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DEPARTMENT OF PHYSICS

ASF - Pavia

COLUMBIA RADIATION LABORATORY
538 WEST 120TH STREET
NEW YORK 27, N. Y.

December 12, 1947

Dr. L. Giulotto
Istituto di Fisica "A. Volta"
Universita di Pavia
Pavia, Italia

Dear Dr. Giulotto:

Thank you for your note of 20/11/47 and for the reprints of your spectroscopic work on hydrogen alpha. I am enclosing a copy of our paper of August 1, and in addition some pages from an earlier report of our laboratory which contain some supplementary information. We had one rather good run with heavy hydrogen and found a resonance curve almost identical with that for light hydrogen, so that the cause of the 1000 m.c. shift is probably to be looked for outside of the nucleus (See Bethe, Phys. Rev., Aug. 15, '47) Mack and Austern in Phys. Rev. Nov. 15, '47 announce similar shifts in singly ionized helium. Their work was done with a liquid air cooled hollow cathode source. They are however also working on atomic beam sources.

We have just about finished construction of a much improved apparatus (more homogeneous magnetic field, separate pumping of electron gun chamber and detector chamber, etc.) and no more complete paper is likely to be written until we have some much better data. We are also beginning work on a similar

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apparatus for study of singly ionized helium.

I will send you reprints of any future work on this subject.

Yours sincerely,

Willis E. Lamb, Jr.

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