

## Supporting Information

### Magnetic property of $\text{Cu}_m\text{O}_n$ clusters: A first principles study

Fan Yang,<sup>1</sup> Qiang Sun,<sup>2</sup> L.L. Ma,<sup>1</sup> Yu Jia,<sup>2</sup> S. J. Luo,<sup>3</sup> J. M. Liu,<sup>3</sup> W. T. Geng<sup>4</sup>, J. Y.

Chen<sup>5</sup>, Sa Li<sup>1,6</sup> and Ying Yu<sup>1\*</sup>

<sup>1</sup> Institute of Nanoscience and Nanotechnology, Huazhong Normal University, Wuhan 430079, China.

<sup>2</sup> School of Physics and Engineering, Zhengzhou University, Zhengzhou 450001, China.

<sup>3</sup> Laboratory of Solid State Microstructures, Nanjing University, Nanjing 210093, China.

<sup>4</sup> Materials Modeling Laboratory, University of Science and Technology Beijing, Beijing 100083, China.

<sup>5</sup> School of Environment and Civil Engineering, Wuhan Institute of Technology, Wuhan 430073, China.

<sup>6</sup> Department of Physics, Virginia Commonwealth University, Virginia 23284, USA.

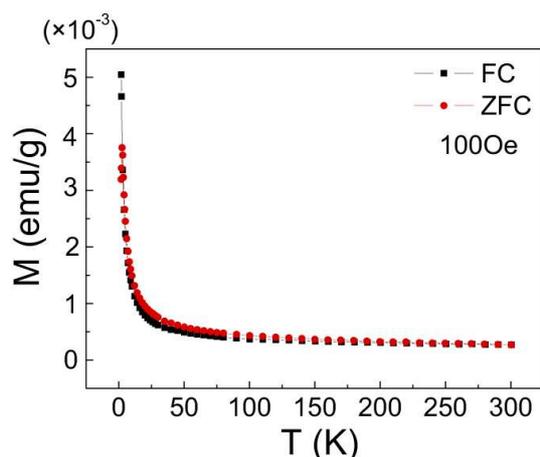


Figure S1. Zero field cooled/field cooling (ZFC/FC) magnetization of  $\text{Cu}_2\text{O}$  nanoparticles (assembled by much smaller  $\text{Cu}_2\text{O}$  particles) as a function of temperature.

