Abstract Submitted for the MAR07 Meeting of The American Physical Society

Model Calculation for Molecular Junctions in between Carbon Nanotube Leads.¹ YIING-REI CHEN, National Taiwan Normal University, LEI ZHANG, MARK HYBERTSEN — We present analytical and numerical calculations for several prototypes of molecules in a CNT-molecule-CNT junction. The properties of the transmission function at the Fermi level reveal the influence from the CNT symmetry and the nature of the molecules. In particular, we discuss and compare both one-point contact and two-point contact cases, so as to illustrate how the Fermi level transmission of a multi-molecule junction can be either larger or smaller than that in the single-molecule case, depending on the choice of contact sites.

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Date submitted: 20 Nov 2006

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