

Supporting Information:

Heterogeneous Condensation of Water on Mica (001) Surface: A Molecular Dynamics Simulation Work

Xinwen Ou,^{†,1,2,3,4} Xiaofeng Wang,^{†,2} Zhang Lin,^{3,4} and Jingyuan Li,^{*,1,2}

¹Institute of Quantitative Biology and Department of Physics, Zhejiang University, Hangzhou 310027, China

²CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100049, China

³Key Laboratory of Design and Assembly of Functional Nanostructures, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou 350002, China

⁴School of Environment and Energy, South China University of Technology, Guangzhou 510006, China

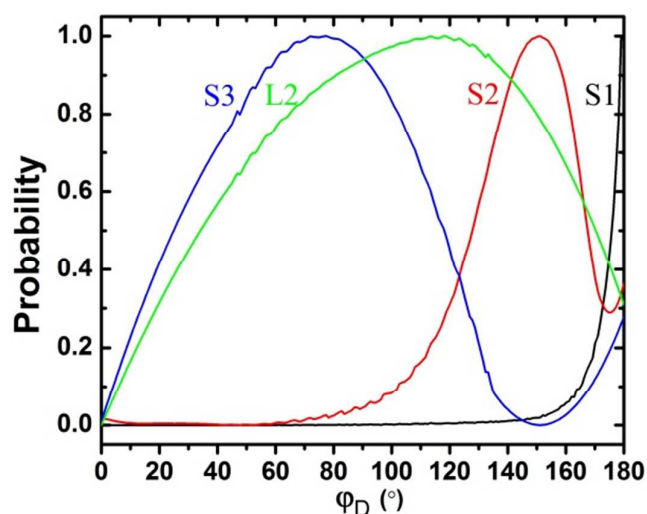


Figure S1. Distributions of dipole orientation of adsorbed water molecules, φ_D . The distributions are calculated to the water molecules distributing in the different peaks of water density profiles, and normalized by a sinusoid distribution separately.

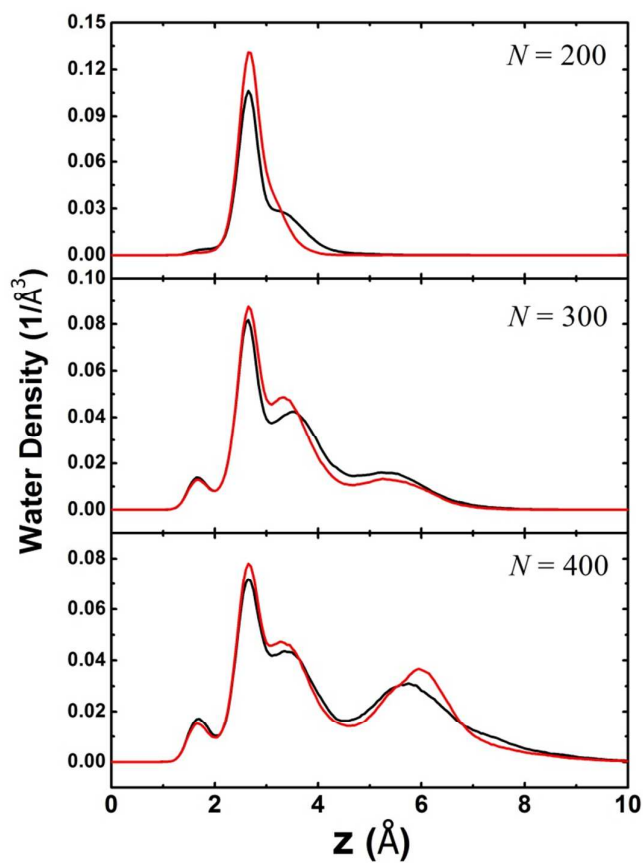


Figure S2. Water density profiles for three representative systems ($N = 200, 300, 400$), and the systems in either the absence (black line) or presence (red line) of graphene are compared.

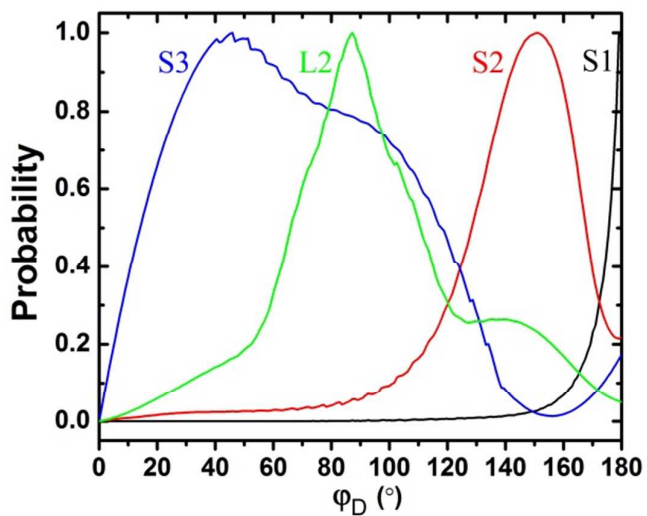


Figure S3. Distributions of dipole orientation of interfacial water with graphene coating.

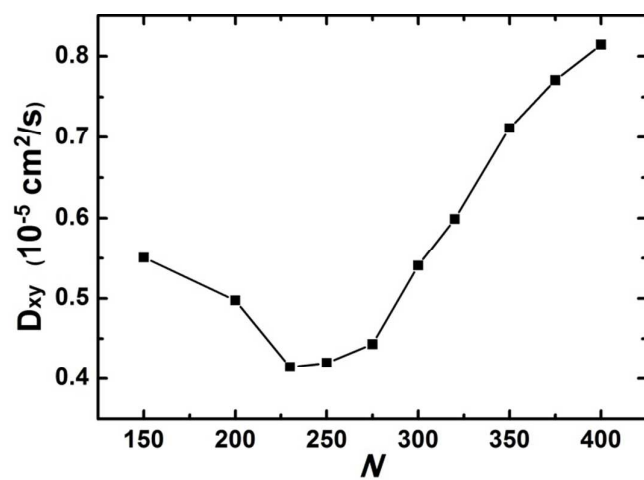


Figure S4. The parallel component of the diffusion tensor of interfacial water with graphene coating.