

The Friends of The Bancroft Library  
cordially invites you to the

Annual Christmas Exhibit

A Selection of Gifts to the Library

December 3 to 28, 1973

Hours: 9am to 5pm Monday through Friday

1 to 5pm Saturday, December 8 & 15

UNIVERSITY OF CALIFORNIA  
DEPARTMENT OF PHYSICS  
BERKELEY 4, CALIFORNIA

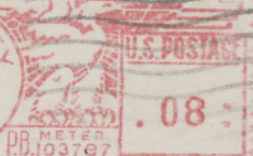
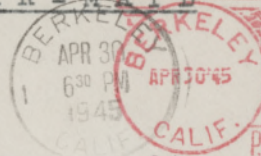


*Birge*

Professor Otto Stern  
Carnegie Institute of Technology  
Pittsburgh, Pennsylvania

UNIVERSITY OF CALIFORNIA  
DEPARTMENT OF PHYSICS  
BERKELEY 4, CALIFORNIA

~~AIR-MAIL~~

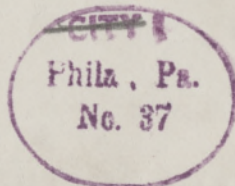


**AIR MAIL**

~~NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES~~

Dr. Otto Stern  
Carnegie Institute of Technology  
~~Philadelphia~~, Pennsylvania

**PITTSBURGH, PA.**



FACULTY CLUB  
UNIVERSITY OF CALIFORNIA

Dec. 9<sup>th</sup> 1933

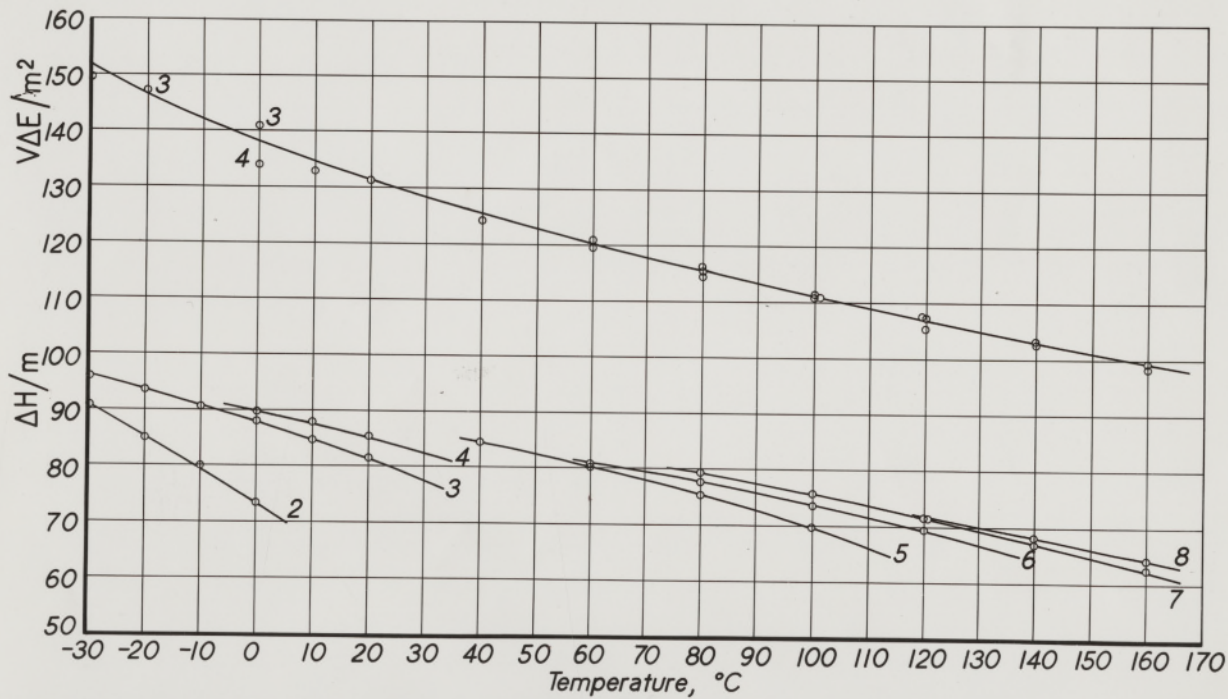
lieber Herr Stern,

Ihr Scheck über \$5 habe ich vor einigen Tagen erhalten. Sie haben gut geraten. Die Fighting Bob kosten \$4<sup>50</sup>/<sub>100</sub> und das Versenden <sup>mit Steuer</sup> 43¢, also bin ich Ihnen noch 7¢ schuldig, die ich in Form von Briefmarken diesem Briefe beilege. Es freut mich sehr, dass es Ihnen in Pittsburg gut gefällt, und tut mir nur leid, dass wir Sie nicht hier haben können. Hoffentlich kommen Sie uns jetzt bald einmal besuchen. Ihre Feriengruße

nach Kalifornien, ist schon lange fällig.

Das  $H^3$  ist bis jetzt noch nicht mit  
anderen Methoden bestätigt, doch wird  
mit Hochdruck schweres Wasser fabriziert  
und die Entscheidung wird wohl nicht  
lange auf sich warten lassen. Vom  
Radiation Lab. ist nichts neues zu berichten,  
aber viele Versuche sind im Gange und es  
wird fleissig gearbeitet.

Meiner Frau und den Kindern geht  
es gut, und sie lassen Sie auch herzlich  
grüssen, und würden sich sehr freuen Sie  
bald wiederzusehen. Wenn die Fräulein Bob  
zu Ende sind, schreiben Sie, und ich sende  
Ihnen wieder eine Kiste. Auf diese Weise  
hoffe ich ab und zu von Ihnen Nachricht  
zu erhalten. Einstweilen sende ich Ihnen  
eine Probe des Tabaks, den ich jetzt  
rauche. Er ist leicht und schmeckt Ihnen  
villleicht auch. Herzliche Grüsse, auch  
an Etermann  
Ihr, E.S. Gibson



UNIVERSITY OF CALIFORNIA

DEPARTMENT OF PHYSICS  
BERKELEY, CALIFORNIA

August 18, 1944

Professor Otto Stern  
Carnegie Institute of Technology  
Pittsburgh, Pennsylvania

Dear Professor Stern:

The question has come up as to the date at which  
you became a naturalized American citizen. I would appreciate  
it if you would send me this information.

Yours sincerely,

*Raymond T. Burge*

RTB:Y

UNIVERSITY OF CALIFORNIA  
DEPARTMENT OF CHEMISTRY  
BERKELEY

November 24, 1936

Dr. Otto Stern  
Carnegie Institute of Technology  
Pittsburgh, Pennsylvania

My dear Stern:

I would be grateful to you if you would glance over the enclosed unfinished manuscript and tell me if you see any reason why your method of calculating entropy of a solution is not also valid for the model here used.

I must secure more accurate data on dicetyl before finishing the paper, but am reasonably sure of the agreement between theory and experiment.

With best regards, and thanks for your trouble,

Sincerely yours,

*J. H. Hildebrand*  
J. H. Hildebrand



December 4, 1936

Dr. J. H. Hildebrand  
Department of Chemistry  
University of California  
Berkeley, California

My dear Hildebrand:

This is certainly a very amusing problem. I am convinced you are absolutely right with respect to your result as well as with the method of calculating.

At first, I was somewhat puzzled, because I could not see how to derive your results in the van der Waal's theory, but after some thinking I found the solution. Perhaps you will be interested to learn of my troubles and the solution. It is like this:

Imagine we have in the one-dimensional case a liquid consisting of two long molecules in equilibrium with the vapor phase. Now, if we break up one of the long molecules into three small ones, we would, at first sight, expect the vapor pressure of the long molecules to be one-half of the previous value; because the value of van der Waal's  $b$  should not be changed by this process. But according to your theory, the vapor pressure should be one-fourth. Now the solution is this: The value of the volume  $v$  changes. If we call the van der Waal's  $v - b$  the "effective volume," then this "effective volume" is proportional to the number of molecules in the liquid; so that the "effective volume" for the large molecule is four times as large and the vapor pressure four times as small.

I hope you agree with this consideration. I certainly had very much fun in playing with this nice problem.

With best regards,

Sincerely yours,

O. Stern

OS ls

June 5, 1945.

Dr. Raymond T. Berge,  
University of California,  
Department of Physics,  
Berkeley 4, California.

Dear Dr. Berge:

I found your kind letter of April 30th here waiting for me in spite of the fact that it was directed to Philadelphia and not to Pittsburgh.

Thank you very much again.

I am looking forward to seeing you in about ten days in Berkeley.

Sincerely yours

O. Stern.

OS:ewe

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF PHYSICS  
BERKELEY, CALIFORNIA

April 30, 1945

Dr. Otto Stern  
Carnegie Institute of Technology  
Philadelphia, Pennsylvania

Dear Dr. Stern:

I should like to send my sincere congratulations on your election to the National Academy of Sciences. I was not present at the meeting myself but I have just seen Professor Latimer, who was present at the meeting, and he told me of your successful election.

As you may know, I have been chairman of the Physics Section and, as such, I should have been present at the meeting to take care of the interests of the nominees of the Physics Section. It did not, however, seem advisable to go East under the present war conditions, and I therefore asked Professor Van Vleck to act for me. I have not yet heard from him, but, as I have said, I have now seen Professor Latimer and have been assured of your election.

All members of the Academy of course know ahead of time those that are being proposed, but since only a portion of those proposed are finally elected, one always likes to be quite sure before sending out congratulations. As I believe you also know, it is necessary to be an American citizen in order to be eligible for membership in the Academy. Hence it is only recently that you have been eligible for such membership. Dr. Fermi was also elected and we are thus adding two more Nobel Prize winners to the eight who are already members of the Physics Section. That means ten Nobel Prize winners out of a total membership of 45 in the Physics Section.

I trust that after the war is over and there is more time to think about pure physics, it will be possible for me to come East more frequently to attend meetings of the Academy, and I hope to see you at such meetings even if you should not come West. In the meantime, I wish again to congratulate you on this well deserved honor.

Yours sincerely,

*Raymond T. Bergi*

RTB:Y