

## Supporting information

# Fabrication of highly ordered multi-segment line pattern over a large area

*Jisun Lee, Su-Kyong Lee, Jin-Mi Jung, Youn-Kyoung Baek and Hee-Tae Jung\**

<sup>†</sup> *Department of Chemical and Biomolecular Engineering, Korea Advanced Institute of  
Science and Technology (KAIST), 335 Gwahangno, Yuseong-gu, Daejeon 305-701 (Korea)*

Author E-mail Address: [heetae@kaist.ac.kr](mailto:heetae@kaist.ac.kr)

	Au	Ni	Au-Ni
Conductance, G (S, from I-V curve)	0.04265	0.0158	0.0243
Conductivity, $\sigma$ (S/m, Calculated)	$1.0236 \times 10^6$	$6.32 \times 10^5$	$8.278 \times 10^5$

Table. S1. Calculation results of conductivity of Au, Ni and Au-Ni line pattern.

We measured I-V behavior of our line pattern using two-probe method and calculated the electric conductance by  $\sigma = G(l/tw)$ , where  $\sigma$  is the electrical conductivity, G is the electrical conductance obtained from the slope of the linear current-voltage curve, l is the distance between two electrodes, t is the thickness and w is the width of the line pattern. The space between two electrodes is 3mm, and the length of a single Au segment is 5 $\mu$ m.