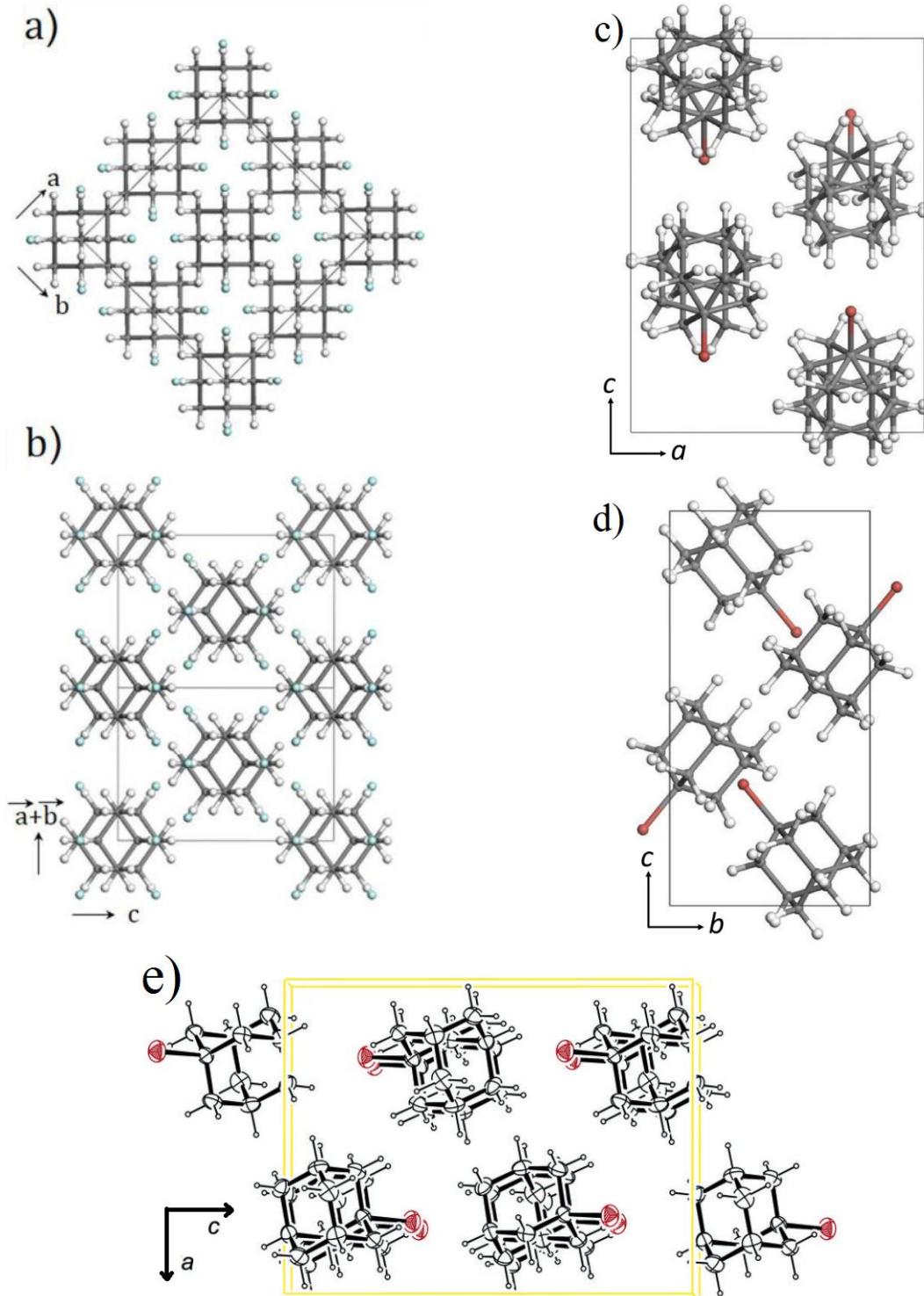
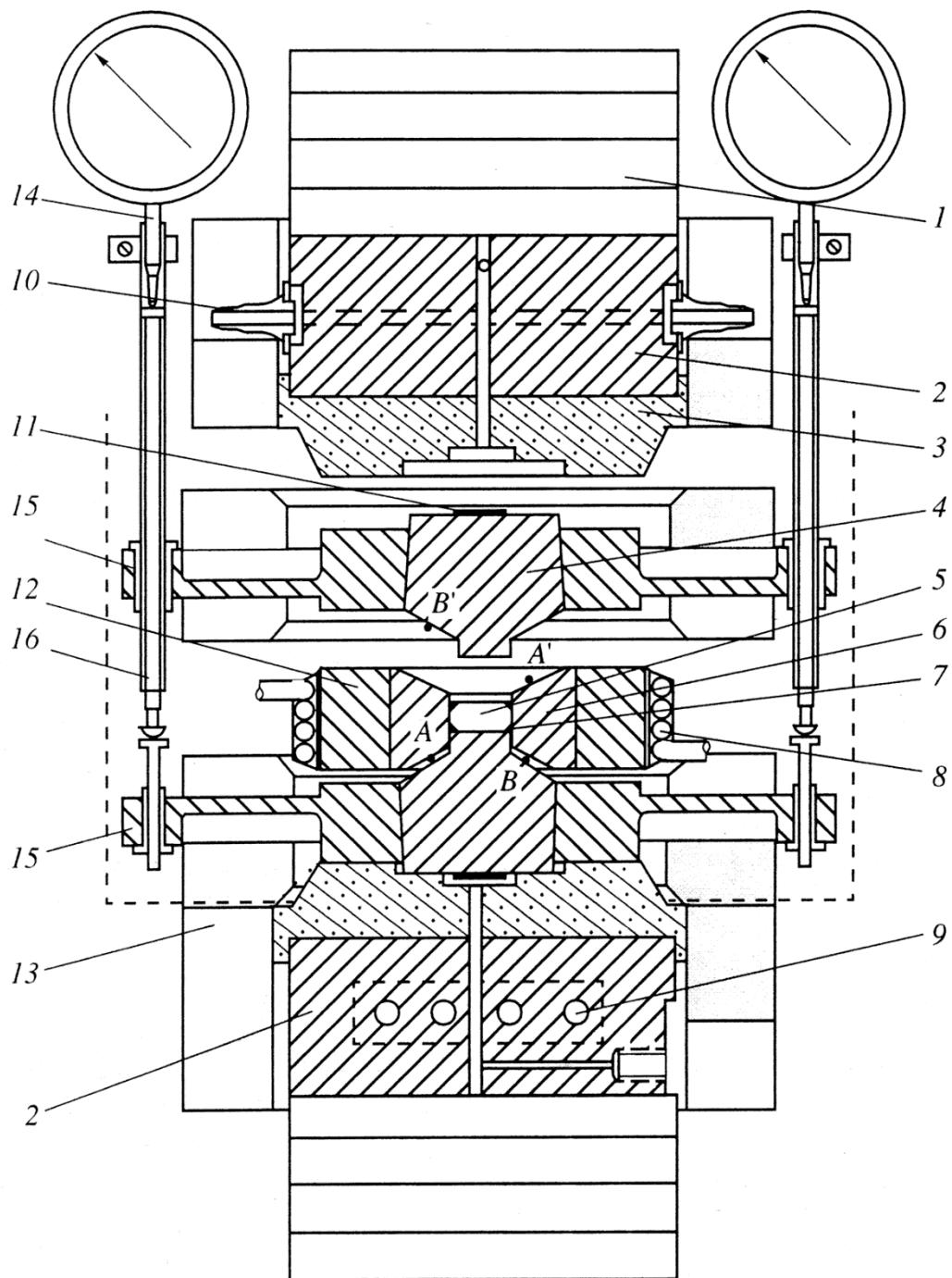


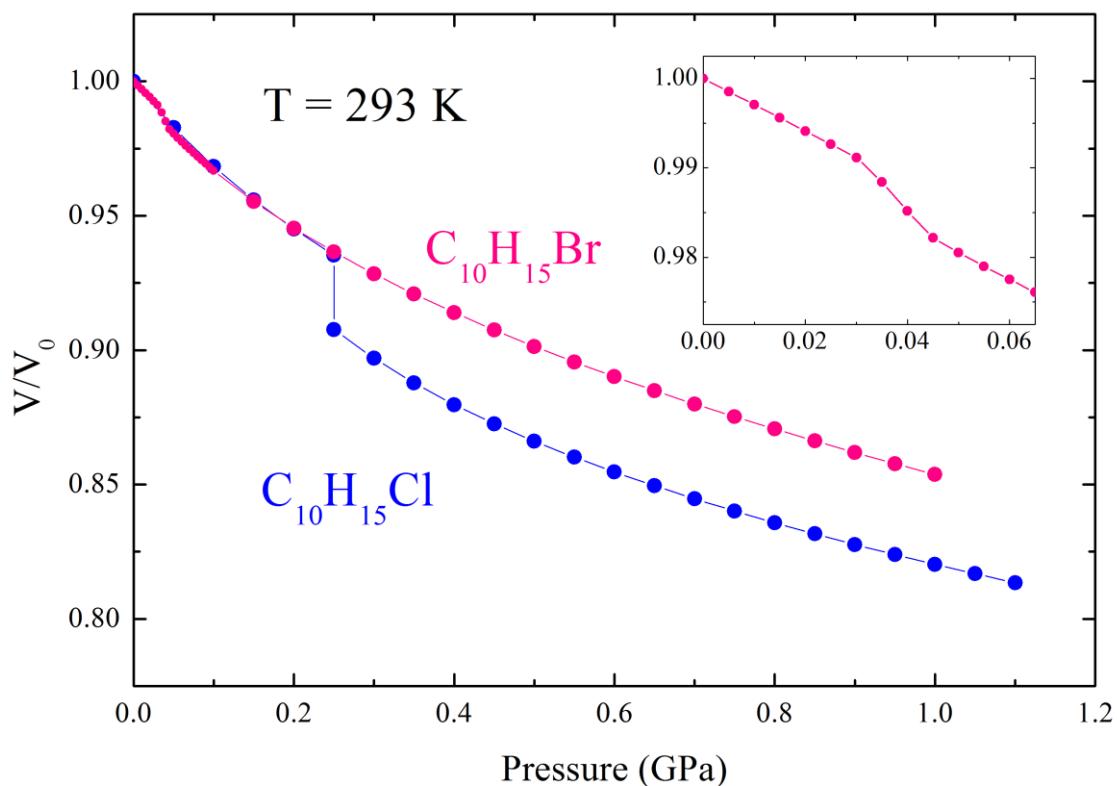
Electronic Supplementary Information



**Fig. 1S** Crystal structures of 1-Bromoadamantane. a,b) Phase I (FCC) at 295 K (a) along  $c$  and (b) along  $a+b$ . Blue atoms correspond to the Bromine atom within their eight sites of fractional occupancies 0.125 for cubic phase (I). Reproduced from Ref. 1 with permission from the PCCP Owner Societies. c,d) Orthorhombic unit cell of 1-Br-Ada, projected onto (c) the (010) and (d) the (100) planes. Red, gray and white stands for Br, C and H atoms, respectively. Reproduced from Ref. 2 with permission from the Elsevier. e) Monoclinic unit cell of 1-Br-Ada, viewed along [010]. Reproduced from Ref. 3 with permission from the IUCr.



**Fig. 2S** Schematic diagram of a low temperature ultrasonic piezometer.<sup>4</sup> 1 - heat-insulating block; 2 - supports; 3 - bearing plates; 4 - sound-conducting piston; 5 - sample; 6 - die; 7 - seal ring; 8 - die cooler; 9 - cylindrical cooling channels; 10 - sleeves; 11 - piezo transducers; 12 - holder; 13 - thermal insulation (foam); 14 - displacement sensors; 15 - arm; 16 - stainless steel tubes; A, A', B, B' - thermocouple placement points.



**Fig. 3S.** Pressure dependence of the relative volume at isothermal (T=293 K) compression. Relative pressure measurement error is 2%.

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