Supporting Information

Nanospot welding of carbon nanotubes using near-field enhancement

effect of AFM probe irradiated by optical fiber probe laser

Lijun Yang^{a,1}, Jianlei Cui^{a,b,c,1,*}, Yang Wang^{a,*}, Xuesong Mei^b, Wenjun Wang^b, Kedian Wang^b, Chaojian Hou^a

^{a)}Key Laboratory of Micro-systems and Micro-structures Manufacturing, Ministry of Education, Harbin Institute of Technology, Harbin 150001, P. R. China

^{b)}State Key Laboratory for Manufacturing Systems Engineering, Xi'an Jiaotong University, Xi'an 710049, P. R. China

^{c)}State Key Laboratory of Surface Physics and Department of Physics, Fudan University, Shanghai 200433, P. R. China

¹ Authors contributed equally to this work. E-mail: <u>cjlxjtu@mail.xjtu.edu.cn</u>

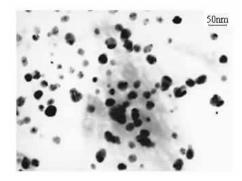


Figure S1. The morphology of silver nanoparticles

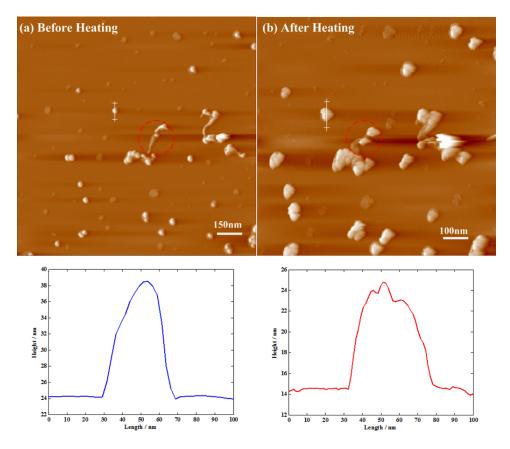


Figure S2. Experimental interconnection of carbon nanotubes (a) before heating and (b) after heating treatment based on AFM probe tip illuminated by fiber probe laser (64mW) with the corresponding height sizes

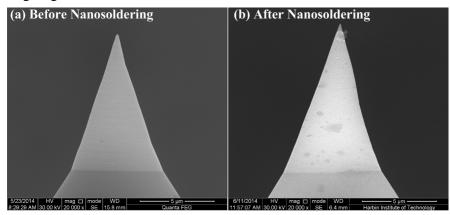


Figure S3. SEM images of AFM probe tip morphology (a) before and (b) after nanosoldering