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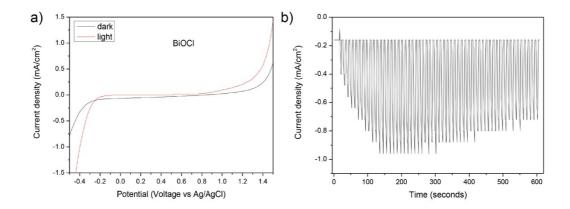


Figure 1: a) The current-voltage behavior of the AACVD grown BiOCl film under 100 mW/cm^2 illumination in $0.5M \text{ Na}_2\text{SO}_4$ electrolyte. b) The stability of the BiOCl film at an applied voltage of -0.4 V vs Ag/AgCl.

$$\eta/\% = \left[\frac{|J_{ph}|(mAcm^{-2}) \times (1.23 - |V_b|)/(V)}{P_{total} (mAcm^{-2})} \right]_{AM1.5G} \times 100$$

Equation 1: was used to determine the applied bias-photon-to-current conversion efficiency for the three BiOX films grown via AACVD.