(as the chance of catching you seemed small) but looked up Joly at College and saw his most cute melting point investigator

Yours faithfully

J Brown

Belair

15/26 June 14th 891

My dear Geroge

I send a copy of paper in Phil Mag. in my last The cell I mentioned is one of several devised to try & clear up the difficulty mentioned in connexion with Mg in aqueous solutions on p 462 foot note

To get rid of water I try fused chlorides

In reply to your batch of queries the cell was merely tested on electrometer & Mg+ remains steady of

temperature steady & falls with decrease of temper.
The two fused chlorides were separated by a sand partition in V tube but the Mg may have diffused somewhat into $MgCl_2$ $MnCl_2$ into $MnCl$ — If the reverse of this occurs the E.M.F. sunk to 0 or near it probably zinc reduces or Al.
The Al is positive plate & the E.M.F. thus agrees in sense with theory from heats of combⁿ with chlorine. I do not think it likely that oxide on Al. has an effect, though in Wright & Th. expts this made temp. in wrong direction — in reg. vol.

Zinc & Magnesium in fused $ZnCl_2$ gave abt .9 D.
15/26
and
$Zn \mid ZnCl_2 \mid MgCl_2\ NaCl \mid Mg$
Gave about 1.14
(Theory 1.08) — But some thing happened after my first reading of this expt & it needs confirming.
I used the double chlorides because of their lower melting points. I intend trying a few modifications of this kind of cell to eliminate aqueous action. There would seem so far to be some kind of thermo effect superadded to chem. heat of combⁿ effect
I was sorry not to see you that day I called. I did not go to Technical school