

MELTING OF IODINE AND BROMINE UNDER PRESSURE

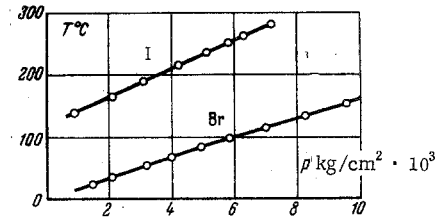
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We have investigated the dependence of the melting points  $T_m$  of iodine and bromine on pressure. The melting curve for bromine was obtained in the range of pressures  $p$  from 1400 to 9600  $\text{kg}/\text{cm}^2$ , and that for iodine in the range from 1000 to 6200  $\text{kg}/\text{cm}^2$ . The measurements were made using the apparatus and technique previously described in [1]. The only difference was that, in view of the considerable reactivity of the substances investigated, the cover of the vessel used to contain them was made of stainless steel.

measurement error was not greater than  $\pm 0.5^\circ$ . The bromine and iodine used in the experiments were of analytical grade.

$p \cdot 10^3, \text{ kg}/\text{cm}^2$	$T_m, ^\circ$	
	Br	I
1	14.0	140.0
2	32.5	164.6
3	50.0	188.5
4	67.5	211.7
5	83.5	233.3
6	99.0	255.3
7	114.0	276.8
8	128.5	
9	142.8	
10	157.0	



It should be noted that the literature is devoid of data on the melting point of these substances under pressure.

REFERENCE

1. I. E. Paukov and E. Yu. Tonkov, "The Melting Curve of Sulfur up to 11 006  $\text{kg}/\text{cm}^2$ ," PMTF (Journal of Applied Mechanical and Technical Physics), no. 4, 1965.

The figure gives the melting curves for iodine and bromine, while the table presents values of the melting point as a function of pressure as obtained from the smoothed curves. The deviations of the experimental points from the graphically smoothed curve are, on the average,  $\pm 0.7^\circ$  for bromine and  $\pm 0.5^\circ$  for iodine. The

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