

Figure 1: A schematic of the concept of ALD dielectric based ohmic metal to semiconductor contacts. Contact and sheet resistances are illustrated as  $R_c$  and  $R_s$ , respectively.

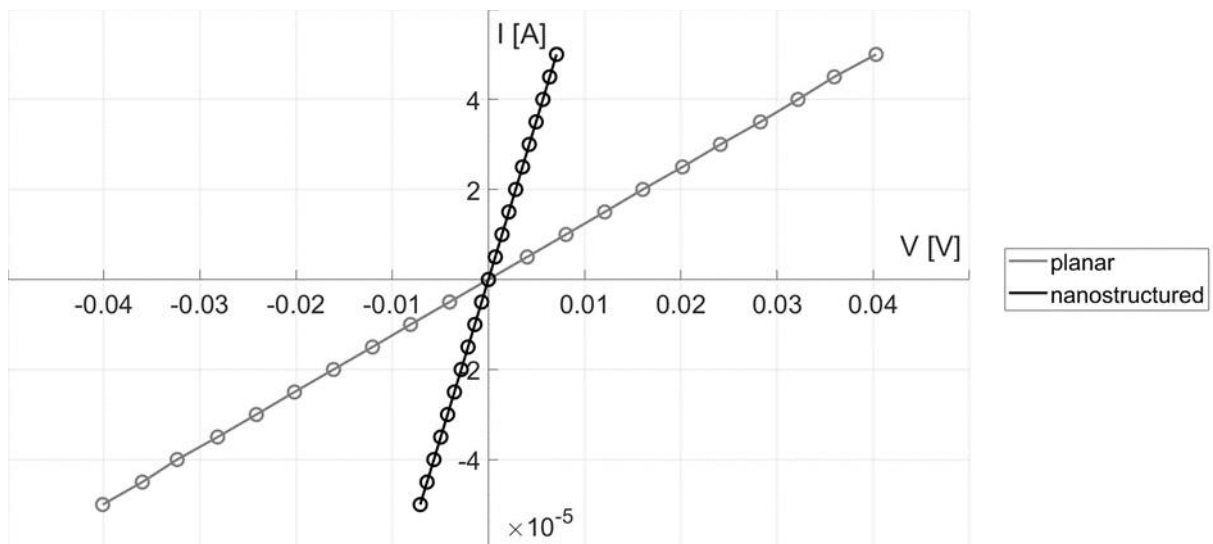


Figure 2: I-V curves for ALD  $\text{Al}_2\text{O}_3$  based metal to Si contacts on planar and nanostructured Si. The increased charge in  $\text{Al}_2\text{O}_3$  on nanostructured Si lowers both  $R_c$  and  $R_s$ , resulting in increased slope.