



The University of Western Ontario, London, Canada

Faculty of Science
Department of Geophysics

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Dr. H. T. Hall,
Distinguished Professor,
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Dear Tracy:

I have thought that with overhaul of the little press I should like very much to have its pressure gauge changed into a large dial Heyse gauge. If it is not too much trouble and you have one available, could you do this? I shall pay for the gauge, of course. I wonder whether you have found one or more of the heavy retraction springs broken?

For the past two months we have been using the 1" anvils. Changing the anvils, if done only occasionally, is not too laborious, and I have, for the moment, given up any plans of having the special hoist installed.

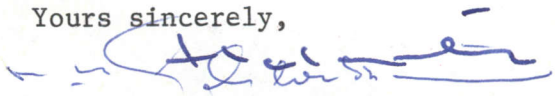
One insert has suffered from a minute spalling fracture, but I continue using it. Calibrations carried out on solid cubes with 1/16" bores containing Bi indicate that the p.s.i./Kbar conversion follows almost exactly the same curve as that for the 5/8" cube in the small press.

Although small pressure increments play an important part in our studies, I am sorry to say that the air pump has been idle for most of the time, just because without an 80 p.s.i. air line the procedure of driving it with a gas cylinder or compressor is somewhat clumsy. There has been continued oil loss from some of the guide pins, but not profusely and not more, I should say, than when you saw it.

Ferroelectric hysteresis loops are obtainable with the larger cubes too. Moreover, the larger cell volumes are of particular advantage in our thermal studies. At the same time, when using powders, it would seem that there is more room for blow-outs now. The graphite heaters in the 1 1/2" tubes gives a maximum temperature of 1200 - 1300°C when filled with insulating materials and when capped with graphite lids against the current rings.

With best wishes for 1975.

Yours sincerely,


H. H. Schloessin
Associate Professor