Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2014

Supporting Information

Synthesis of Ag-Ni core-shell nanowires and their application in anisotropic transparent conductive films

Bo-Tau Liu, 1,* Shao-Xian Huang, 1 Mei-Feng Lai, 2,3 and Zung-Hang Wei 2

¹Department of Chemical and Materials Engineering, National Yunlin University of Science and Technology, Yunlin 64002, Taiwan

²Institute of NanoEngineering and MicroSystems, National Tsing Hua University, Hsinchu 30013, Taiwan

³Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu 30013, Taiwan

*Corresponding author. E-mail address: liubo@yuntech.edu.tw (Bo-Tau Liu)

List of contents

Preparation of silver nanowires

Fig.S1. XRD patterns of AgNWs and Ag-Ni core-shell nanowires.

Fig.S2. UV-Vis spectra of AgNWs and Ag-Ni core-shell nanowires.

Preparation of silver nanowires

AgNWs were synthesized using a polyol reduction method as reported in our previous study. 1,2 Briefly, 0.3 M PVP (36 mL) and 0.2 M NaCl EG solution (80 μ L) were mixed in a reaction vessel and then heated at 160 °C. 1 M AgNO₃ EG solution (20 μ L) was added into the mixture. After 5 min, 1 M AgNO₃ (4 mL) was added slowly using a peristaltic pump. When the color of the solution turned to a misty auburn, the residual AgNO₃ solution was added into the vessel immediately. The as-prepared AgNWs were washed three times with EG through centrifugation.

References

- 1. B.-T. Liu and H.-L. Kuo, *Carbon*, 2013, **63**, 390-396.
- 2. B.-T. Liu and S.-X. Huang, RSC Adv., 2014, 4, 59226-59232.

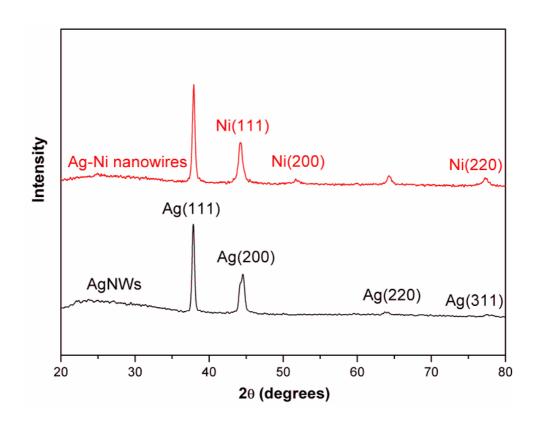


Fig.S1. XRD patterns of AgNWs and Ag-Ni core-shell nanowires.

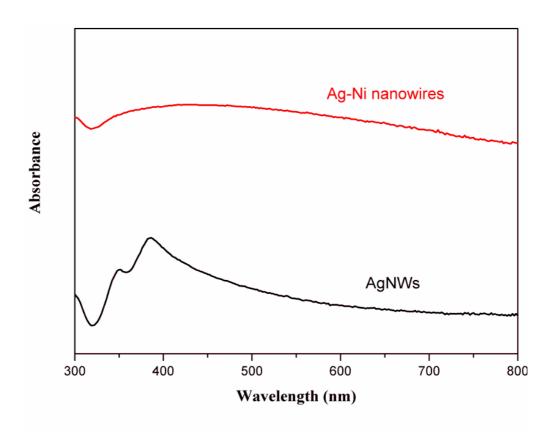


Fig.S2. UV-Vis spectra of AgNWs and Ag-Ni core-shell nanowires.