

Supporting Information

Co-N₄ Moiety Embedded into Graphene as an Efficient Single-Atom-Catalyst for NO Electrochemical Reduction: a Computational Study

Zhongxu Wang,[†] Jingxiang Zhao,^{*,†} Jingyang Wang,[‡]

Carlos R. Cabrera,[#] Zhongfang Chen^{*,#}

[†] College of Chemistry and Chemical Engineering, and Key Laboratory of Photonic and Electronic Bandgap Materials, Ministry of Education, Harbin Normal University, Harbin, 150025, China

[‡] Shenyang National Laboratory for Materials Science, Institute of Metal Research, Chinese Academy of Sciences, Shenyang 110016, China

[#] Department of Chemistry, University of Puerto Rico, Rio Piedras Campus, San Juan, PR 00931, USA

* To whom correspondence should be addressed. Email: xjz_hmily@163.com (JZ);
zhongfangchen@gmail.com (ZC)

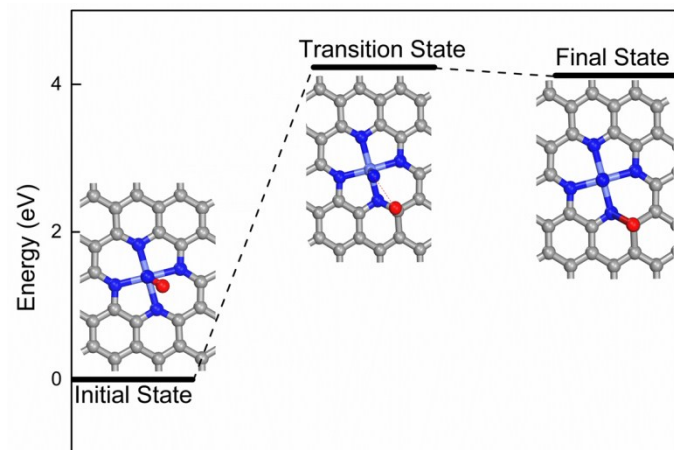


Figure S1. The minimum energy path (MEP) of NO dissociation on the Co-N₄ moiety embedded into graphene.

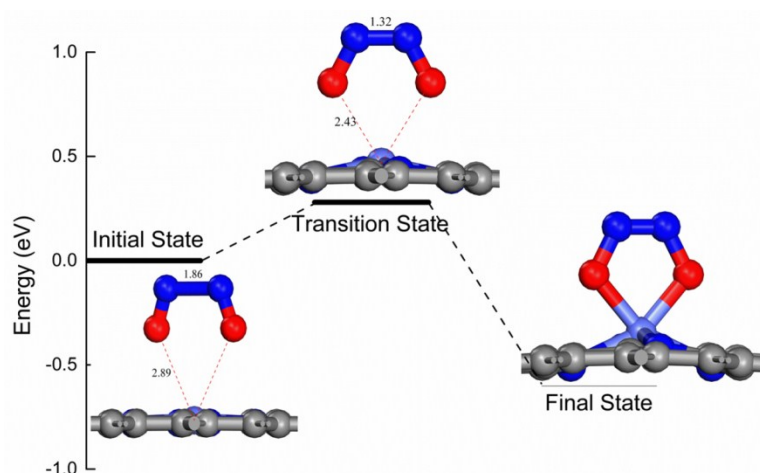


Figure S2. The minimum energy path (MEP) to form the energetically most favorable $(\text{NO})_2$ dimer on the Co-N_4 moiety embedded into graphene.

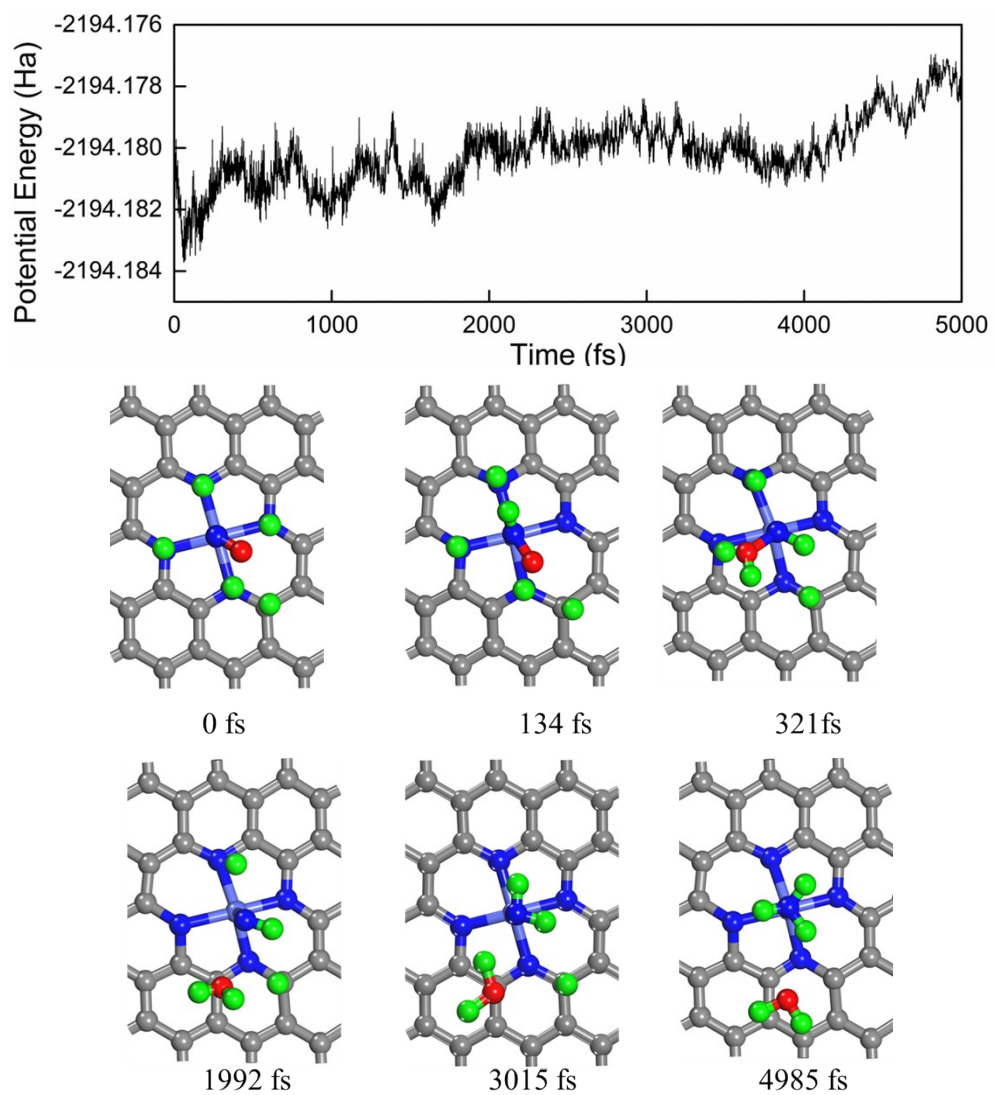


Figure S3. Some key snapshots during the trajectories of the first principles MD simulations of NO reduction on Co-N₄/graphene at 300 K.