

Ultrafast Self-powered CsPbCl₃ Ultraviolet Photodetectors with Choline Chloride for Surface Passivation and Charge Transport Regulation

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Table S1 The binding energy analysis and atomic concentration of the elements of the non-modified and ChCl-modified CsPbCl₃ perovskite films.

Orbital \ Sample	CsPbCl ₃ Binding energy (eV)	Atomic concentration (%)	ChCl-modified CsPbCl ₃ Binding energy (eV)	Atomic concentration (%)
Cs 3d _{5/2}	724.36	21.58%	724.09	19.70%
Cs 3d _{3/2}	738.32		738.05	
Pb 4f _{7/2}	138.08	18.01%	137.54	16.98%
Pb 4f _{5/2}	142.93		142.38	
Cl 2p _{3/2}	197.98	42.16%	197.73	41.73%
Cl 2p _{1/2}	199.58		199.33	

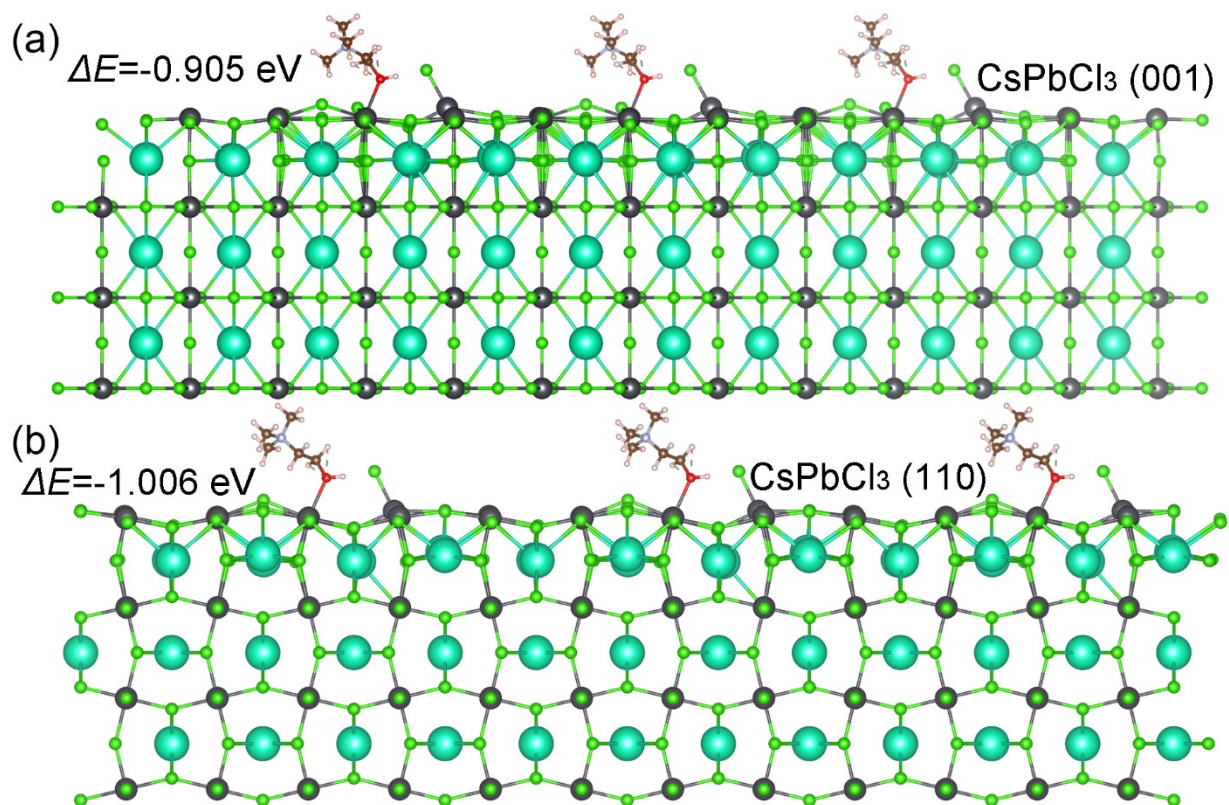


Fig. S1 The as-calculated interfacial binding energy of the (a) CsPbCl₃ (001)/ChCl and (b) CsPbCl₃ (110)/ChCl interfaces.

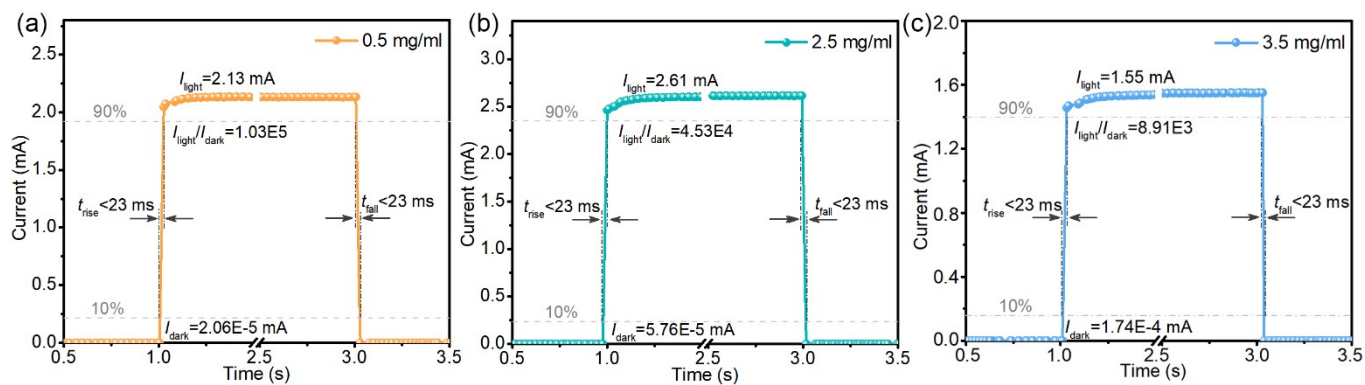


Fig. S2 Detailed I_{ph} - t curves of the photodetectors with (a) 0.5 mg/ml, (b) 2.5 mg/ml and (c) 3.5 mg/ml ChCl-modified $CsPbCl_3$ films.