

## Electronic Supplementary Information

### **In- and Ga-based Inorganic Double Perovskites with Direct Bandgaps for Photovoltaic Applications**

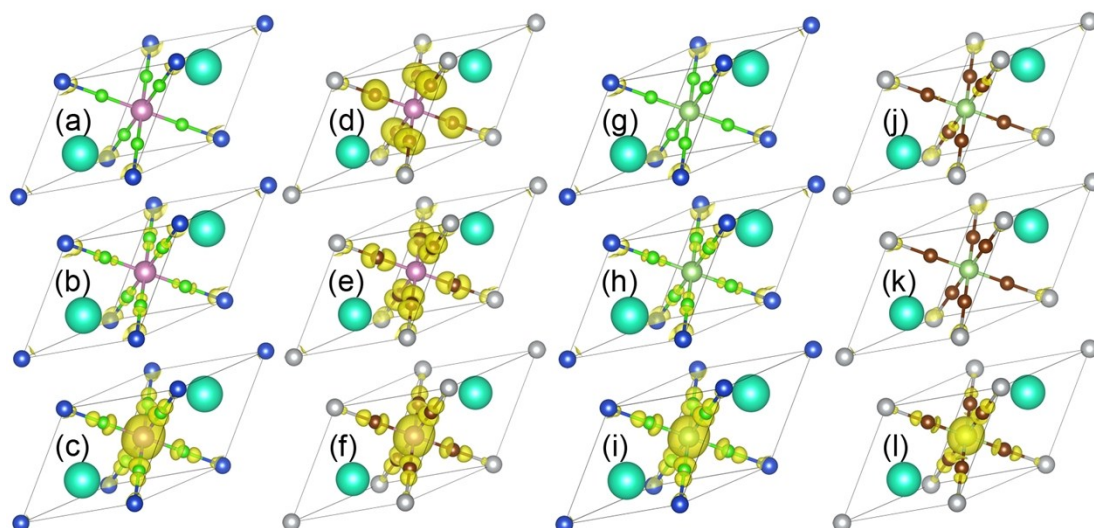
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The key parameters used for the HSE06 computation are: HFSCREEN = 0.2 (the range-separation parameter in range separated hybrid functionals), AEEX=0.25 (the fraction of exact exchange in a Hartree-Fock/DFT hybrid functional type calculation), and AGGAX=0.75 (the fraction of gradient corrections to the exchange in a Hartree-Fock/DFT hybrid functional type calculation).



**Figure S1.** Iso-surface plot of the band-decomposed charge density of (a-c)  $\text{Cs}_2\text{CuInCl}_6$ ,  $\text{Cs}_2\text{AgInBr}_6$  (d-f),  $\text{Cs}_2\text{CuGaCl}_6$  (g-i) and  $\text{Cs}_2\text{AgGaBr}_6$ (j-l); in each column, from top to down is the light hole band, heavy hole band and the lowest conduction band.