

# Supporting Information

## Nanoplasmonic Enhanced High-Performance Metastable Phase $\alpha$ - $\text{Ga}_2\text{O}_3$ Solar-blind Photodetector

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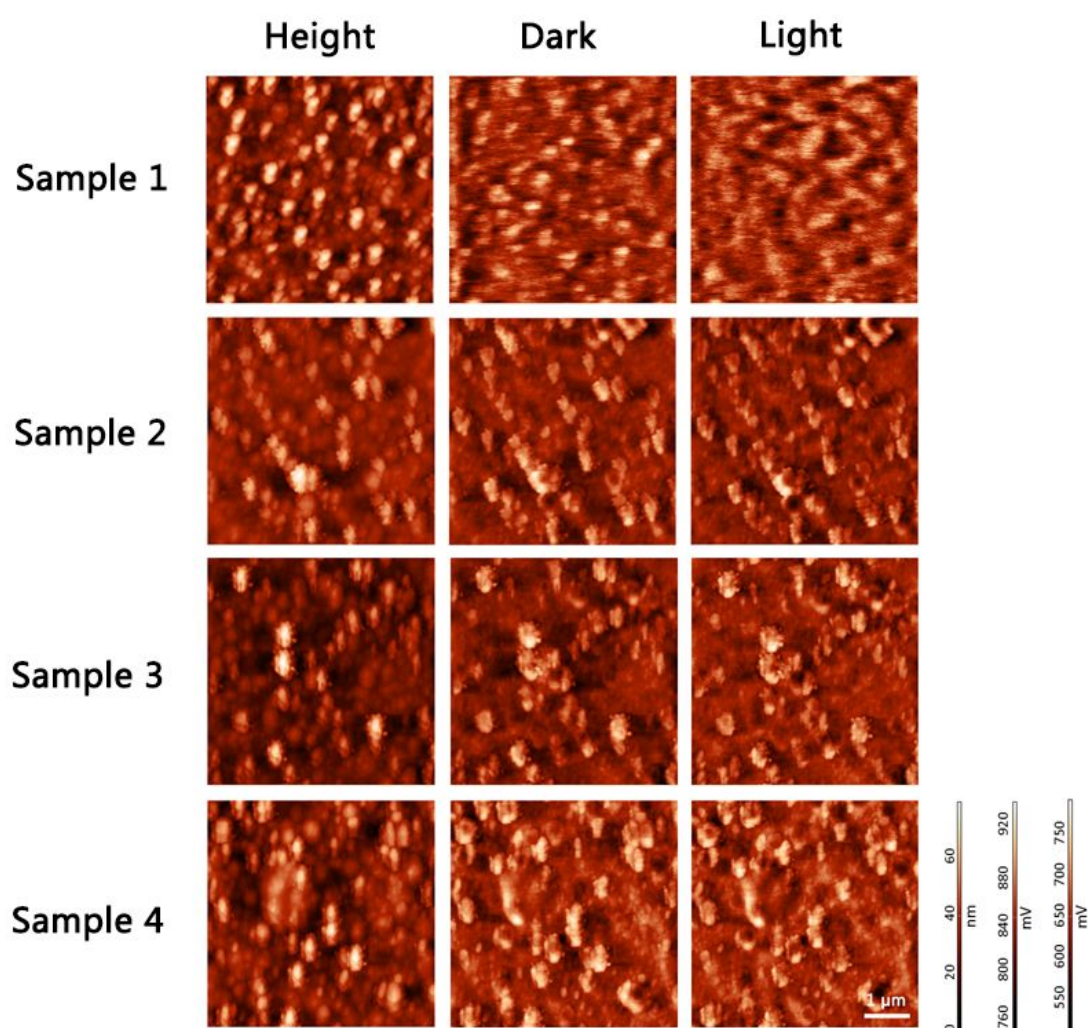


Figure 1. AFM and KPFM images of samples with finger-spacing ranging from 5 to 20  $\mu\text{m}$ .

The sample probed by AFM and KPFM is of 25  $\mu\text{m}$  finger-spacing in the manuscript. Similar characteristics are shown in different samples (sample 1-4 represent devices of finger-spacing ranging from 5 to 20  $\mu\text{m}$ ) on the same wafer. Surface potential exhibits significant decrease around the Al NPs region.