

Supplementary Information (Catalysts MDPI Journal)

Hydrogen Production from Formic Acid over Au Catalysts Supported on Carbon: Comparison with Au Catalysts Supported on SiO₂ and Al₂O₃

Dmitri A. Bulushev^{a,*}, Vladimir I. Sobolev^a, Larisa V. Pirutko^a, Anna V. Starostina^{a,b}, Igor P. Asanov^{b,c}, Evgenii Modin^d, Andrey L. Chuvilin^{d,e}, Neeraj Gupta^f, Alexander V. Okotrub^{b,c}, Lyubov G. Bulusheva^{b,c,*}

^a*Boreshkov Institute of Catalysis, SB RAS, Novosibirsk, 630090, Russia*

^b*Novosibirsk State University, Novosibirsk, 630090, Russia*

^c*Nikolaev Institute of Inorganic Chemistry, SB RAS, Novosibirsk, 630090, Russia*

^d*CIC nanoGUNE Consolider, San Sebastian, 20018, Spain*

^e*IKERBASQUE, Basque Foundation for Science, Bilbao, 20013, Spain*

^f*Shoolini University, Solan (HP), 173212, India*

E-mail address: dmitri.bulushev@catalysis.ru (D.A. Bulushev)

bul@niic.nsc.ru (L.G. Bulusheva)

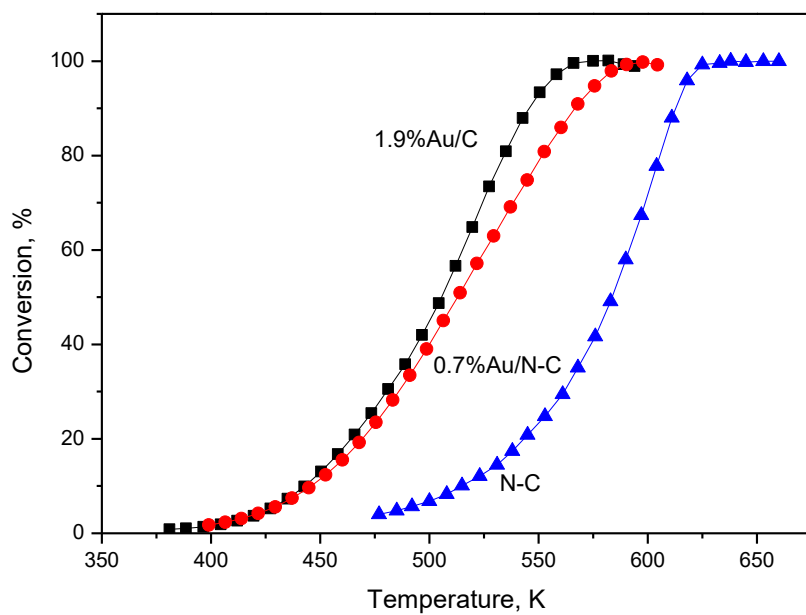


Figure S1. Comparison of the conversion-temperature curves for formic acid decomposition over the N-doped and N-free Au catalysts and N-doped carbon support (50 mg).

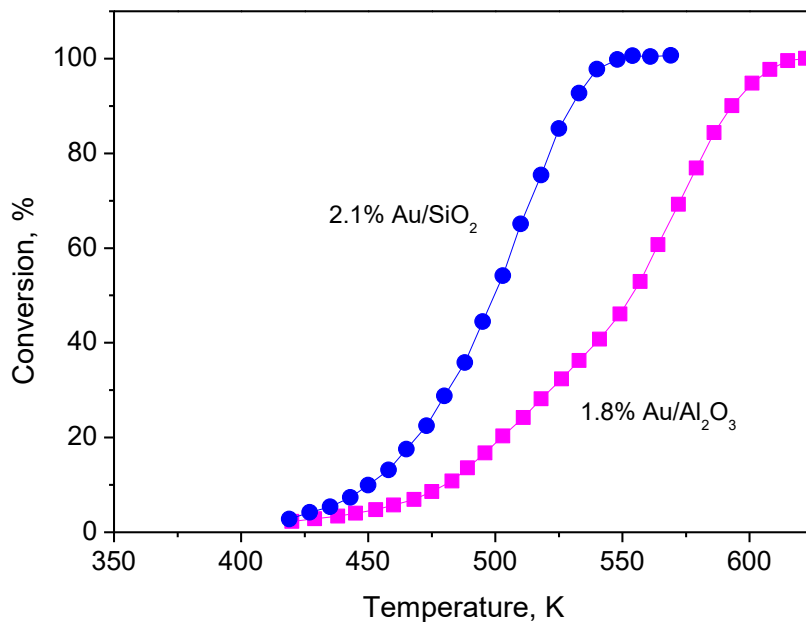


Figure S2. Comparison of the conversion-temperature curves for formic acid decomposition over Au catalysts supported on SiO₂ and Al₂O₃ (20 mg).

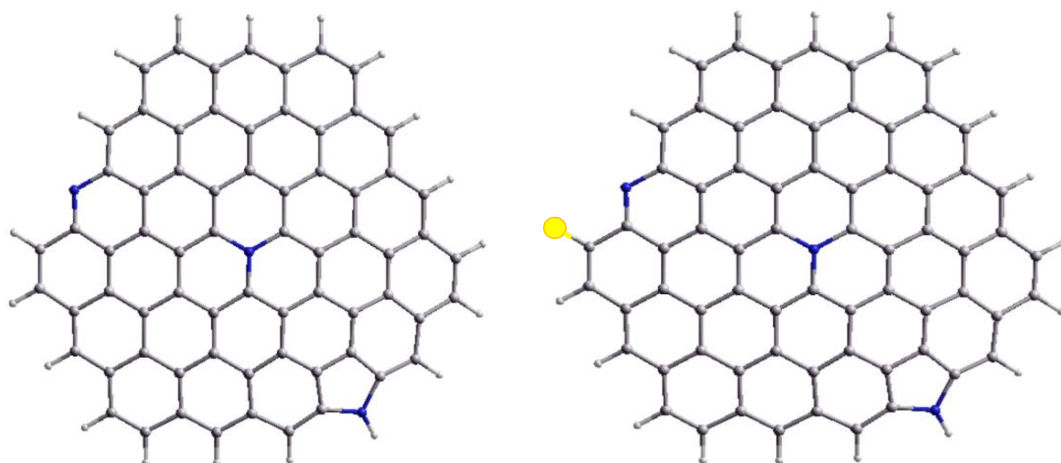


Figure S3. Initial N-graphene and Au-N-graphene fragments used for DFT calculations (C-gray, N-blue, H-white, Au-yellow).