Supplementary Materials for

Polarization Dependence of Surface-Enhanced Raman Scattering in Gold Nanoparticle-Nanowire Systems

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³Division of Solid State Physics/The Nanometer Structure Consortium, Lund University, Box 118, S-221 00, Lund, Sweden The Raman mapping clearly shows that strong Raman signals are obtained from the parts of the gold wire where gold nanoparticles are present. Figure S1 shows three examples of particle-wire systems with various sizes of particles (very big, middle size, and very small) that all give strong SERS signals.

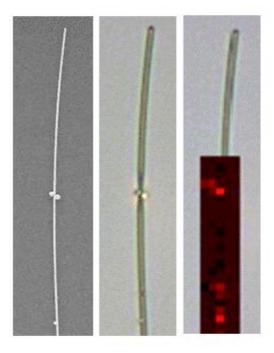


Figure S1. SEM, optical microscopy, and Raman mapping of gold nanowire nanoparticle systems.

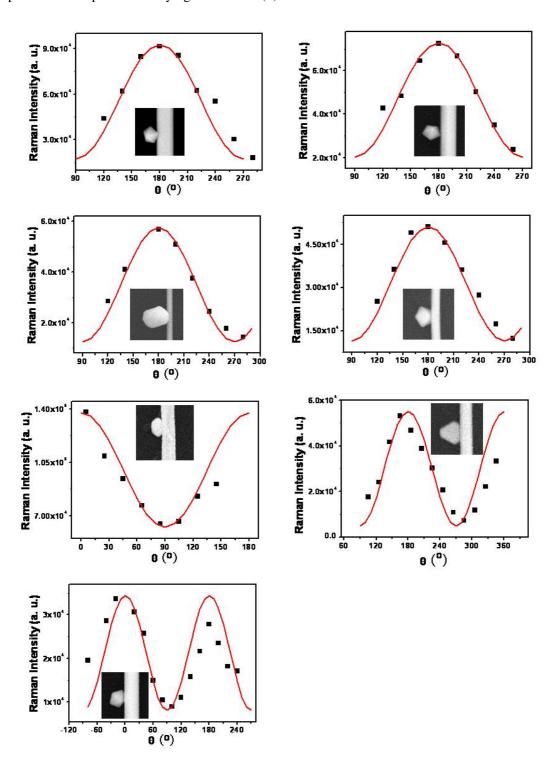


Figure S2 shows some further examples of SERS from nanoparticle wire junctions. All show a polarization dependence varying as with $\cos^2(\theta)$.

Figure S2. More examples showing polarization dependence. Black squares are experimental data, and red curves are fits to $\cos^2(\theta)$.