



**Figure 1:** *a)* Band structure across a  $\kappa\text{-(In}_{0.3}\text{Ga}_{0.7})_2\text{O}_3/\kappa\text{-(Al}_{0.14}\text{Ga}_{0.86})_2\text{O}_3$  interface, based on preliminary work. [Ref: Y.K. Hommedal. Master Thesis, Department of Physics, University of Oslo (2021), available at <https://www.duo.uio.no/handle/10852/86984>] *b)* Schematic representation of the sample geometry (not to scale). Since the outer surface may be vulnerable upon (S)TEM sample preparation, the two layers designed for XPS is repeated in a stack, to enable both XPS/HAXPES and (S)TEM investigation of the same sample. *c)* HAADF TEM image of previously investigated “stack” sample.