

Table II

	Expt'l	Theory (based on experimental a_o)	Theory (Born Repulsive term included)
B_o^T	77 kb*	82.36 kb	87.06 kb
$B_o^{T'}$	3.904**	3.926	4.096
$B_o^{T''}$	-0.0696kb ⁻¹ **	-0.0461 kb ⁻¹	-0.0441kb ⁻¹

* extrapolated 0°K value

** 195°K value

If, instead, we use the following two conditions

$$P=0 = - \frac{1}{4\pi r_s^2} \frac{dE}{dr_s}$$

$$B_o = \frac{1}{12\pi r_s} \frac{d^2E}{dr_s^2}$$

and the extrapolated 0°K value of B_o to determine the value of r_c and the equilibrium value of r_s , we obtain $r_s=4.038$, $r_c=2.047$. Again using eq. (4) and (5) to calculate B_o , B_o' and B_o'' , we obtain the results shown in Table III.

In the previous calculation the Born repulsive energy due to ion-ion overlap was not considered. It would be interesting to see the effect of adding this term to the total energy. A Huggins-Mayer type expression for the Born repulsive energy