

Improving the Photocatalytic Activity of s-triazine Based Graphitic Carbon Nitride through Metal Decoration: An *ab initio* Investigation

K. Srinivasu, Brindaban Modak and Swapan K. Ghosh*

Theoretical Chemistry Section, Bhabha Atomic Research Centre

and Homi Bhabha National Institute, Mumbai, India

E-mail: skghosh@barc.gov.in

Table S1: The calculated energy difference between the impurity state maximum and Fermi level ($\Delta(I-F)$) and Fermi level and Conduction band minimum ($\Delta(F-C)$) from the HSE03 functional.

System	$\Delta(I-F)$	$\Delta(F-C)$
PCN-Sc	0.14	0.16
PCN-Ti	0.15	0.02
PCN-V	0.22	0.22
PCN-Cr	0.09	0.09
PCN-Mn	0.09	0.12
PCN-Fe	0.11	0.15
PCN-Co	0.27	0.33
PCN-Ni	0.15	0.15
PCN-Cu	0.11	0.12
PCN-Zn	0.24	0.24
PCN-Ag	0.06	0.06
PCN-Au	0.06	0.07
PCN-Pt	0.24	0.37
PCN-Pd	0.10	0.11

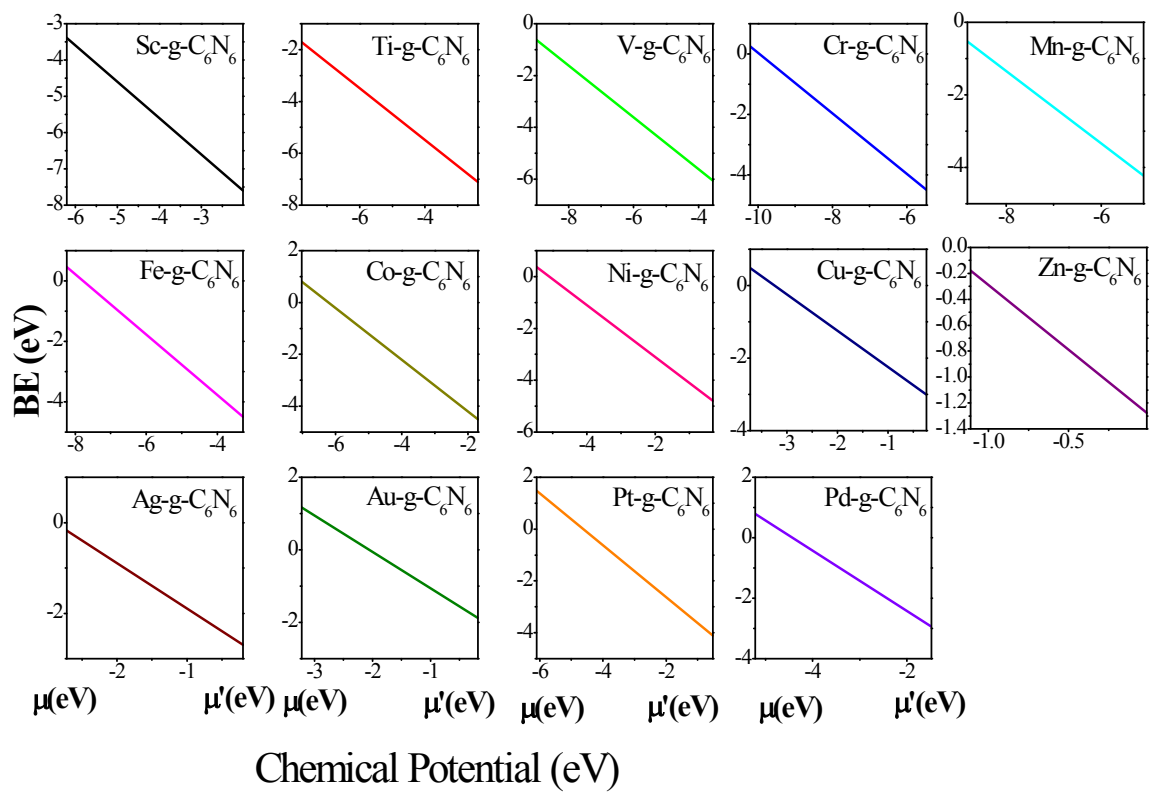


Figure S1: Variation of metal binding energy to the g-C₃N₃ surface with the chemical potential of the metal varied from bulk metal to isolated metal atom.