Synthesis of Ag Nanobars in the Presence of Single-Crystal Seeds and a Bromide Compound, and Their Surface-Enhanced Raman Scattering (SERS) Properties Qiang Zhang,^{†,‡} Christine H. Moran,^{†,€} Xiaohu Xia,[†] Matthew Rycenga,[†] Naixu Li,^{†,€} and Younan Xia^{†,€,*}

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Supporting Information

Figure S1. TEM images of (A) single-crystal Ag seeds with a cubic shape and (B) Ag nanobars synthesized from these seeds using a standard procedure in the presence of NaBr.



Figure S2. XPS measured from Ag nanocubes (synthesized without Br⁻, black) and Ag nanobars (synthesized with Br⁻, red). (A) There is clearly signal from Br⁻ from Ag nanobars. Intensity scale bar is 1000 counts/s. (B) The binding energy of silver is slightly shifted from the Ag nanocubes to the Ag nanobars, indicating a change in the environment of the surface Ag atoms. The scale bar is 10,000 counts/s.



Figure S3. TEM images of Ag nanocrystals synthesized in the presence of (A) NaCl and (B) KI.



Figure S4. (A) Population of nanocubes and nanobars present in a typical NaBr synthesis, based on SEM images. (B) Distribution of different cross-sectional shapes within the population of nanobars. The total number of particles counted in the SEM images was 240.