Supporting Information

Pressure effects on optical properties of Zinc-based 0D Hybrid Halides

Yuan Fu,[a] Guoliang Xiao,[a] Xihan Yu,[a] Dianlong Zhao, [*b] Guanjun Xiao[*a,c]

[a].State Key Laboratory of High Pressure and Superhard Materials, College of Physics, Jilin University, Changchun 130012.

[b].Key Laboratory of New Energy and Rare Earth Resource Utilization of State Ethnic Affairs Commission, School of Physics and Materials Engineering, Dalian Minzu University, Dalian, 116600, China.

[c].Department of Physics, Yanbian University, Yanji, 133002, China.

Corresponding authors: zhaodl@dlnu.edu.cn; xguanjun@jlu.edu.cn;

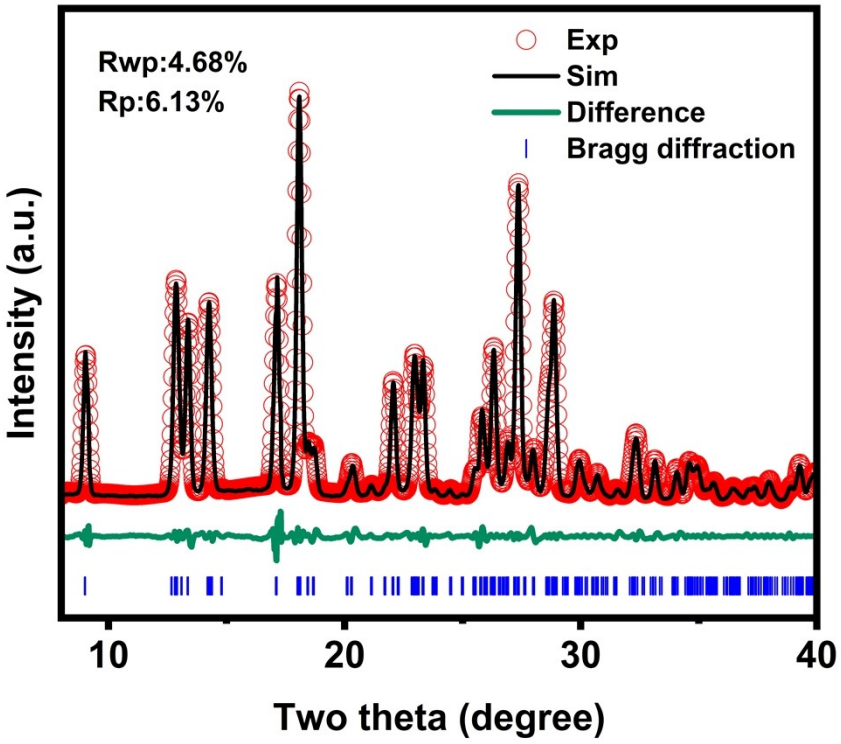

Fig. S1 Xrd of $ZnCl_2$-BZT.

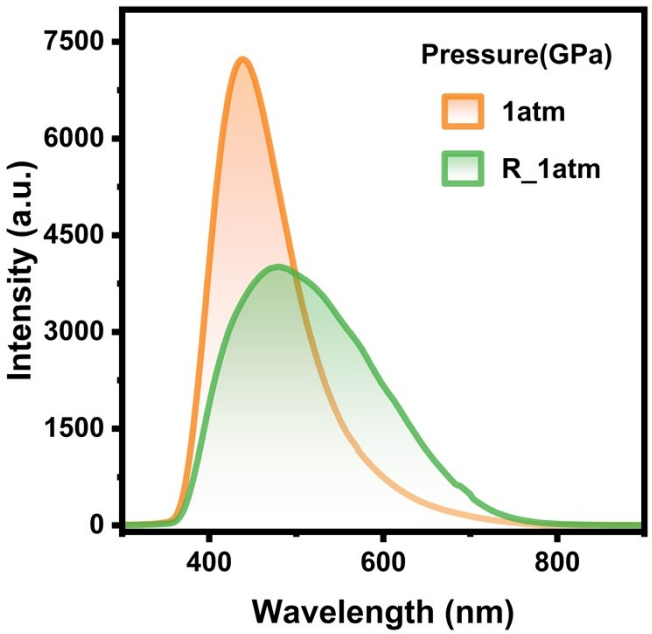

Fig. S2 The comparation before and after high-pressure treatment of $ZnCl_2$-CBZT PL spectra.

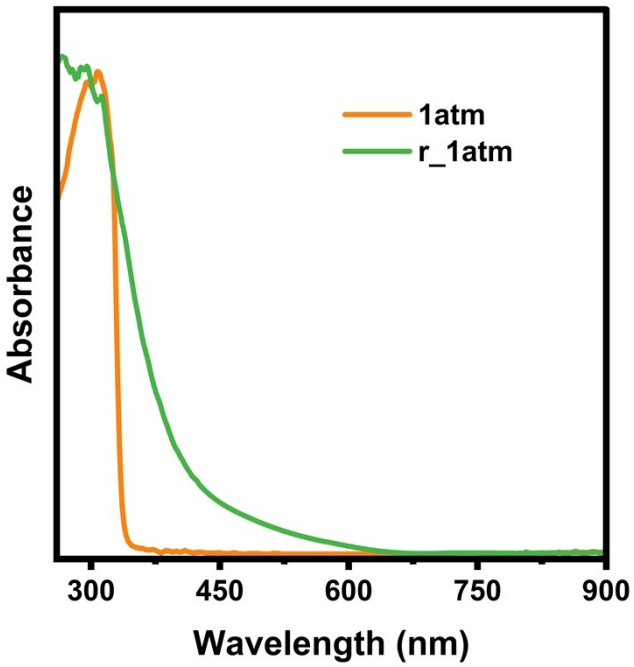

Fig. S3 UV-Vis absorption spectra of $ZnCl_2$-BZT before and after high pressure treatment.

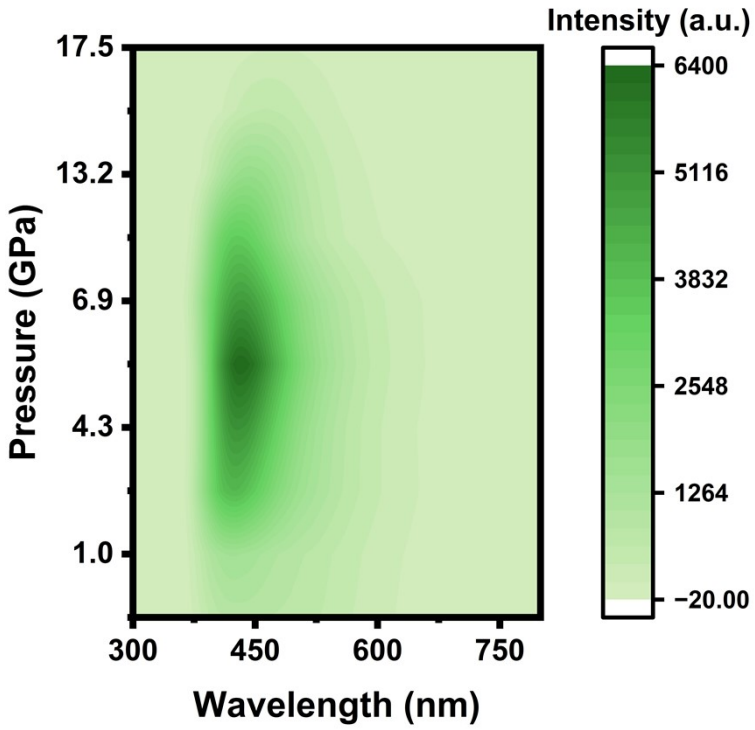

Fig .S4 PL spectra of $ZnCl_2$-BZT under high pressure (17.5 GPa).

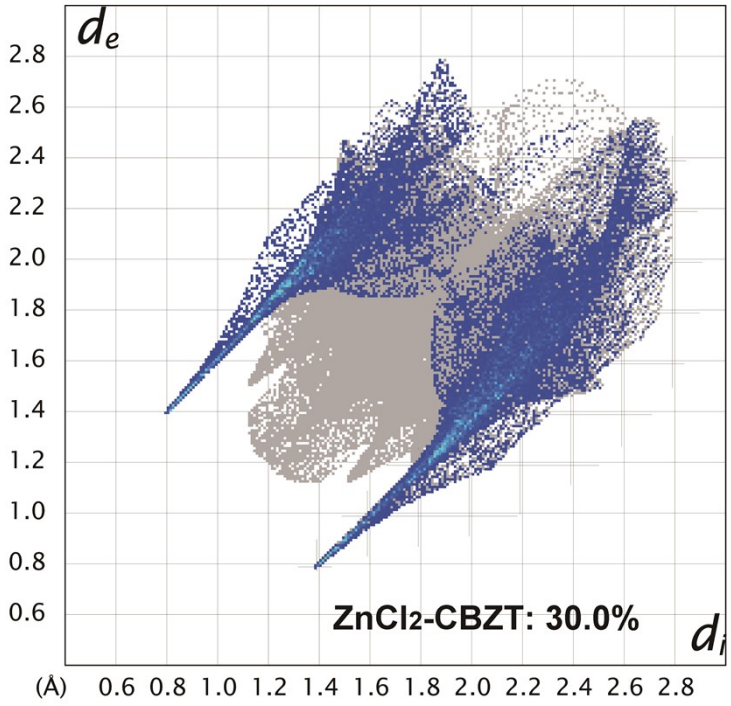

Fig .S5 The Fingerprint plot of $ZnCl_2$-CBZT at 1atm.

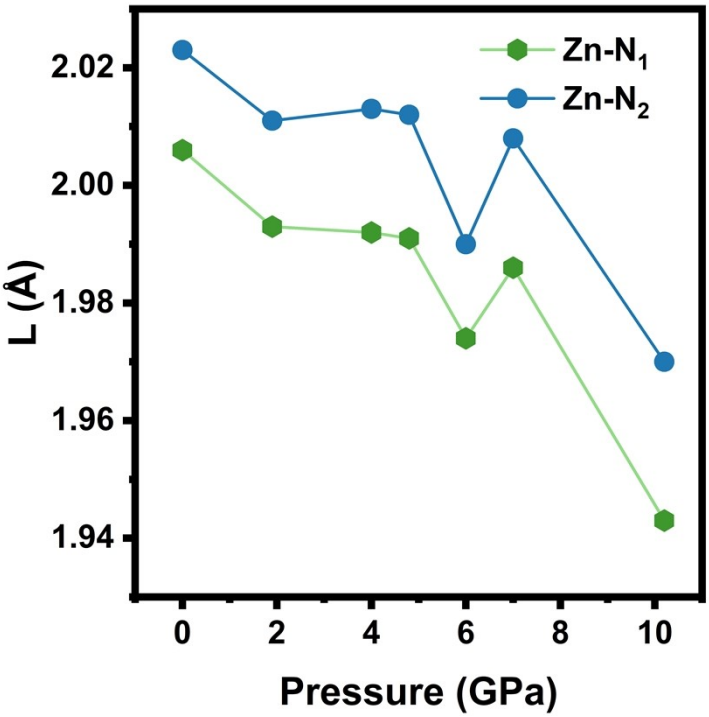

Fig .S6 Bond length of Zn-N under high pressure.

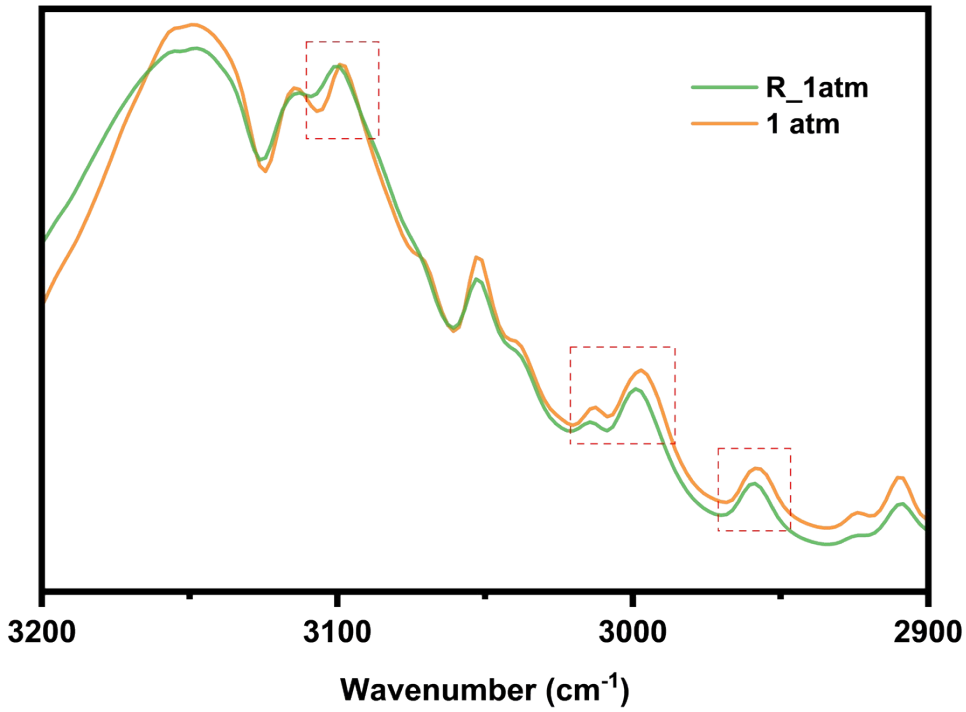

Fig .S7 The blue shift of the N–H bond observed in the infrared spectrum after pressure release.

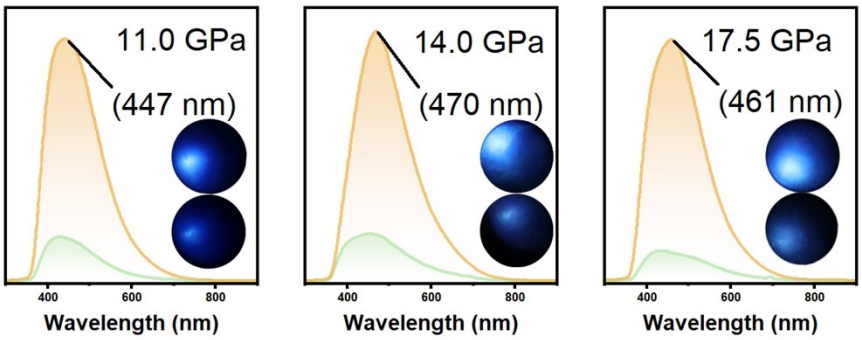

Fig .S8 PL spectra harvest of $ZnCl_2$-BZT under diffenent pressure.

Table S1. Distance between the Cl atom and the N atom of the organic moiety before and after high pressure treatment.

	N1-Cl1 (Å)	N1-Cl2 (Å)	N2-Cl1 (Å)	N2-Cl2 (Å)
1atm	**3.389**	**3.475**	**3.567**	**3.411**
R-1atm	**3.357**	**3.452**	**3.529**	**3.360**