

Supporting Information:

**Out of stoichiometry CuCrO<sub>2</sub> films as promising p-type TCO for transparent electronics**

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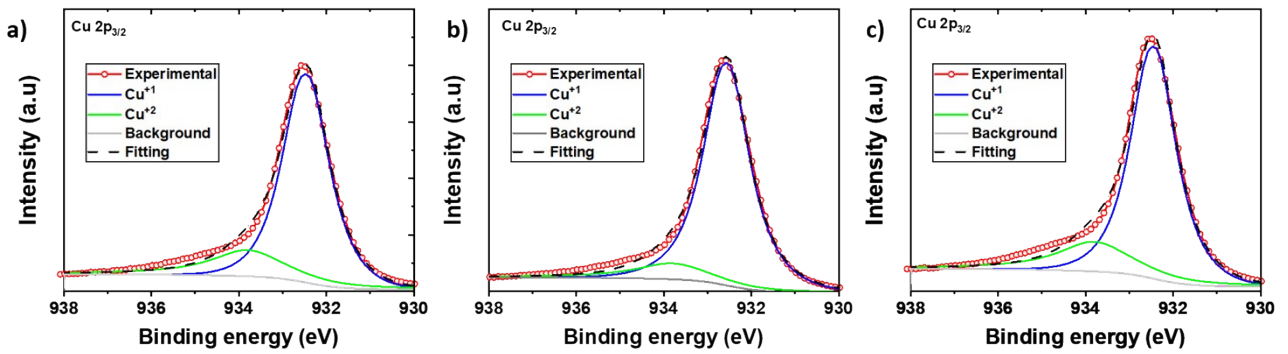


Figure S1. Cu  $2p_{3/2}$  experimental peak and its fitting for a) Cu-rich  $\text{CuCrO}_2$ :59%, b) Cu-rich  $\text{CuCrO}_2$ :65% and c)  $\text{Cu}_2\text{O}+\text{CuCrO}_2$ :73%.

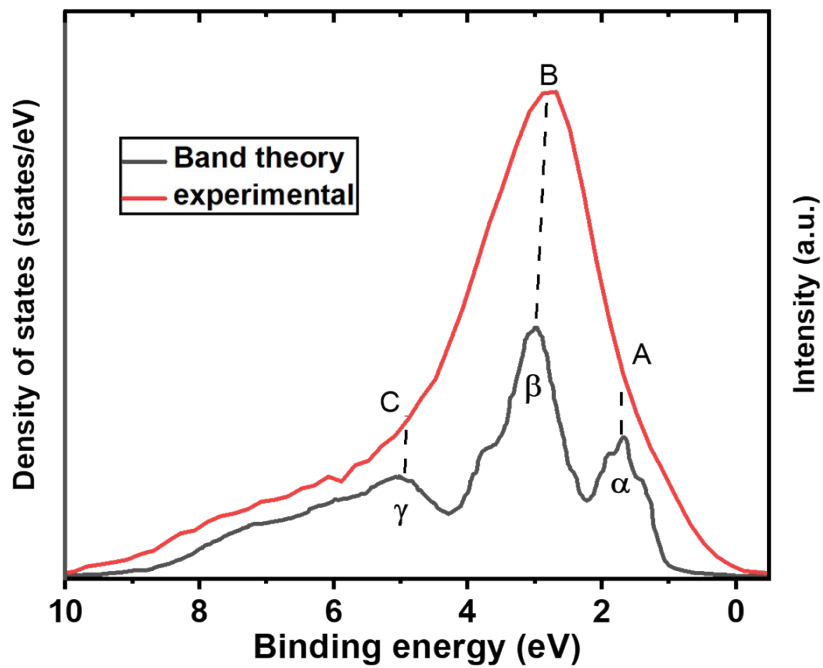


Figure S2. Comparison between the theoretical density of states of  $\text{CuCrO}_2$ , adapted by Yokobori *et al.*<sup>1</sup>, and the valence band spectra of Cu-rich  $\text{CuCrO}_2$  with  $\text{Cu}/(\text{Cu}+\text{Cr})=65\%$ . The energy zero was set to the Fermi level.

1. Yokobori, T. *et al.* Electronic structure of the hole-doped delafossite oxides  $\text{CuCr}_{1-x}\text{Mg}_x\text{O}_2$ . *Phys. Rev. B - Condens. Matter Mater. Phys.* **87**, (2013).

