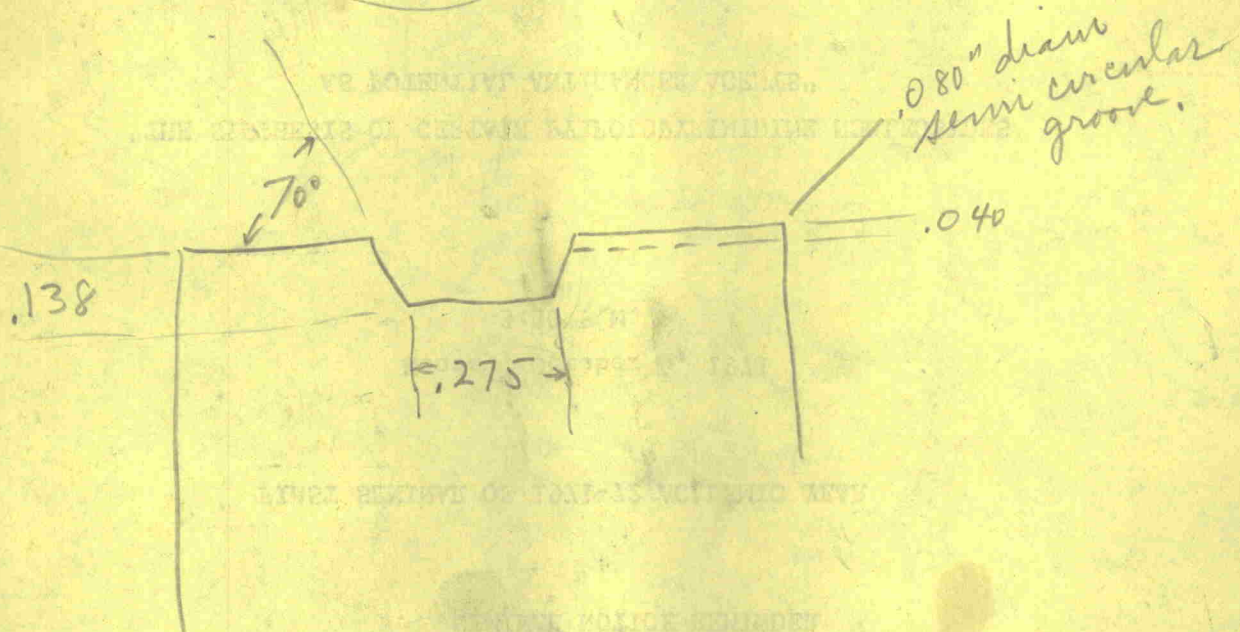
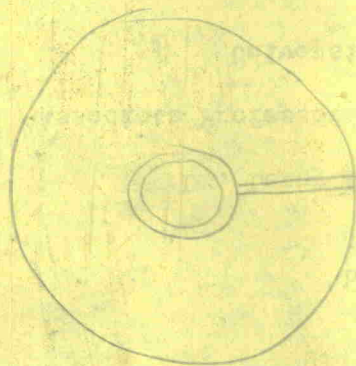


use  
brass  
electrode

Veenker  
Larry ~~Heberer~~ Stud Instruct.  
or



40004448

SEMINAR NOTICE REMINDER

FIRST SEMINAR OF 1971-72 ACADEMIC YEAR

Monday, October 4, 1971

3:30 P.M.

"THE SYNTHESIS OF CERTAIN PYRROLOPYRIMIDINE NUCLEOSIDES  
AS POTENTIAL ANTICANCER AGENTS"

by

Dr. Leroy B. Townsend

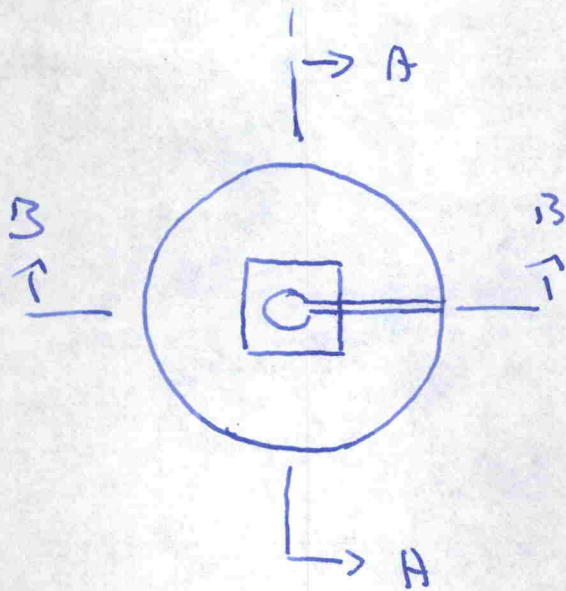
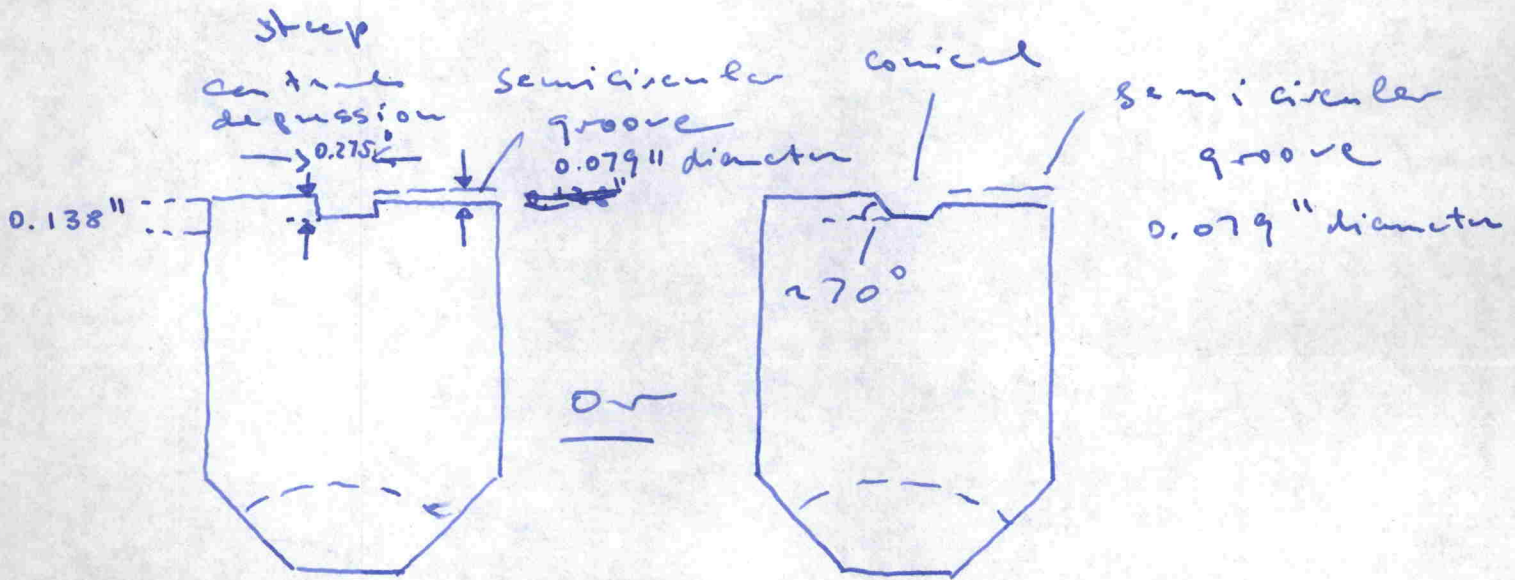
Associate Professor of Medicinal Chemistry

University of Utah

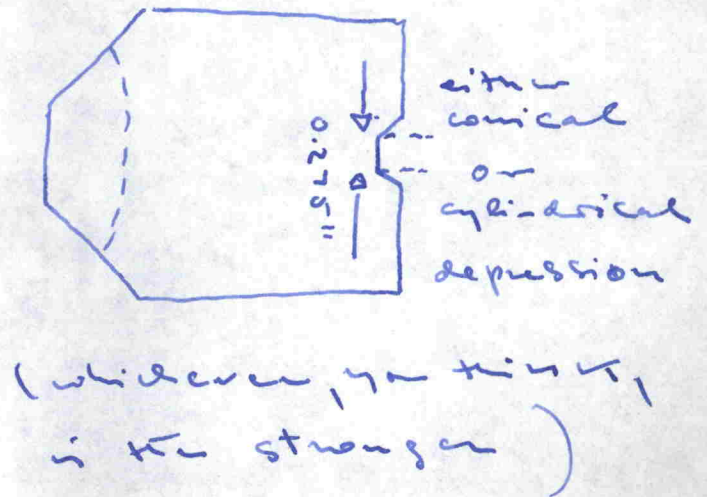
NOTE

October 11 seminar will feature Dr. H. Smith Broadbent as guest speaker.

# Sect. B-B



# Sect. A-A





The University of Western Ontario, London 72, Canada

Faculty of Science  
Department of Geophysics

October 1, 1971.

Dr. H. T. Hall,  
Distinguished Professor,  
Department of Chemistry,  
Brigham Young University,  
Provo, Utah.

Dear Tracy:

I am sorry that the student's drawing has been slightly misleading and I thank you for bringing up the matter in time. The central depression is meant to be circular in cross section and to have a flat bottom of 0.275" diameter and a depth of 0.138". The groove in the insert is supposed to be semi circular of 0.079" diameter and to continue into a circular hole of the same diameter in the binding ring. I suggested, however, that, for reasons of strength, the central depression should perhaps not be cylindrical but conical, i.e. have sloping walls with an angle of about 70°. I enclose a drawing with corrected versions of the sections you used in your drawing.

The quoted cost of \$1240 which, I suppose, arises from labour not considered in my order, will be accepted.

I am pleased to hear that I am safe with the oil. But how long do pressure hoses last; would they show symptoms of old age before they bust?

During term time we arrange in the Geophysics Department a number of lectures given by invited guest lecturers. I have suggested to Dr. Beck that it would be of interest to us to have you come here to lecture on a topic chosen from the field of high pressure-high temperature physics or chemistry. Would you like to? I think that February would be a suitable time. Please, let me know whether you are at all interested. By then our X-ray attachment for the press ought to be in operation too and maybe you would like to scrutinize it.

I am not yet very familiar with events in the field of high pressure and I have wondered whether there will be any scientific meetings concerning high pressure physics in the near future.

40004450

In trying to make 5/8" lithium fluoride cubes I have compressed lithium fluoride powder into cubic compacts which do not seem to be very firmly packed. Do you perhaps produce lithium fluoride cubes by melting?

With best wishes.

Yours sincerely,



H. H. Schloessin  
Associate Professor

Enc.  
HHS/mp

40004451

November 1, 1971

Prof. H. H. Schloessin  
Dept. of Geophysics  
University of Western Ontario  
London 72, Canada

Dear Helmuth:

I will attempt to answer a few questions that you asked in your letter of October 1.

The pressure hoses never seem to burst but sometimes spring a slow leak. This usually shows up as a bump on the hose, about the size of a marble.

I would like to give a lecture concerning some of our work on the synthesis of rare-earth compounds. I am coming East to receive the ACS Award for Creative Invention at the ACS meeting in Boston on Monday, April 10, 1972. My wife will be with me on this trip. If you could arrange transportation for the side trip to London, I would be happy to lecture sometime during that week.

A Gordon Conference on High Pressure has been tentatively scheduled for 1972. William B. Daniels, Professor of Solid State Sciences at Princeton University, is the chairman. Whether or not the conference will definitely be held has not yet been decided.

With respect to your question on lithium fluoride cubes, we have not compressed this substance. The material we have compressed is lithium hydride, LiH.

We are still working on your anvils and binding rings. I send my best regards.

Very truly yours,

H. Tracy Hall  
Distinguished Professor

HTH/mr

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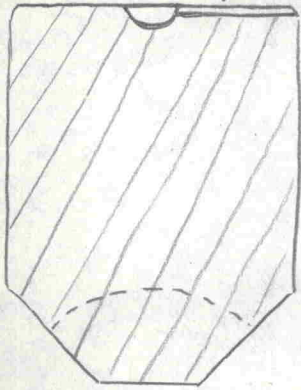
C  
O  
P  
Y

SECT. B-B

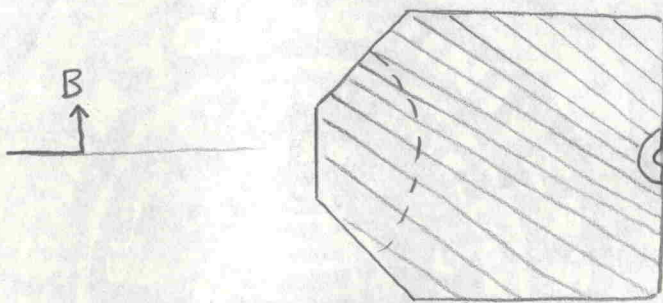
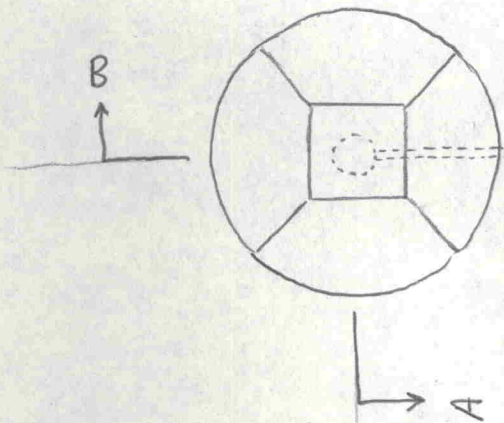
SEMI-CIRCULAR CAVITY 0.70 CM, DIAM.

SEMI-CIRCULAR GROOVE 0.15 to 0.20 CM. DIAM.

CONNECTS TO LATERAL HOLE  
IN BINDING RING



.70 CM = .275"  
 .35 CM = .138"  
 .15 CM = .059"  
 .20 CM = .079"



SECT. A-A

Cavity and groove will  
not seriously affect strength  
and could be 50% larger  
if desired

H. J. H  
23 Sept 1971

APPROX TO SCALE

40004453



The University of Western Ontario, London 72, Canada

Faculty of Science  
Department of Geophysics

July 23, 1971.

Dr. H. T. Hall,  
Dept. of Chemistry,  
Brigham Young University,  
Provo, Utah, U.S.A.

Dear Tracy:

Simultaneously with this letter I shall place an order for two ordinary 1/2" WC/CO inserts and, in addition, for two special WC/Co inserts set in binding rings. One of our students is going to measure ultrasonic wave velocity in samples under high pressure. For this purpose I have thought to obtain inserts with essential depression of 0.7 cm diameter 0.35 cm deep and with radial grooves with semi-circular cross sections of 0.2 cm diameter. The radial grooves should extend into bores through the binding rings. I would appreciate it if you would let me know whether you consider depression and grooves a severe impediment to the strength of the anvils. The walls of the depression should perhaps not be vertical but form an angle of about 75° with the insert base.

Work for adapting the press to X-ray diffraction work is making slow progress. The stage for the scintillation Counter Scan has been completed and work, following roughly the plan outlined to you sometime ago, on the support frame is half way through.

I have been using 1/2" anvils mostly and almost all of them show signs of old age by chipped edges and scallops. I have just written up some of our work dealing with the anisotropic thermal conductivity in enstatite. We have also attempted electrical conductivity measurements but found that with insulators and semi-conductors the relatively low resistivity of the gasket spaces between anvils cause severe interferences. However spraying the anvil faces with teflon and using more favourable geometries for the sample has improved our methods substantially.

Some time ago I replenished the oil content with oil taken from the container supplied by you (Y0-24 Hydraulic Oil, The Town Supply Company, Provo). I have noticed subsequently by looking at the regular oil leaks that the old

40004454



and the new oil are quite different in colour. Are they different or is this due to difference in age?

I would like to know whether you have actually constructed, and perhaps obtained some experience in working with, a cubic press operated by hydraulic rams suspended in the tie bars. If you have some reprints on your recent work, I should be pleased to have copies of them.

With best wishes and kind regards.

Yours sincerely,



H. H. Schloessin  
Associate Professor

HHS/mp

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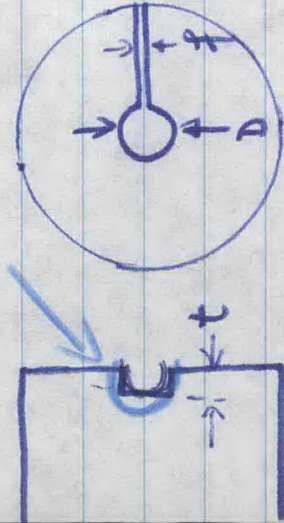
Maximum dimension :

D: Diameter : 0.7 cm

t: depth : 0.35 cm

f: fence : 0.15 cm  $\rightarrow$  0.20 cm

Semi-circular



September 23, 1971

Prof. H. H. Schloessin  
Dept. of Geophysics  
University of Western Ontario  
London 72, Canada

Dear Hellmuth:

Thank you for your letters a couple months ago concerning some anvils and binding rings for your high pressure machine. I apologize for my slowness in answering. I took a long vacation this year.

The binding rings are under construction and the anvils are on hand; However, I want to be entirely certain that I understand your drawing for the depression that you want in the faces in two of the anvils. Consequently, I am enclosing a sketch of my interpretation. If this is not correct, please inform me.

I received a purchase order for this material from your University Purchasing Office on August 9 in which they estimated the total cost at \$700. I am sorry to report that the cost will be \$1240. If this cost is not satisfactory to you, please let us know you wish to cancel the order and there will be no problem.

With respect <sup>to</sup> your question concerning the YO-24 hydrolic oil, do not worry about the difference in color. It probably comes from the molydenun sulfide that is packed into the gasket seals.

With regard to your question concerning what I have called a ram-in-tie bar press, I constructed a very small tetrahedral model to test the idea and it worked. I began construction of a very large tetrahedral press using this design some five years ago. I have \$60,000 in this press but need another \$20,000 to finish it. Because of a shortage of funds, it is just sitting. I have complete confidence that it will perform satisfactorily when completed.

I wish you continued success in your search and send my best wishes.

Very truly yours,

mr  
Enclosure

H. T. Hall, Distinguished Professor

40094156