## Abstract Submitted for the MAR10 Meeting of The American Physical Society

Molecular Dynamic Studies on Controlled Synthesis of Carbon Nanotube Junctions<sup>1</sup> JUN-QIANG LU, University of Puerto Rico at Mayaguez, LAN HE, HANQING JIANG, Arizona State University — We report molecular dynamic studies on synthesis of Carbon Nanotube (CNT) junctions with various terminals based on a self-assembling process from two tailored graphene nanoribbons (GNRs) either with perfect or irregular tailoring. Based on the recent experimental advancement on tailoring GNRs, our studies provide an approach to controlled synthesize CNT junctions with desired functionality. Quantum transport simulations are carried out to confirm the functionality of the synthesized CNT junctions.

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