

**Electronic Supplementary Information for**  
**“One-step synthesis of Cu-doped  $\text{Pb}_{10}(\text{PO}_4)_6\text{Cl}_2$  apatite: A**  
**wide-gap semiconductor”**

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† Electronic Supplementary Information (ESI) available.

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# 1. EDX elemental mappings for the $\text{Pb}_{10}(\text{PO}_4)_6\text{Cu}_x\text{Cl}_2$ samples with $0 \leq x \leq 1.0$

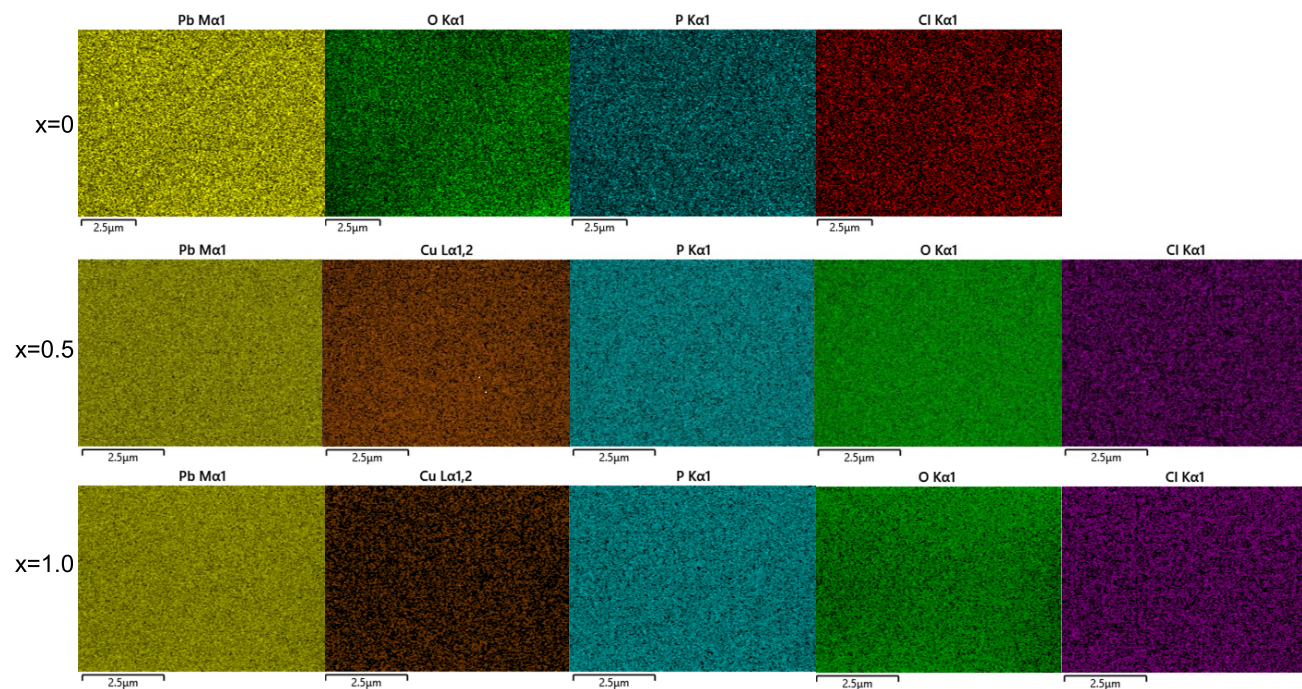


FIG. 1: EDX elemental maps of Pb, Cu, P, O, and Cl for the  $\text{Pb}_{10}(\text{PO}_4)_6\text{Cu}_x\text{Cl}_2$  samples.