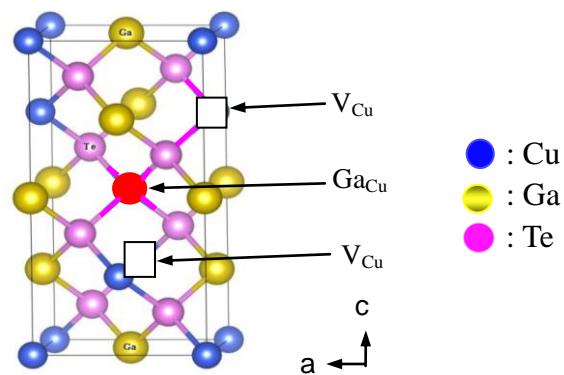


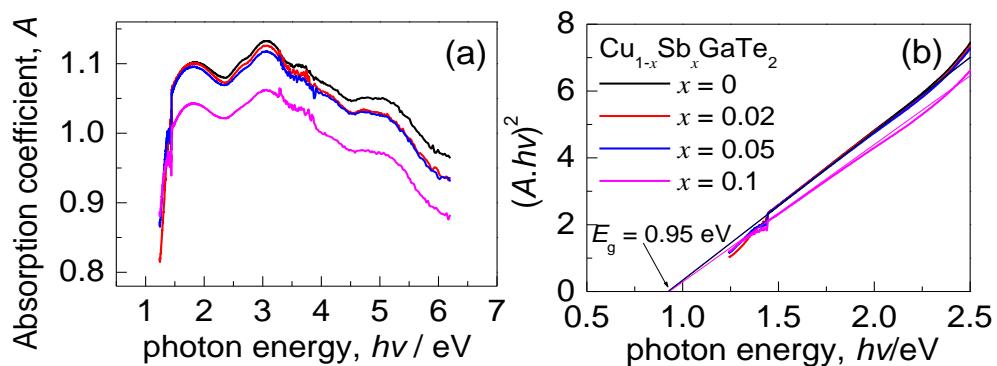
† Electronic Supplementary Information (ESI) available:

Supplementary Fig.1 Crystal structure of the defect chalcopyrite compound CuGaTe<sub>2</sub>

Supplementary Fig.2 (a) The absorption coefficient spectra  $A(h\nu)$ ,  $A$  is the absorption coefficient; (b) Experimentally determined bandgaps  $E_g$  (0.95 eV).



(Supplementary Figure 1)



Supplementary Figure 2