Supporting Information

Pristine and Hybrid Nickel Nanowires: Template-, Magnetic Field-, and Surfactant-Free Wet Chemical Synthesis and Raman Studies

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Supporting Information 1

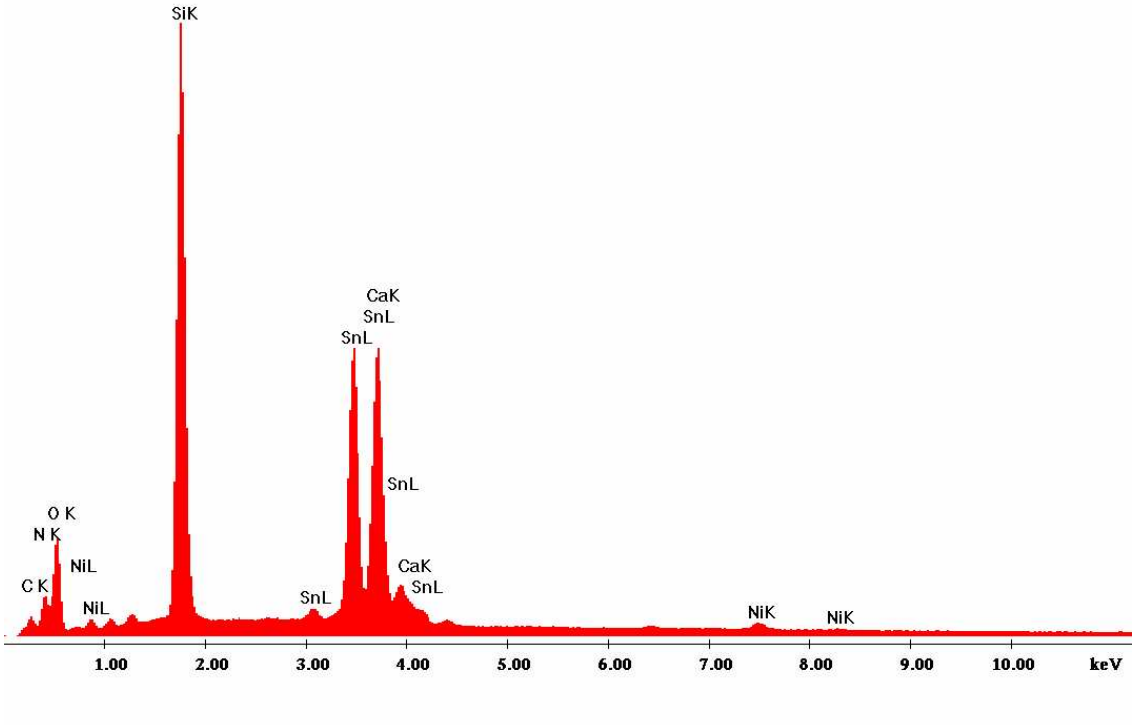

Figure S1. EDAX spectrum of the nickel nanowires.

Supporting Information 2

Details of Ni nanowire synthesis at different Ni^{2+} concentrations: Each synthesis was carried out using 7.5 mL of ethylene glycol and 0.5 mL of hydrazine at 120 ^{o}C.

Ni^{2+} concentration (mM)	Average length (μm)	Average diameter (nm)	λ_{max} (nm)
1.25	1.50-2.00	60±4	592
5.00	3.00-3.50	100±5	670
10.00	5.00-6.00	130±7	790

Table 1: Various concentrations of Ni^{2+} used for Ni NW synthesis, dimensions of the NWs formed, and their optical absorption maxima.

Supporting Information 3

Details of Ni nanowire synthesis at different temperatures: Each synthesis was carried out with 10 mM of Ni^{2+} in 7.5 mL of ethylene glycol using 0.5 mL hydrazine.

Temperature (^{O}C)	Average length (μm)	Average diameter (nm)	λ_{max} (nm)
90	20.00-25.00	180±7	NIR
120	5.00-6.00	130±5	820
160	0.50-1.50	100±4	625

Table 2: Different temperatures used for Ni NW synthesis, their dimensions and optical absorption features of the Ni NWs.

Supporting Information 4

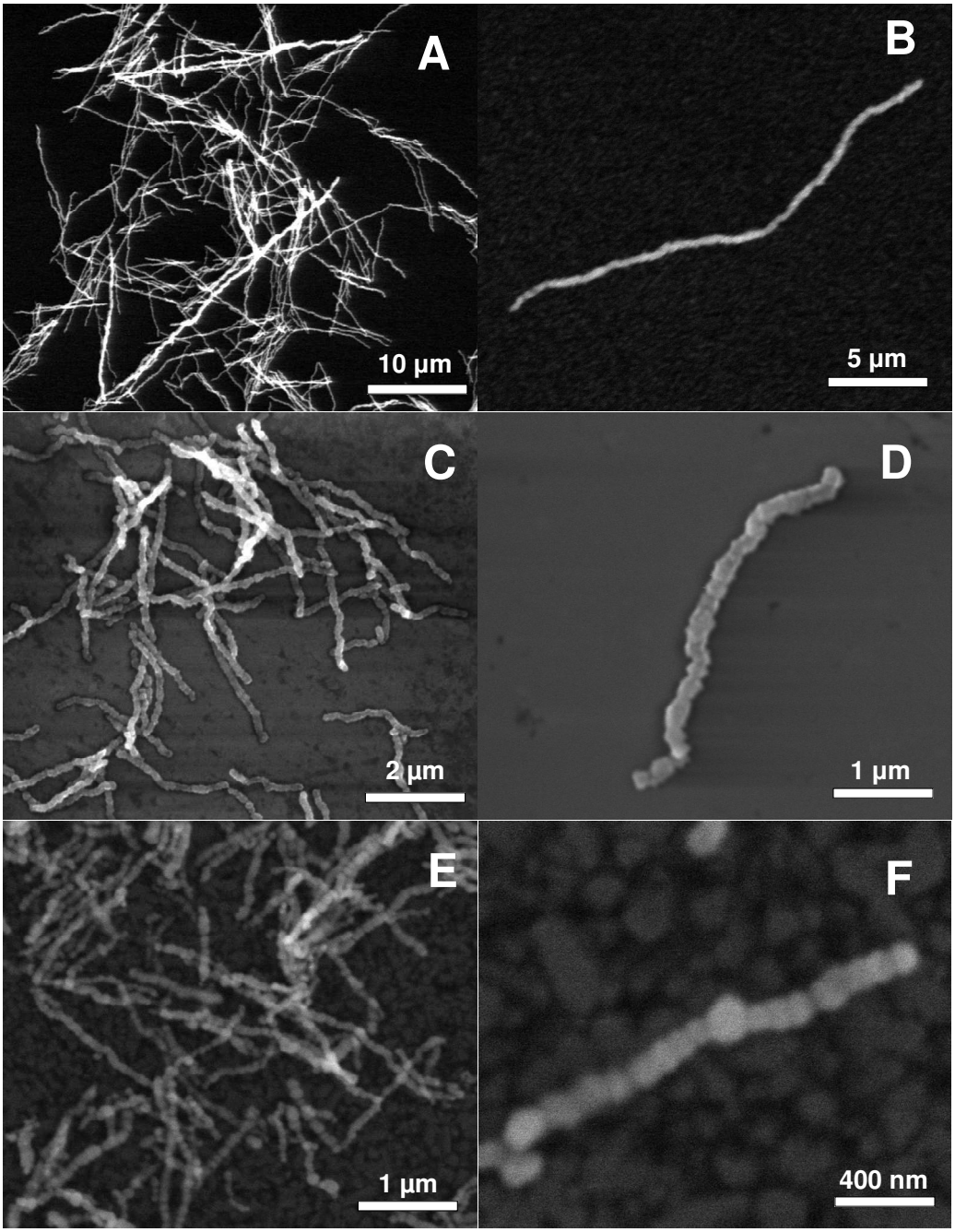

Figure S2. Large area SEM images and corresponding images of single Ni NWs synthesized at 90 ^{o}C (A and B), 120 ^{o}C (C and D), and 160 ^{o}C (E and F).

Supporting Information 5

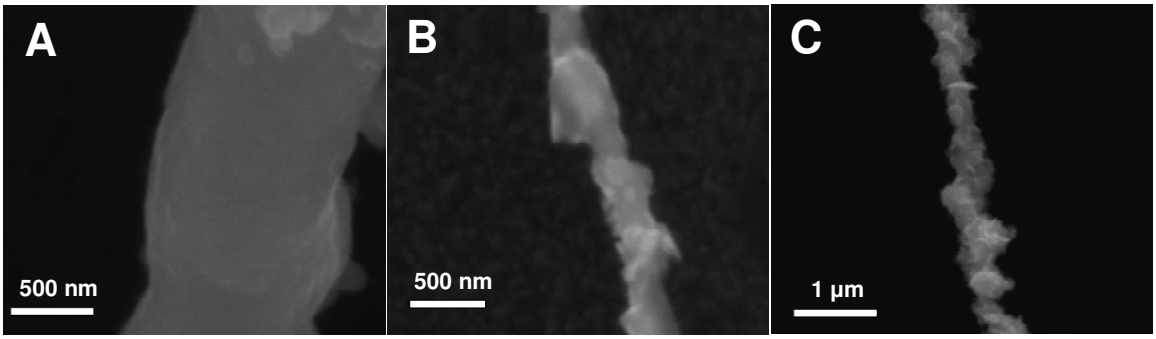

Figure S3. SEM images of pristine nickel nanowires synthesized using 80 µL (A), 200 µL (B) and 500 µL of hydrazine hydrate, showing the changes in surface morphology.

Supporting Information 6

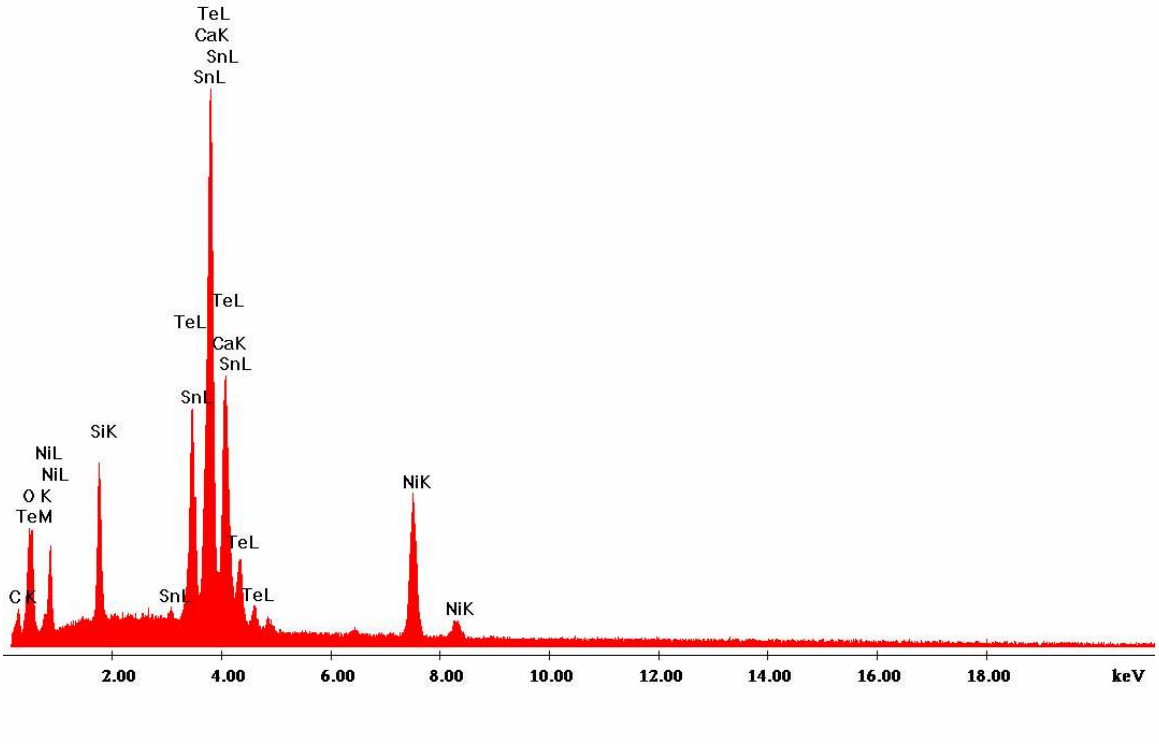

Figure S4. Spot EDAX spectrum of Te-coated Ni nanowires showing the intensities of Te L and Te M.

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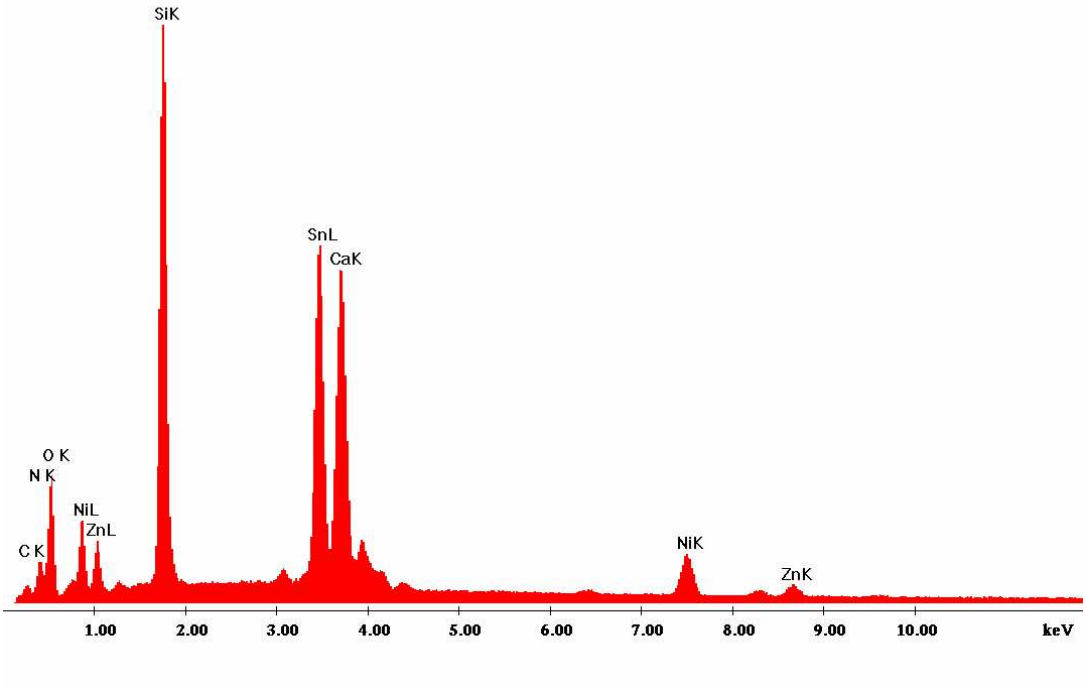

Figure S5. EDAX spectrum of ZnO-coated Ni nanowires showing the intensities of Zn K and Zn L.