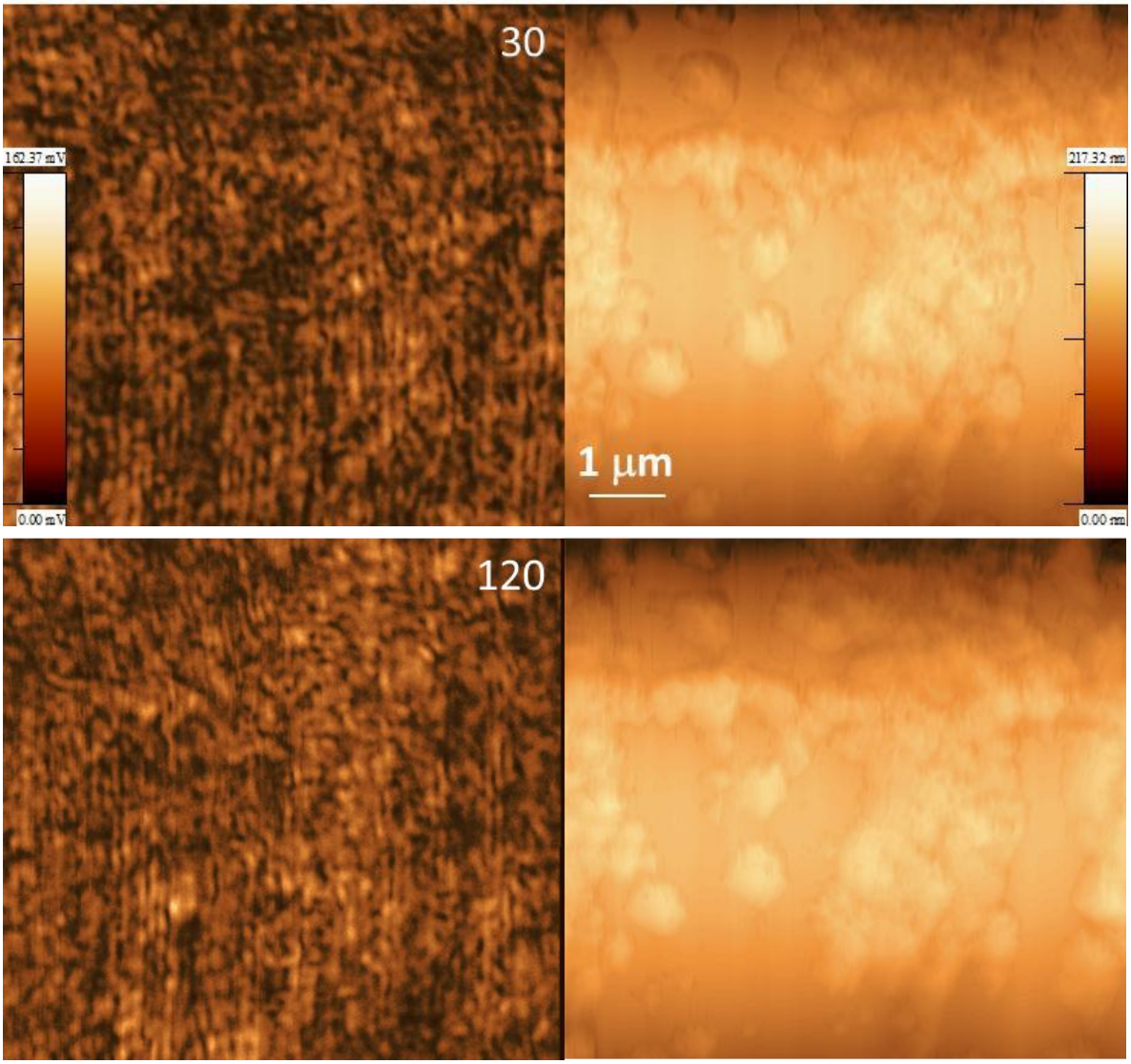
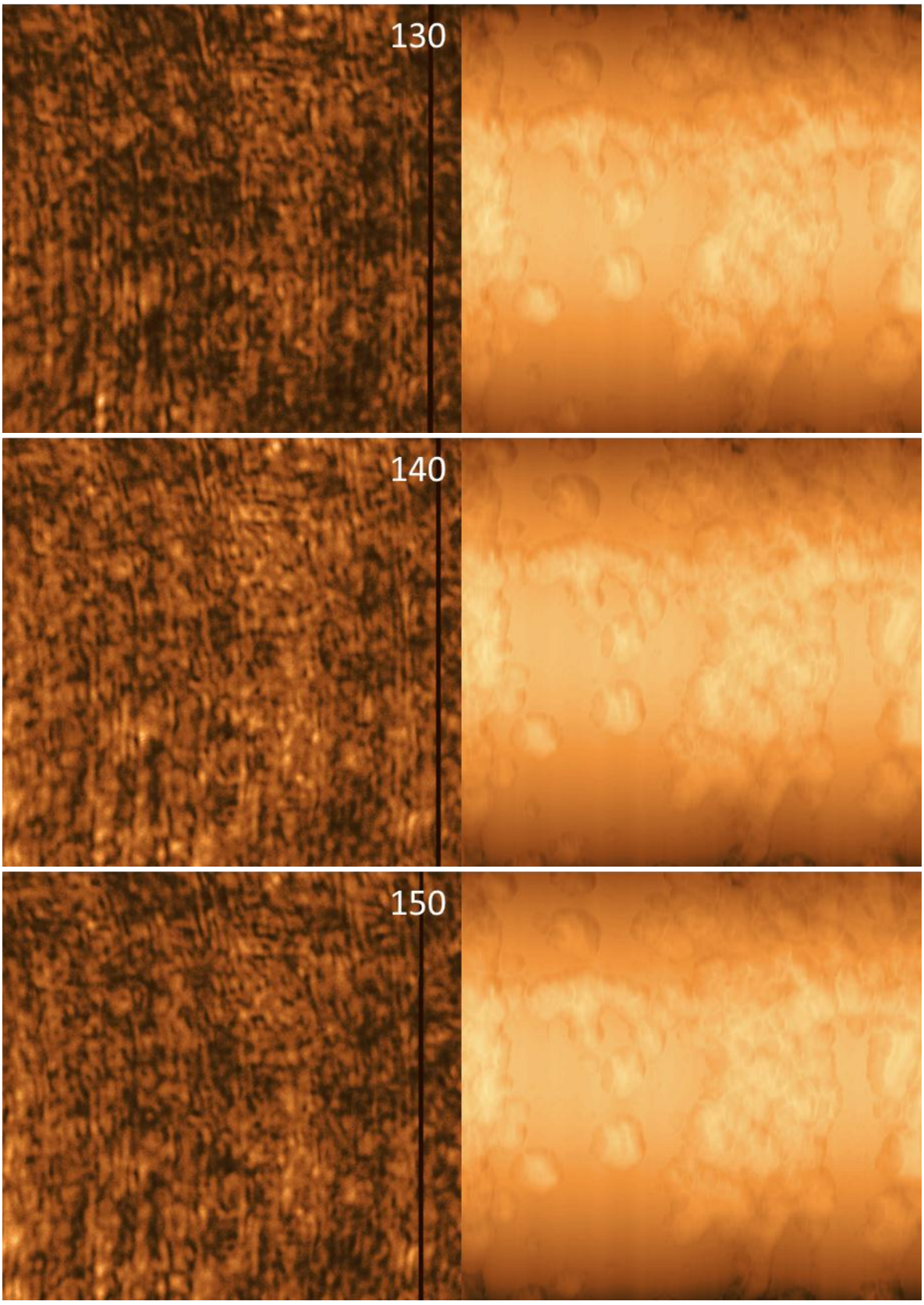
Electronic Supplementary Material (ESI) for RSC Advances.

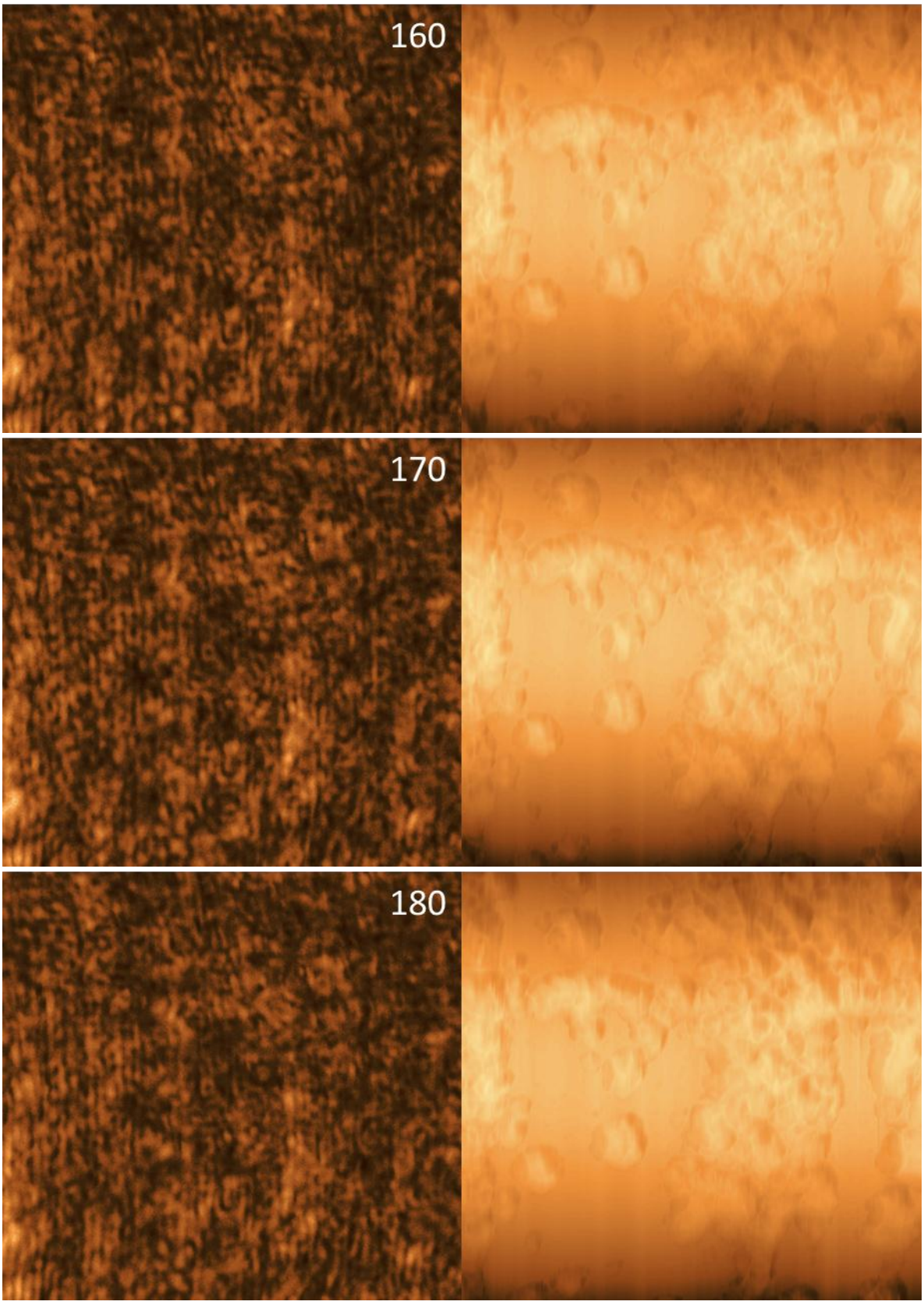
Polarization-selective excitation of plasmonic resonances in silver nanocube random arrays by optical fiber cladding mode evanescent fields

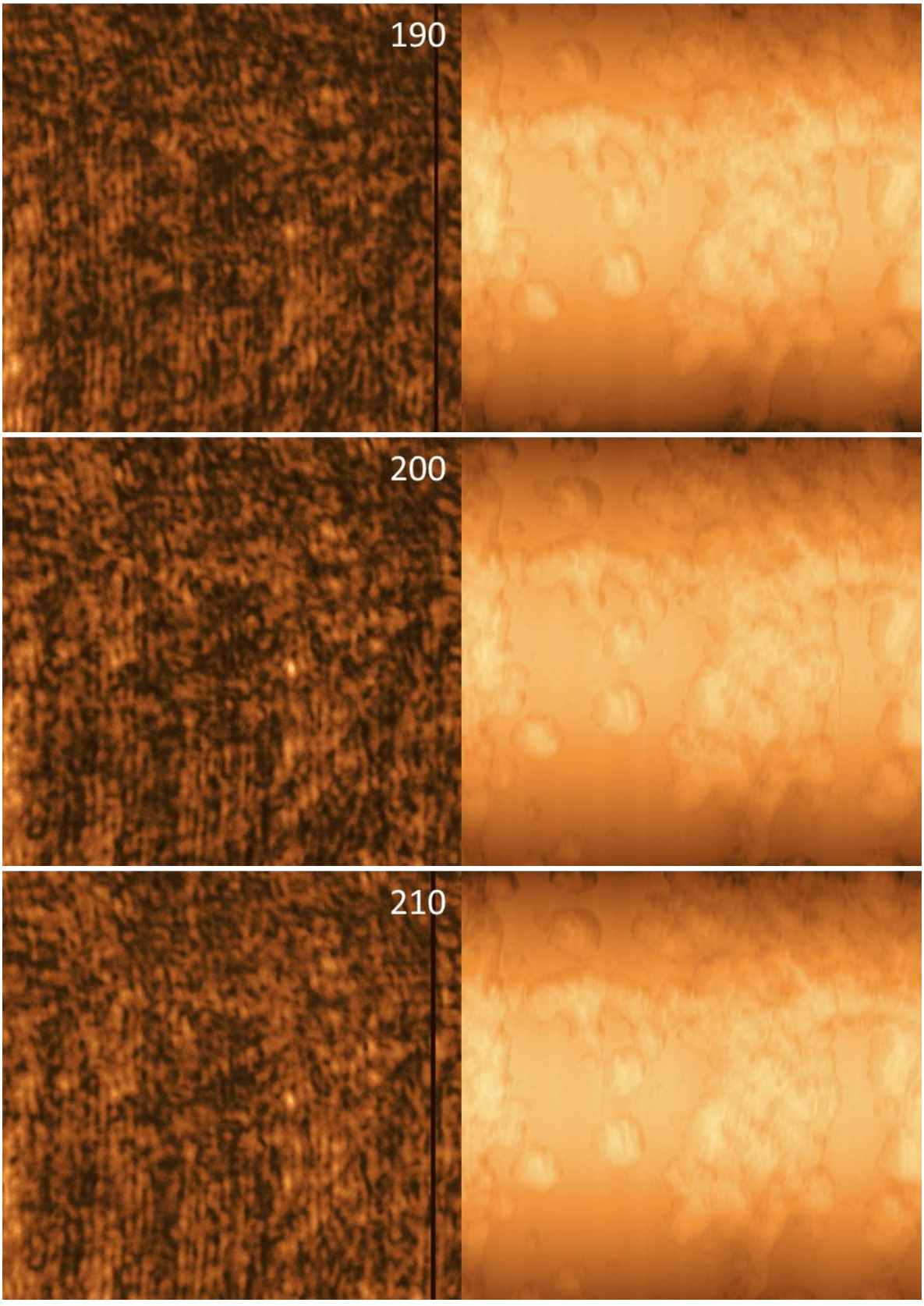
Anatoli Ianoul,[1,*] *Mitchell Robson,* [1,2,3] *Vladislav Pripotnev,* [1,4] *Jacques Albert*[2]

Figure S1. Near-field (left) and topography (right) images of TFBG device coated with silver nanocubes for different polarizations of excitation radiation. Arbitrary relative polarizations are indicated at the top. These 15 by 15 micrometer^2 images were obtained using 0.1 Hz scanning speed and 512 by 512 points. Images were cropped using the topography data to address small drift (several hundred nanometers from image to image) over the measurements course. Excitation power of 647 nm light was ~20 mW.




130
140
150


160
170
180


190
200
210

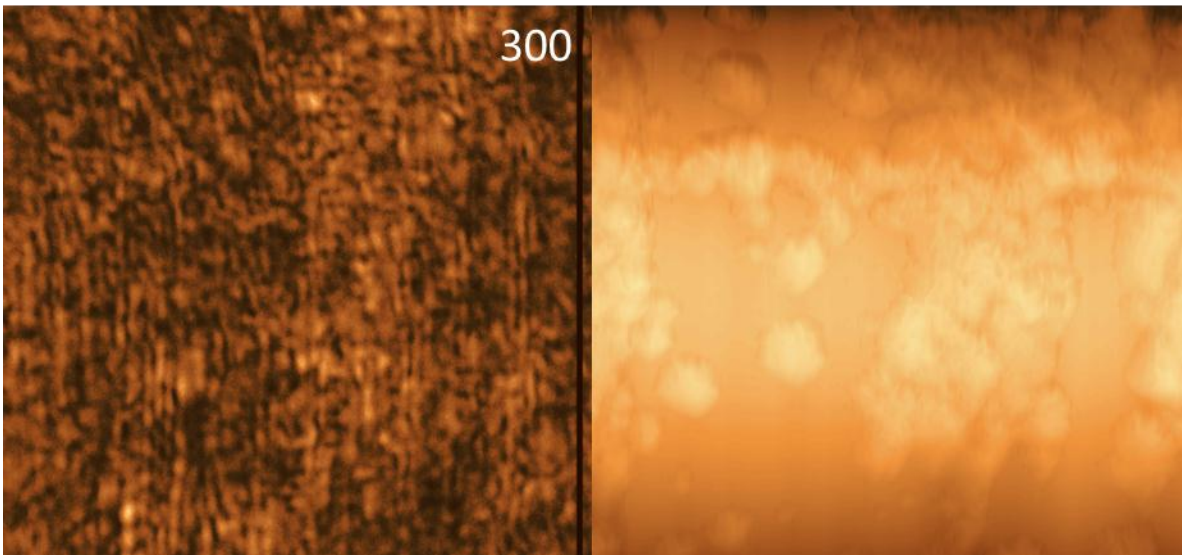

300

Figure S2. TEM image of the nanocube sample used in the study.

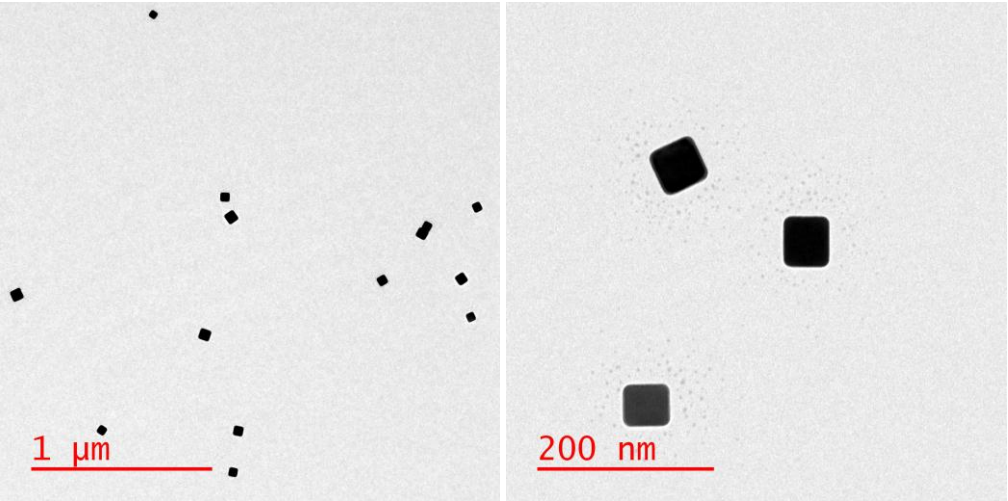


Figure S3. NSOM image obtained for a TFBG coated with silver nanorods overlaid with the fiber topography. These nanorods lack plasmonic resonance at 647 nm. As a result attenuation of the near-field signal is seen coinciding with the location of nanorods.