

Supplementary Information

Precursor Engineering for High-quality Cs₂AgBiBr₆ Films toward Efficient Lead-Free Double Perovskite Solar Cells

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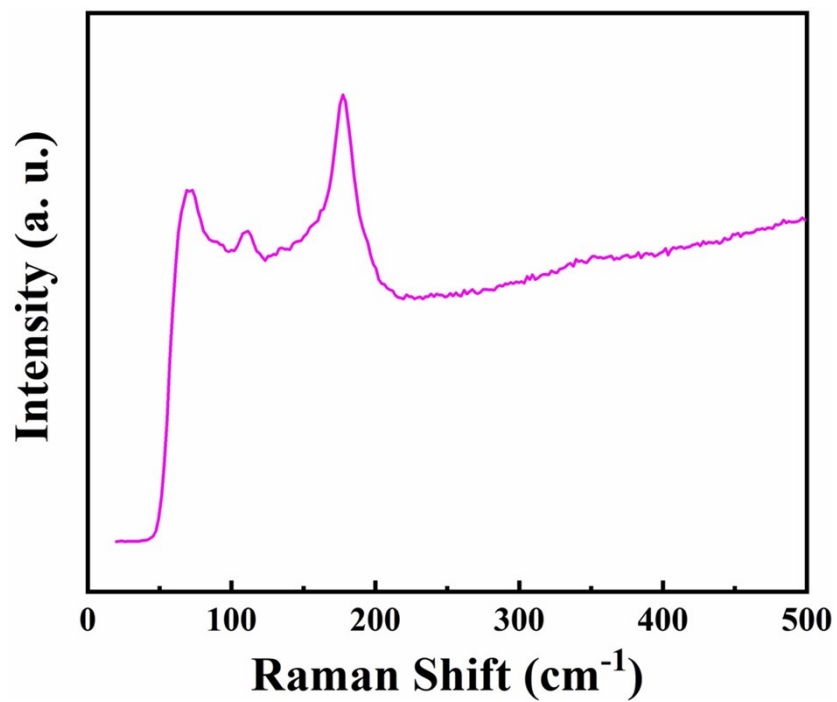


Fig. S1 Raman spectrum of the optimized Cs₂AgBiBr₆ thin films with BiBr₃(DMSO)₂adducts.

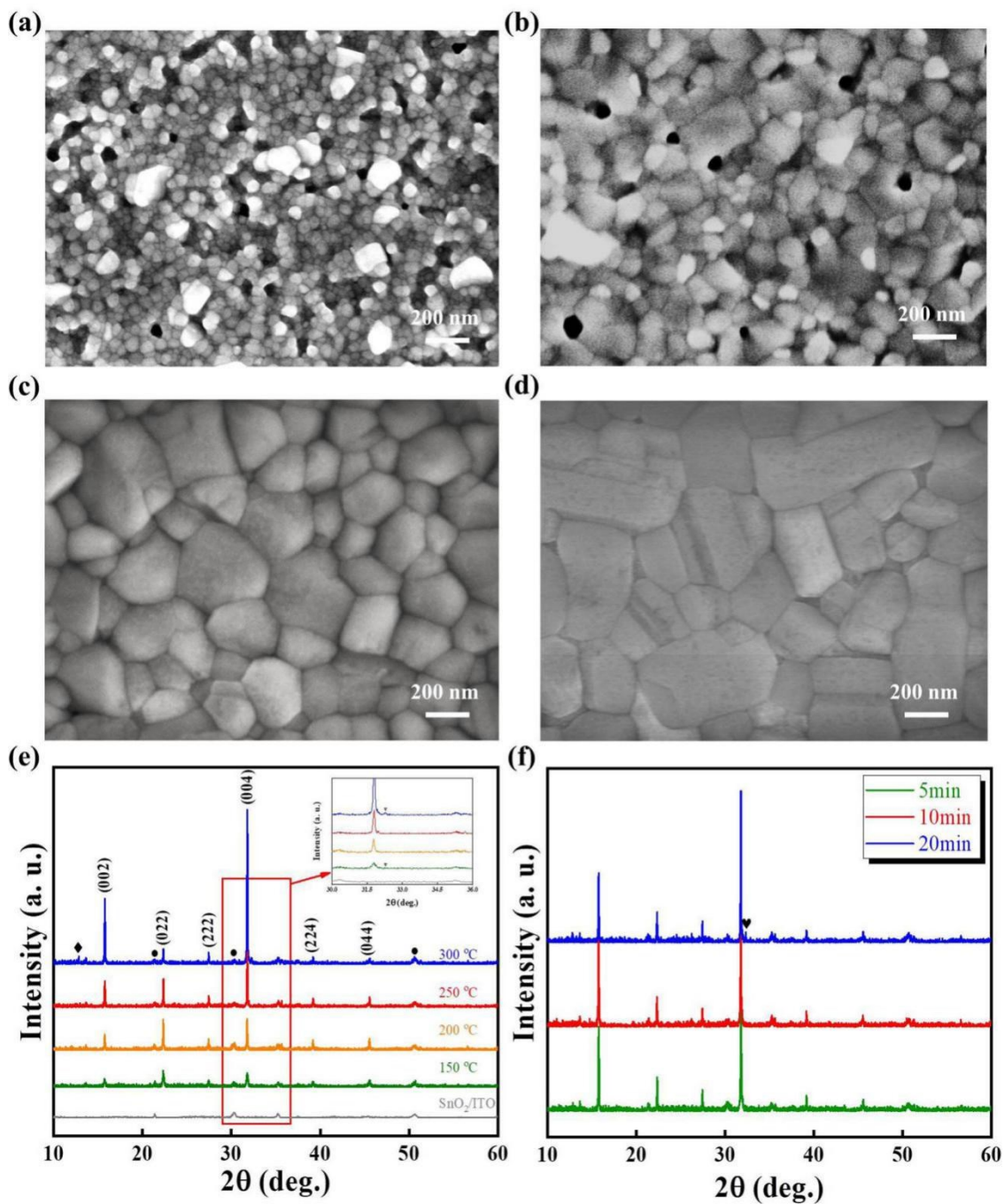


Fig. S2 (a)-(d) SEM images of freshly-coated Cs₂AgBiBr₆ films prepared via BiBr₃(DMSO)₂ under different annealing temperatures. (a) 150 °C (b) 200 °C (c) 250 °C and (d) 300 °C. and XRD spectra of Cs₂AgBiBr₆ films prepared (e) under different annealing temperature and (f) different annealing time. The asterisk (*) indicates the position of reflections from the substrates.

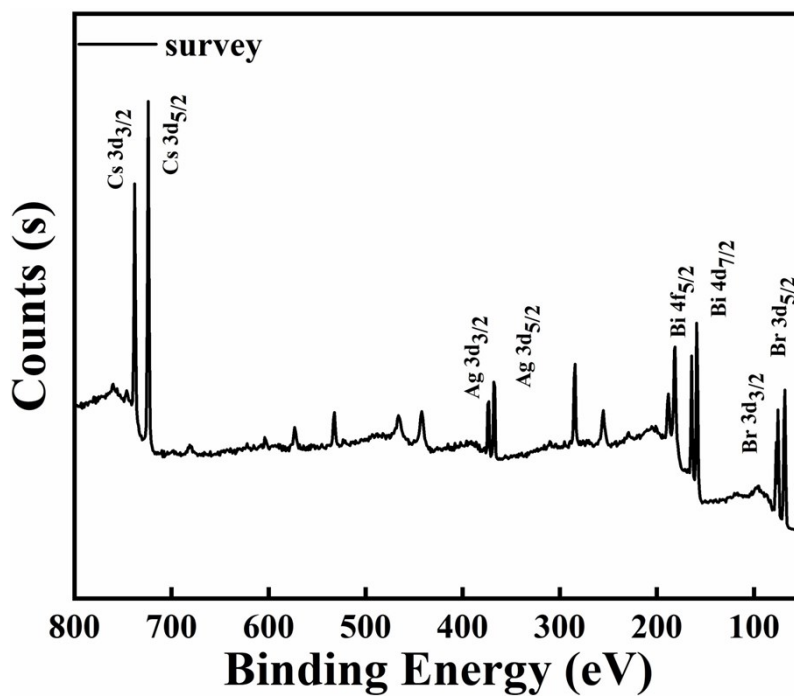


Fig. S3 XPS survey spectra of Cs₂AgBiBr₆ film with DMSO adduct.