consistency results.

As P_2O_5 is put into methanol, immediate fizzing & local heating occurs at point of addition.

4. Heavy brown syrup results. Add 3 cc methanol to allow for mechanical losses.

5. Add α hydroxy iso butyric acid. No appreciable heat of reaction. 52 g. acid added at temp 3-7°C. Wash down acid with 2 cc methanol.

Esterification with R_2O_5 — 2/28/47

Distillation — Sheet III

Time	Bath °C	Batch °C	Lower Column Temp °C	Upper Column Temp °C	Press mm.	notes
40	230	204	106	71	Atm.	Appearance of non-condensible in column. Cut

p toluene sulfonic acid 9 Kg
if not
fine organics
Mr Segesserman

A B Morris

phosphorus pentoxide
ic anhydride ~~1~~ - ½ # pure grade

phosphorus trichloride 1# (4 #)
$Ba(OH)_2 \cdot 8H_2O$ 1# commercial
MgO anhydrous 1#
$POCl_3$ phosphorus oxychloride 2 #
1 # Na_2SO_4, anhydrous

2 retorts for sterilization - 500 cc flasks
fuse Na_2SO_4, + large desiccator
100 gms.
filter α-OH acid, + dry - try to separate
tile

$$HC \equiv CH + HOH \longrightarrow H_2C = C(H)OH + \Delta$$

$$H_2C = C(H)O(H) \longrightarrow H_3C - C(H) = O$$

$$H_3C - C(H) = O + HOH \longrightarrow H_3C - C(=O)OH + H_2$$

$$2\ CH_3COOH \longrightarrow CO_2 + HOH + H_3C - C(=O) - CH_3$$

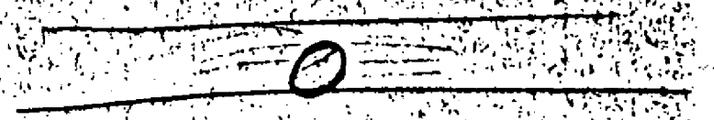
$$HC \equiv CH \qquad CuCl_2$$

$$Cl\,C(H) = C(H)\,CuCl$$

$$Cl\,C(H) = C(H)\,AsCl_2 \qquad AsCl_3$$

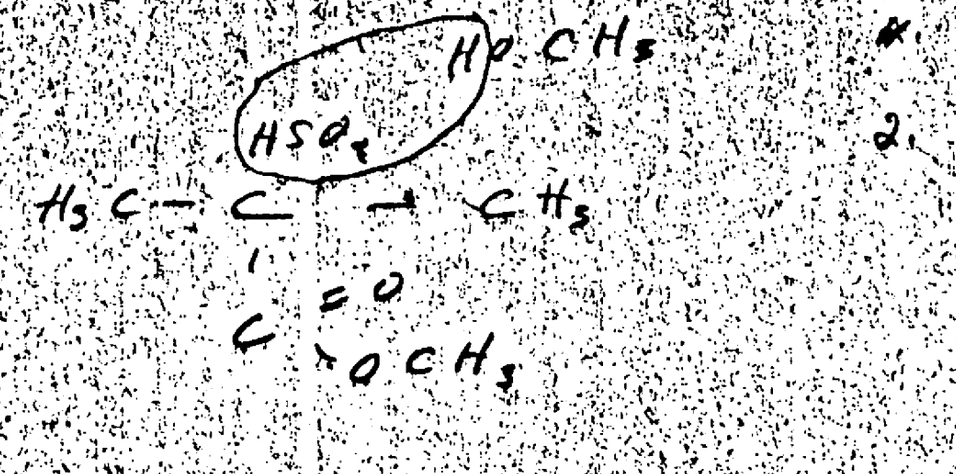
$$ZnO + HOH \rightleftharpoons Zn(OH)_2$$

$$HO\,C(H) = C(H)\,Zn(OH)_2 + HOH \longrightarrow Zn(OH)_2$$



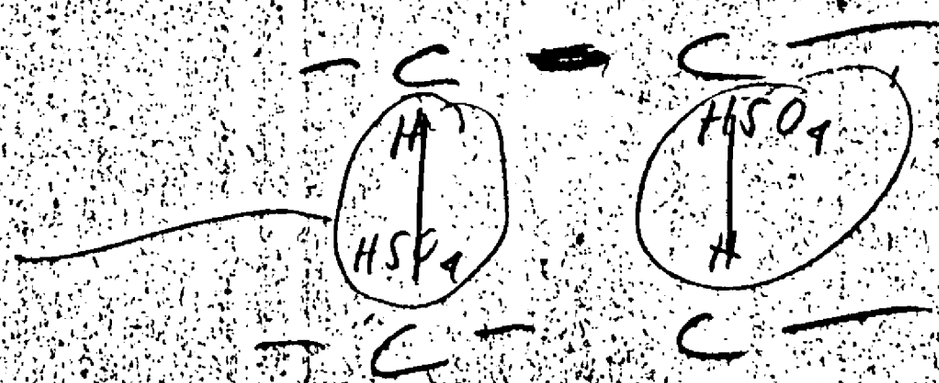
$2\ \frac{BTU}{lb - °F}$

1. no esterification
   a. silica gel
   b. dehydration of the mg. as
      of anhydrid acid
2. azeotrope of acid & methan



64 gms

$Na_2SO_4 + H_2SO_4 \longrightarrow 2NaHSO_4$



59 gms of
98 gms of

16 gms — HCl

distill at 100 mm.

cut at – up to 30°
30° – 65°
65° – 80°

② include weights + residues –
test all cuts
③ with weak $KMnO_4$

α – Hydroxy ④ packing of tube with SiO_2 – larger diameter packing needed

Isobutyric Acid

from Drying oven

22
65
57
760
105

409

182

$\frac{182}{534} \times 40 =$ 31.1 g water

$\frac{31.1}{182} = 0.171$ mol. water

0.342 mol of ZnO

$= 0.342 \times 81.4 = 27.8$ g ZnO

$\frac{183.4 \times 1}{81.4 \times 1} \times 27.8 = 62.7$ ZnCl2

use 80 gm ZnCl2

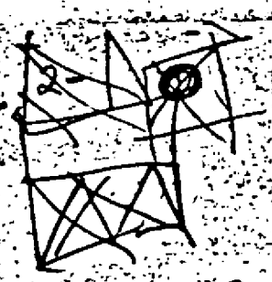
$\frac{59}{10}$ $\frac{22.4}{x}$

$x = \frac{59}{22.4}$

$\frac{59}{22.4}$ $\frac{3.8}{3}$

$\frac{59}{22.4}$ $\frac{1.8}{0.4}$

$\frac{59}{22.4}$ $\frac{3.8}{3}$



52 gms. α-OH isobutyric acid = 0.5 mol

2 mols { 48 gms. MeOH
16 " " saturated with Hydrogen Chloride

0.5 mols H_2O coming off

1 mol Na_2SO_4 takes up 7 mols of H_2O

$\frac{1}{7} = \frac{x}{0.5}$ } $7x = 0.5$

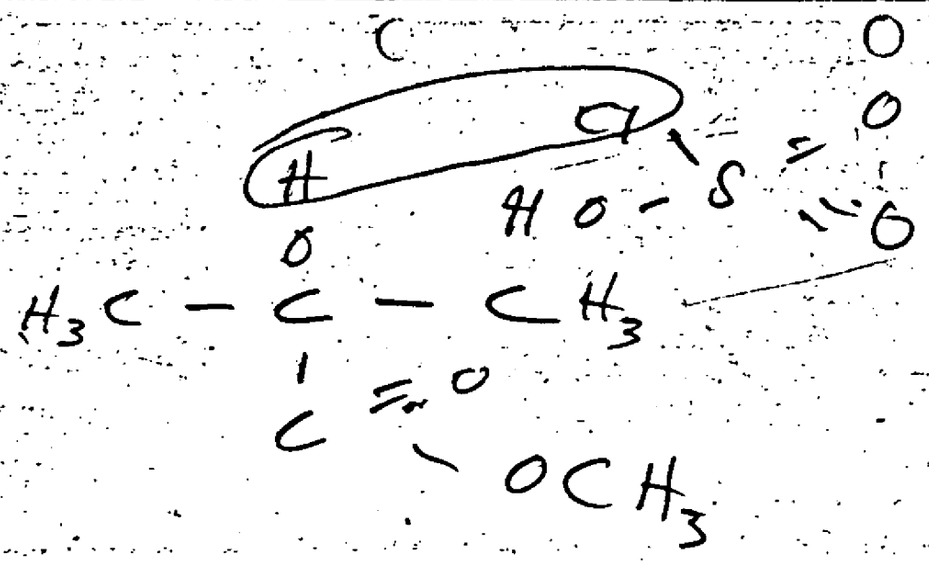
$x = \frac{0.5}{7} = 0.07\frac{1}{7}$ mols Na_2SO_4

$Na_2 = 2 \times 23 = 46$
$S = 32$
$O_4 = 64$
142

0.071
142
994
10.082
5.04
15.12

0.0714
70 | 5.00000
490
100
70
300
280
20.

31.50



V_2O_5
V_2O_4
V_2O_3
VO

$\cancel{V_2O_5 + HOH \rightarrow H}$

$\cancel{V_2O_5} + H_3C-\overset{H}{C}=O \rightarrow \cancel{V_2O_4} + H_3C-\overset{O}{\overset{\|}{C}}-OH$

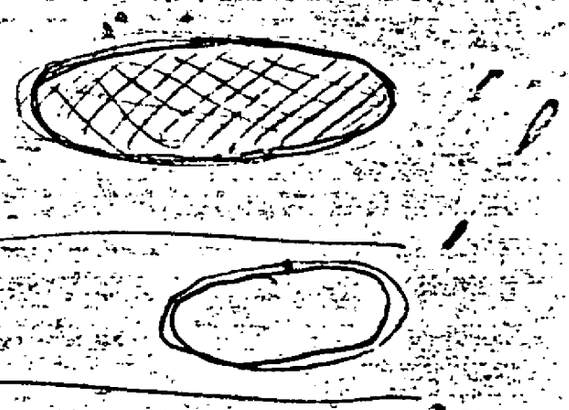
$\cancel{V_2O_4} + HOH \rightarrow \cancel{V_2O_5} + H_2$

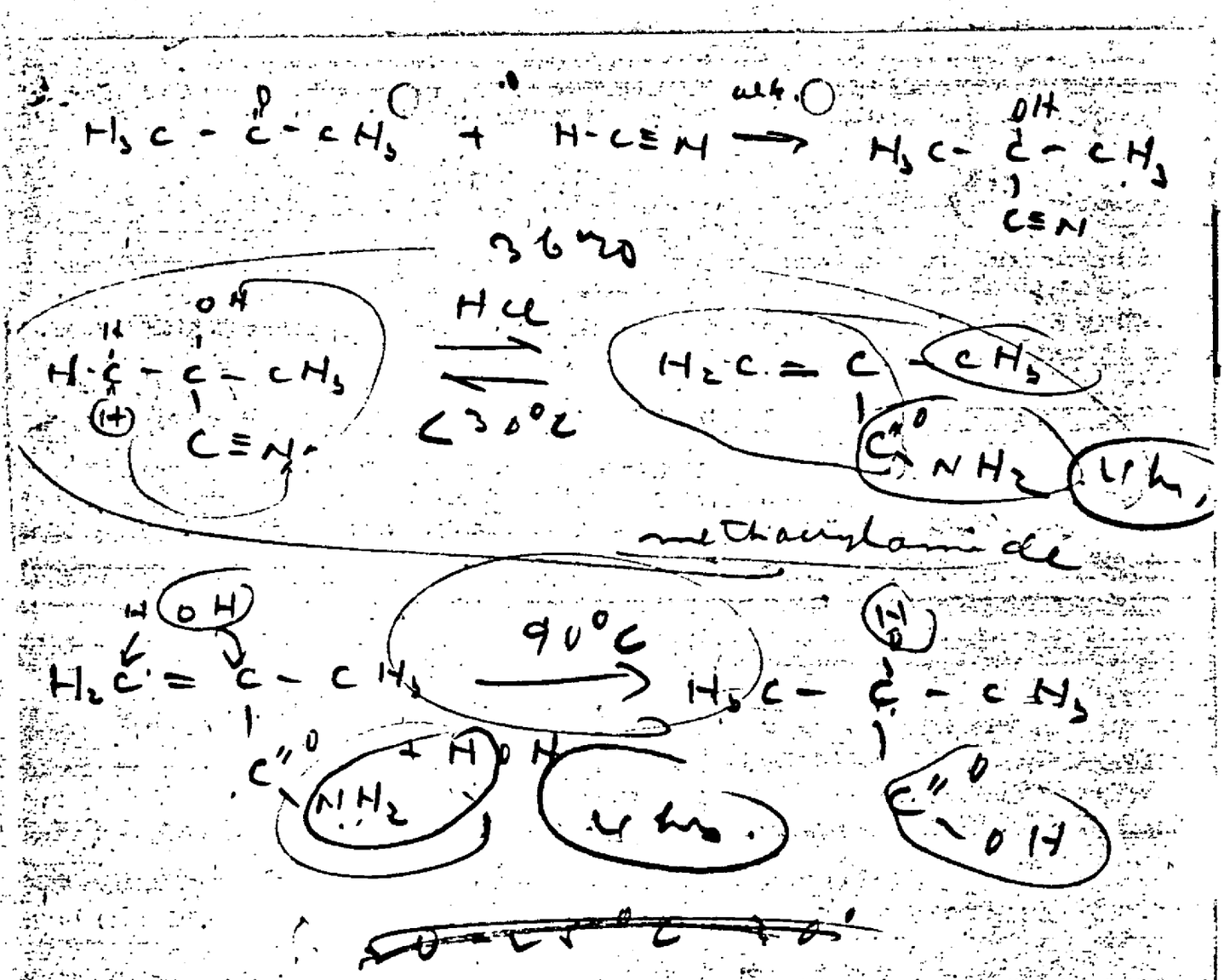
$H_3C-\overset{O}{\overset{\|}{C}}-OH + ZnO \rightarrow$

$H_3C-\overset{O}{\overset{\|}{C}}-O-Zn-O-\overset{O}{\overset{\|}{C}}-CH_3$

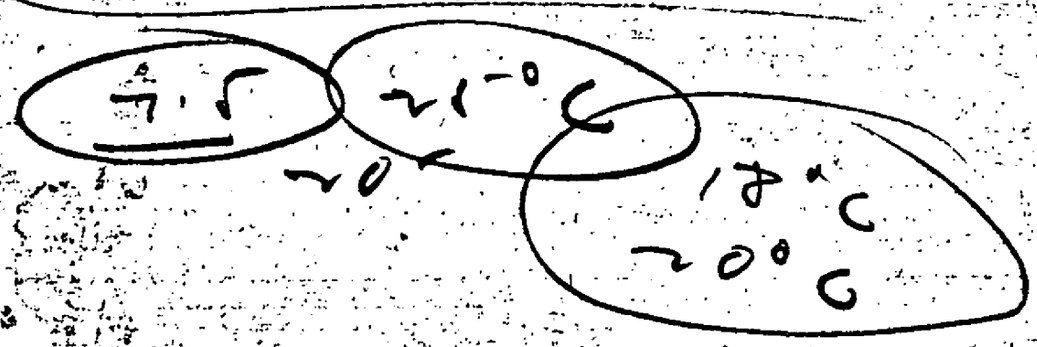
$Zn(AC)_2$

V





Urea - Formaldehyde Glue



v. OH's reacting with 1 P_2O_5

But 1 P_2O_5 takes care of 3 OH's

$$P_2O_5 + 3HOH \rightarrow 2H_3PO_4$$

1 mol α-OH acid requires $\frac{2}{3}$ mol P_2O_5

∴

0.5 mol requires $\frac{1}{3}$ mol P_2O_5

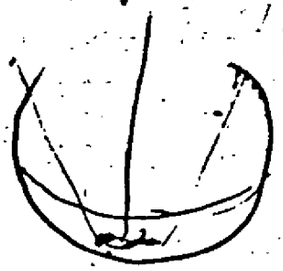
= 47.3 gms.

$$\begin{array}{r} 57 \\ \hline \end{array} \quad \begin{array}{r} 1.4 \\ 47.3 \\ \hline 49.7 \end{array} \quad 50\,g$$

$$\begin{array}{r} 49.7 \\ 47.3 \\ \hline 2.0 \end{array}$$

[illegible] acid

600 g



76

570 Pr 6 [illegible] 39.

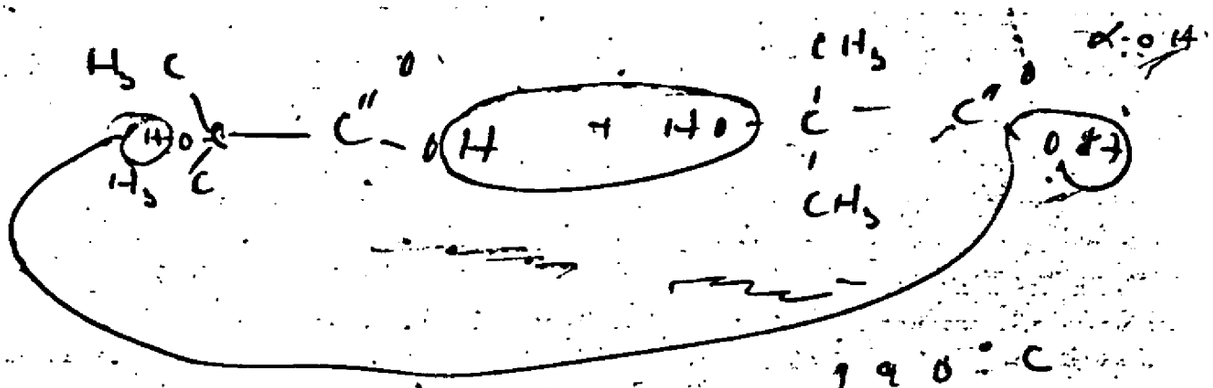
99

31

9 cc for Me. CD positive

C=C

Heat up to 180 for 1 hr

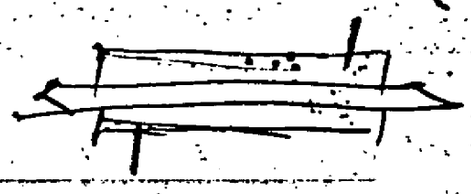


190 °C

3 moles

56.3 gms MeH

1 hr



NH_3 Test: 2nd flask + 15.9

Start time: 1:45

N_2 C

$NaHCO_4 + H_2CO_4$

$\rightarrow 2M$

25 cc

~~15.25~~

$$\frac{15(0.1)}{15+45}$$

0.50

25 cc of 1%

25 cc of K

50

0.25

15 cc of 1%

45 cc of K

60

0.75

~~[illegible] cc of 1%~~

25 cc of 1%

8.33 of K

33.33

25

15

40

~~20(1)~~

$$\frac{20(1)}{20+x} = 0.25$$

$$20 - 15 = 0.25x$$

$$x = \frac{5 \times 4}{3} = \frac{20}{3}$$

$$= 6\tfrac{2}{3}$$

$$25 - 25 \times \frac{3}{4} = \frac{3}{4}x$$

$$\frac{25}{4} = \frac{3x}{4}$$

$$x = 8\tfrac{1}{3}$$

ATEAT
ETTA
TREAT
HATTER
THEATE
THEATE

6615

ARE 244.2 g

80 g $CHCl_3$

40 g d-OH acid

364.2 g

ight after d-OH acid 362.3 g

inished

loss 1.9 g

added 20.0 g P_2O_5 at 3:20

384.2 g

Eat 5:00 378.5

ss so far 5.7 g

at 5:55 377.0 g

ss so far 7.2 g

dded 10.0 g P_2O_5 at 6:00

Corrected total wt. = 394.2 g (11 g)

384.6 g 7:30 PM

384.5 g 8:30 PM

dded MeOH 51 g

364 MeOH

weight 435.0

435.0

10:15 AM Weighing 4/1/73

20 10:15 AM Weighing 4/1/73

	flask temp	column bottom	column top	mm
79	30°	27°	23°	100
distils	41	37	28	100
1st fraction	—	—	35°	100
2nd fraction 1179	43	42	40	100
	45	43	41	100
	45			
	46	46	44	100
	47	47	44	100
	50	50	46	100
	53	53	51	100
	57	57	53	100
	60	62	55	100
	63	67	57	100
3rd Fract 149	67	67	57-60	100

Charge 125

	Fraction Temp	Bottom Mch.	Top of column	Pressure
41	43	36	31	100
125 56 67	44	38	31	100
	45	40	33	100
	45	40	34	100
	48	42	40	100
	49	44	40	100
	49	44	40	100
	50	44	40	100
	52	46	40	100
	53	46	41	100
	55	47	42	100
	58	48	43	100
	59	50	43	100
	62	50	44	100

refractive index

1.3830 at 23°

1/6