

**Electronic Supplementary Information for:**

**An 8.7% efficiency co-electrodeposited Cu<sub>2</sub>ZnSnS<sub>4</sub> photovoltaic device  
fabricated via a pressurized post-sulfurization process**

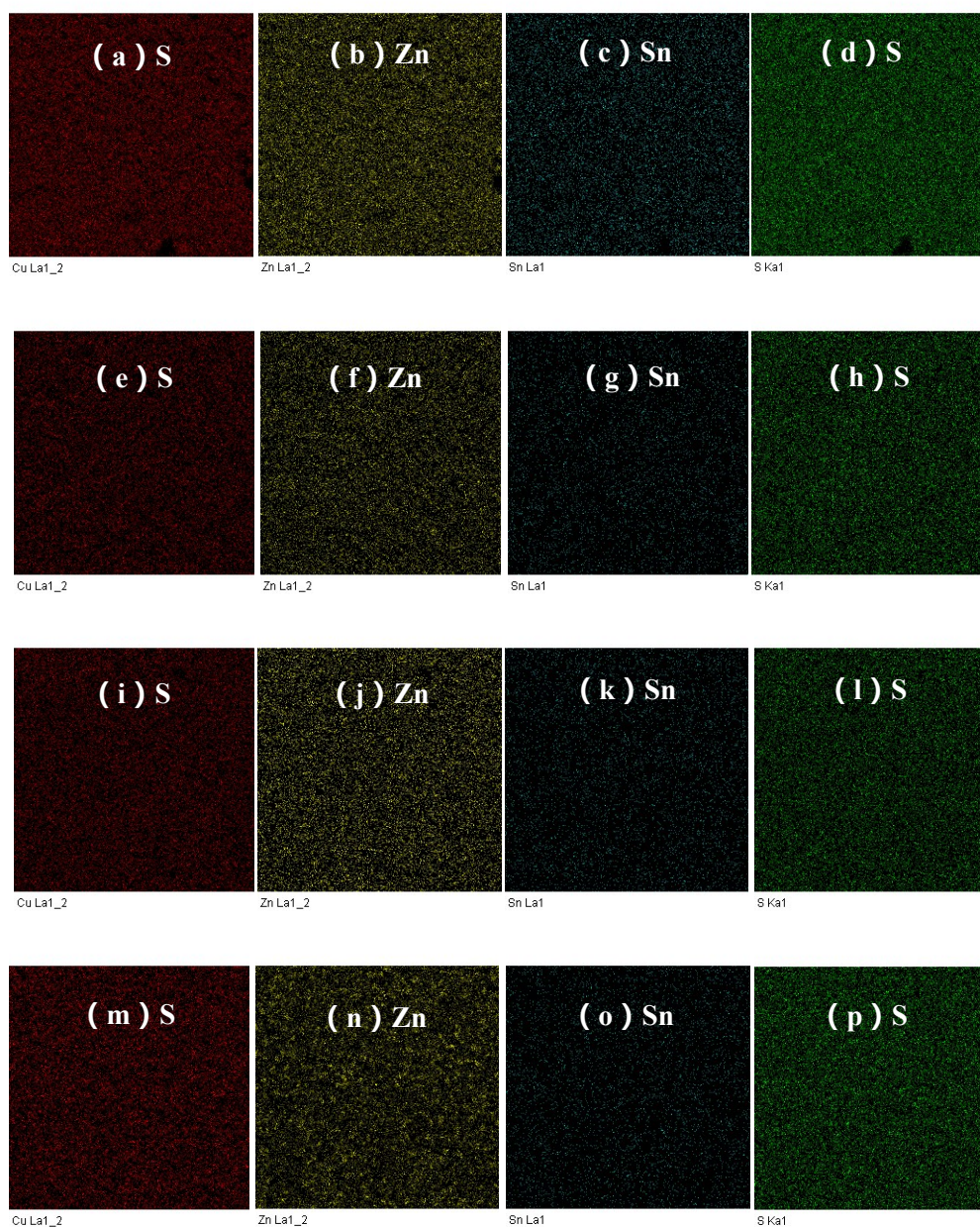
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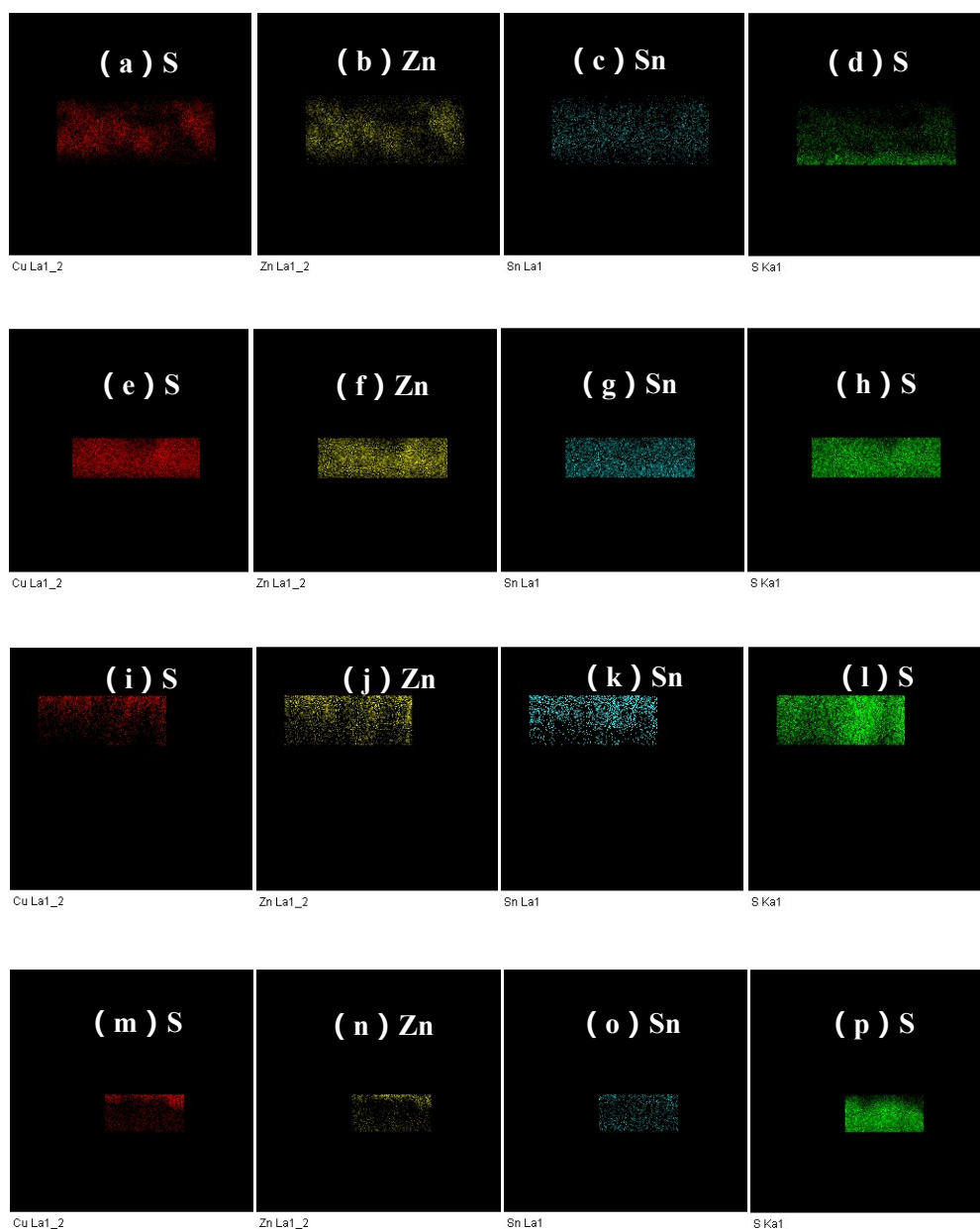
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**Fig. S1.** The surface EDS mappings of CZTS films sulfurized at process pressure of 10 Torr (a, b, c, d), 20 Torr (e, f, g, h), 40 Torr (i, j, k, l) and 60 Torr (m, n, o, p).



**Fig. S2.** The cross-sectional EDS mappings of CZTS films sulfurized at process pressure of 10 Torr (a, b, c, d), 20 Torr (e, f, g, h), 40 Torr (i, j, k, l), and 60 Torr (m, n, o, p).