Atomic Layer Deposition of Entropy Stabilized $Zr_xTa_yO_z$ (Supplimetnal Document)

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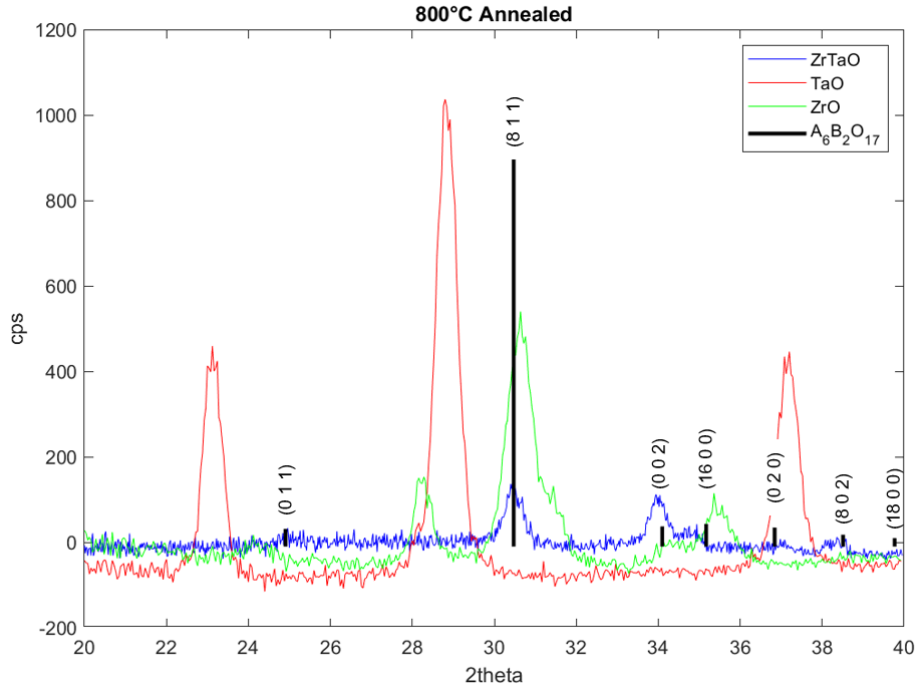

Fig. 1. XRD of ALD deposited 800° C annealed ternary $Zr_xTa_yO_z$ compared to binary ZrO_2 and Ta_2O_5. Shown in black are the expected diffractions for HEO stablized $A_6B_2O_{17}$ from [5].

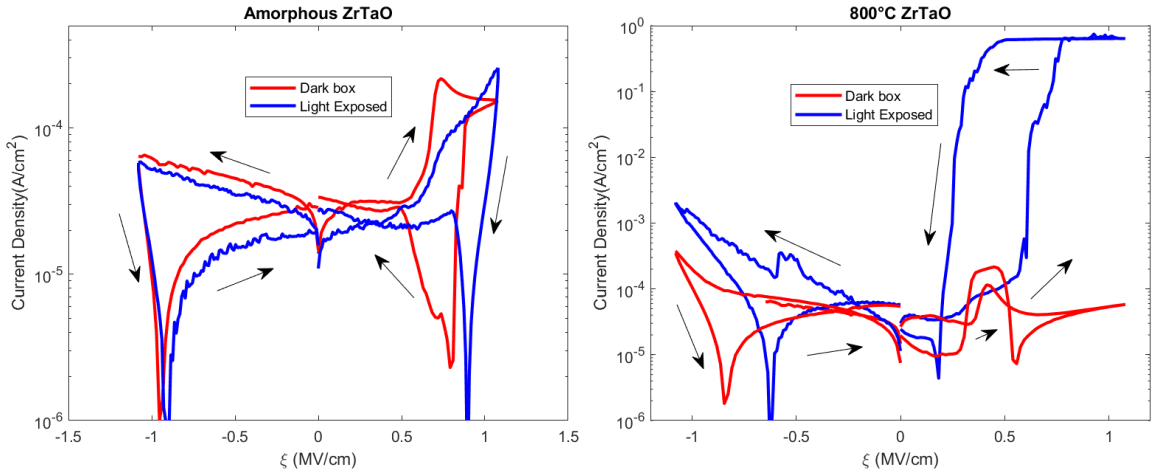

Fig. 2. Current vs. voltage cycling of Ag/ZTO/Si devices in the dark and with visible light exposure for (left) as-deposited and (right) 800°C annealed. Light exposed entropy stabilized $Zr_xTa_yO_z$ shows a set voltage of 0.56 MV/cm and an On/Off current ratio of $7x10^3$.