High-Performance p-Type Transparent Conducting CuI-Cu₂O Thin Films with Enhanced Hole Mobility, Surface, and Stability

Ruibin Xue,^a Gang Gao,* ^a Lei Yang,^b Liangge Xu,^a Yumin Zhang,* ^a and Jiaqi
Zhu^{a,c,d}

^a National Key Laboratory of Science and Technology on Advanced Composites in Special Environments, Harbin Institute of Technology, Harbin 150080, P. R. China

^b Center of Analysis Measurement, Harbin Institute of Technology, Harbin 150001, P.

R. China

^c Zhengzhou Research Institute, Harbin Institute of Technology, Zhengzhou 450046,

P. R. China

^d Key Laboratory of Micro-systems and Micro-structures Manufacturing Ministry of Education, Harbin Institute of Technology, Harbin 150080, P. R. China

*Corresponding authors, E-mail addresses: gaogang@hit.edu.cn (Gang Gao),
zhym@hit.edu.cn (Yumin Zhang)

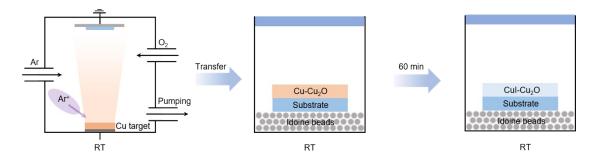


Figure S1. Schematic diagram of the CuI-Cu₂O films deposition process.

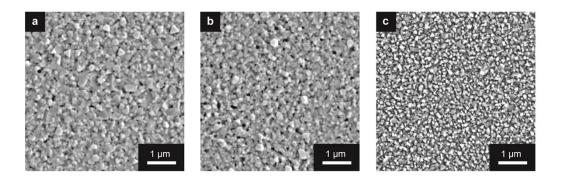


Figure S2. SEM images of the CuI–Cu₂O films after ageing for 6 months under ambient condition with O_2 flow rate of (a) 0 sccm, (b) 0.10 sccm and (c) 0.20 sccm.