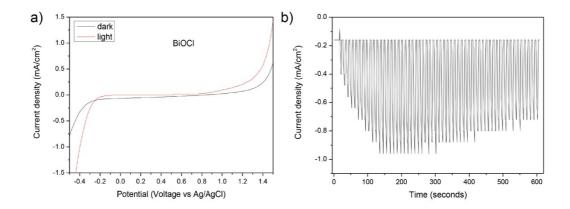Figure 1: a) The current-voltage behavior of the AACVD grown BiOCl film under 100 mW/cm^2 illumination in 0.5M Na$_2$SO$_4$ electrolyte. b) The stability of the BiOCl film at an applied voltage of -0.4 V vs Ag/AgCl.

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

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