

## **An Unusual Pathway for the Membrane Wrapping of Rodlike Nanoparticles and the Orientation- and Membrane Wrapping-dependent Nanoparticle Interaction†**

### **Electronic Supplementary Information**

Tongtao Yue,<sup>a</sup> Xiaojuan Wang,<sup>a</sup> Fang Huang<sup>\*a</sup> and Xianren Zhang<sup>\*b</sup>

*<sup>a</sup>State Key Laboratory of Heavy Oil Processing, Center for Bioengineering and Biotechnology, China University of Petroleum (East China), Qingdao, 266580, China. E-mail: [fhuang@upc.edu.cn](mailto:fhuang@upc.edu.cn)*

*<sup>b</sup>Division of Molecular and Materials Simulation, State Key Laboratory of Organic–Inorganic Composites, Beijing University of Chemical Technology, Beijing 100029, China. E-mail: [zhangxr@mail.buct.edu.cn](mailto:zhangxr@mail.buct.edu.cn)*

**The On-line Electronic Supplementary Information (ESI) includes two videos and one figure:**

**Video S1:** linear arrangement of two rod-like NPs.

**Video S2:** asymmetrical wrapping of two rod-like NPs.

**Figure S1:** detailed wrapping pathway and arrangement of four rodlike NPs in five independent simulations.

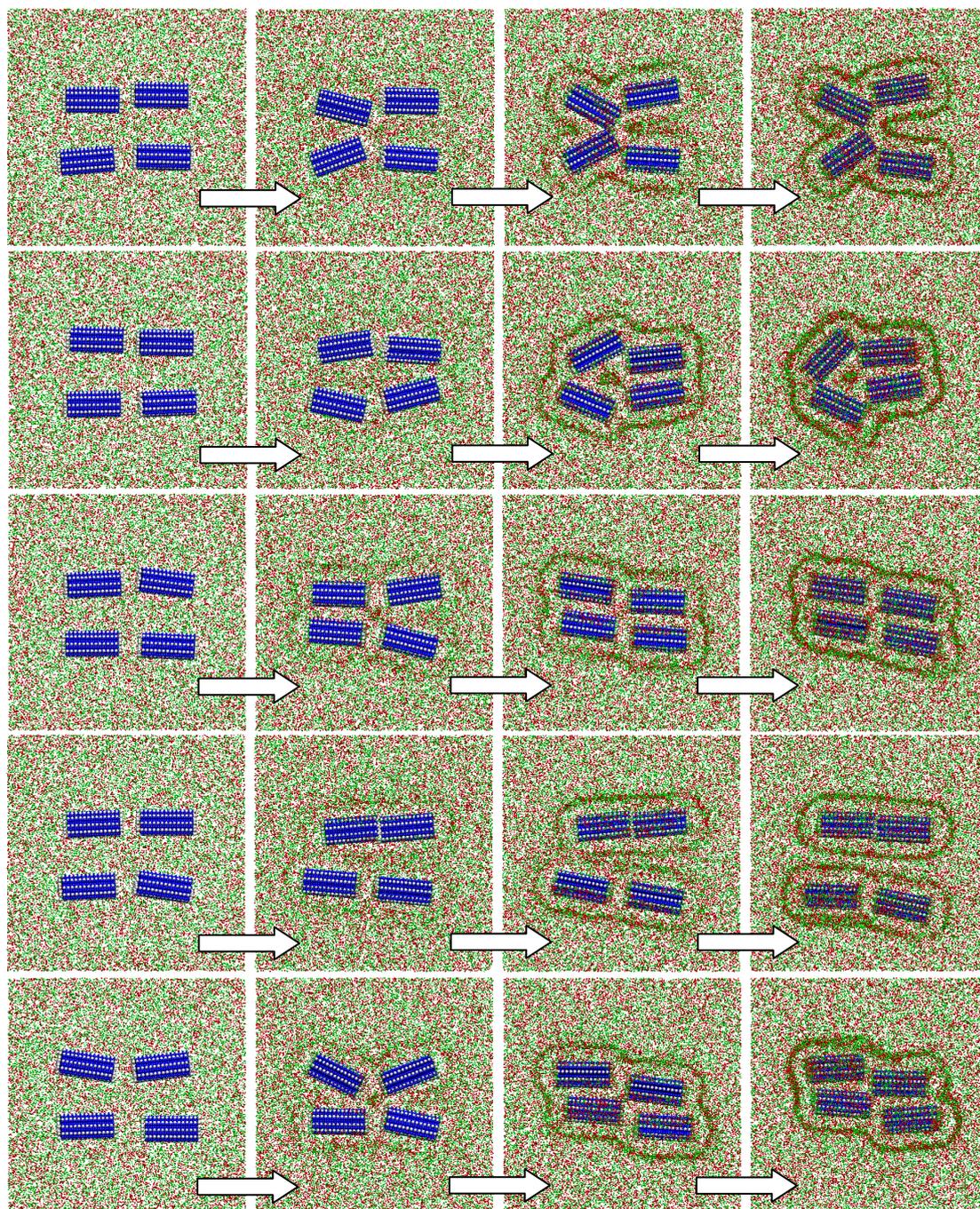


Fig. S1 Time sequence of snapshots corresponding to the wrapping of four rodlike NPs (diameter=4.52 nm, height=9.7 nm) in five independent simulations.