

Supporting Information

Structural transformation of confined iodine in the elliptical channels of $\text{AlPO}_4\text{-11}$ crystals under high pressure

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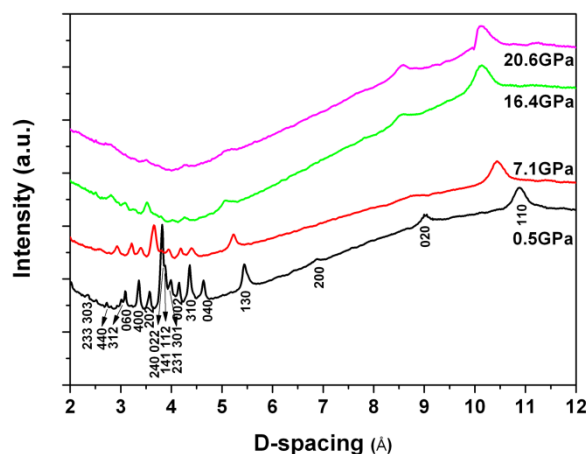
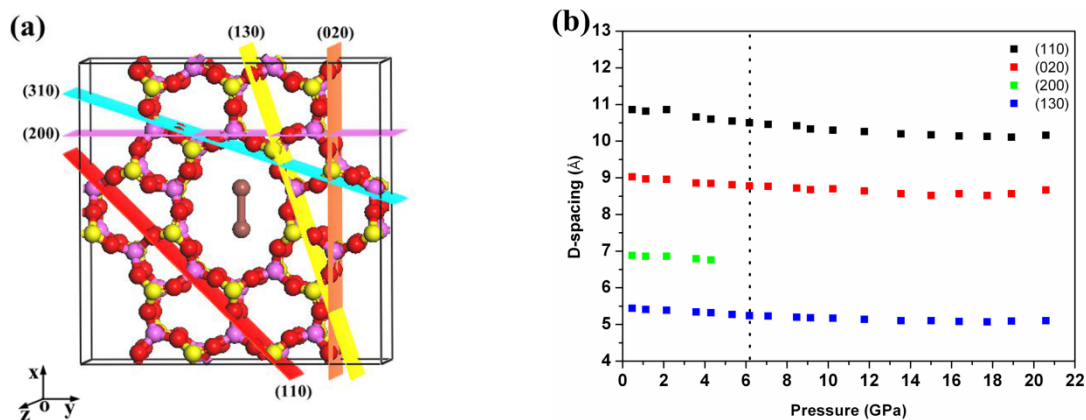


Fig. S1 Pressure dependence of the X-ray powder diffraction patterns of I@AEL crystals up to 20.6 GPa.



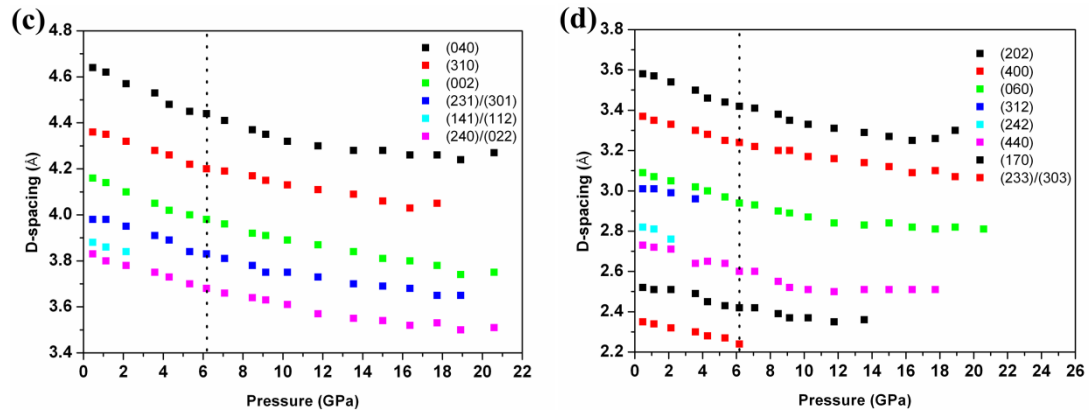


Fig. S2 (a) Schematic view of elliptical cross-section of AEL framework. (b) (c) (d) Pressure dependences of d-spacing of crystallographic plane for I@AEL.

Table. SI The pressure coefficients of d-spacing of crystallographic plane of I@AEL in different pressure ranges.

plane pressure	(110)	(020)	(200)	(130)	(040)	(310)	(002)	(231)/ (301)	(141)/ (112)
<6GPa	-0.066	-0.043	-0.031	-0.034	-0.037	-0.033	-0.033	-0.029	-0.024
>6GPa	-0.031	-0.025		-0.015	-0.014	-0.016	-0.016	-0.014	

plane pressure	(240)/ (022)	(202)	(400)	(060)	(312)	(242)	(440)	(170)	(233)/ (303)
<6GPa	-0.025	-0.030	-0.023	-0.025	-0.017	-0.037	-0.022	-0.019	-0.018
>6GPa	-0.014	-0.017	-0.013	-0.010			-0.007	-0.010	