

Supporting information for

Tuning Graphene Moiré Superstructures on the Ru(0001) by Rotating the Graphene Layer

Leining Zhang,^{a,b} Jichen Dong,^a Zhaoyong Guan,^{a,c} Xiuyun Zhang,^{a,d} Feng Ding,^{a,b,*}

^aCentre for Multidimensional Carbon Materials, Institute for Basic Science, Ulsan 44919, Korea

^bSchool of Materials Science and Engineering, Ulsan National Institute of Science and Technology, Ulsan 44919, Korea

^cSchool of Chemistry and Chemical Engineering, Shandong University, Jinan 250100, P. R. China

^dCollege of Physics Science and Technology, Yangzhou University, Yangzhou 225002, China

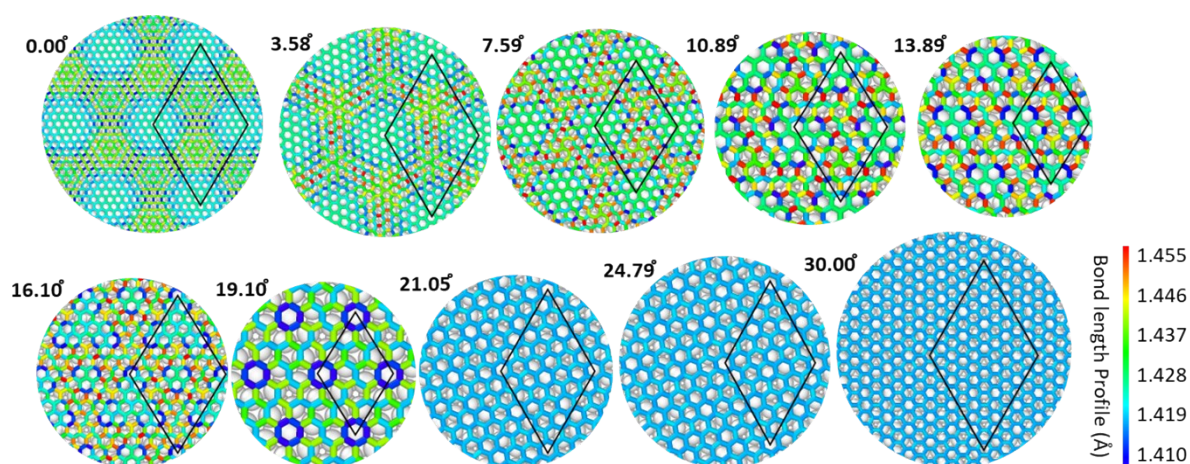


Fig. S1 The C-C bond length profiles in different graphene moiré superstructures on the Ru(0001) surface.

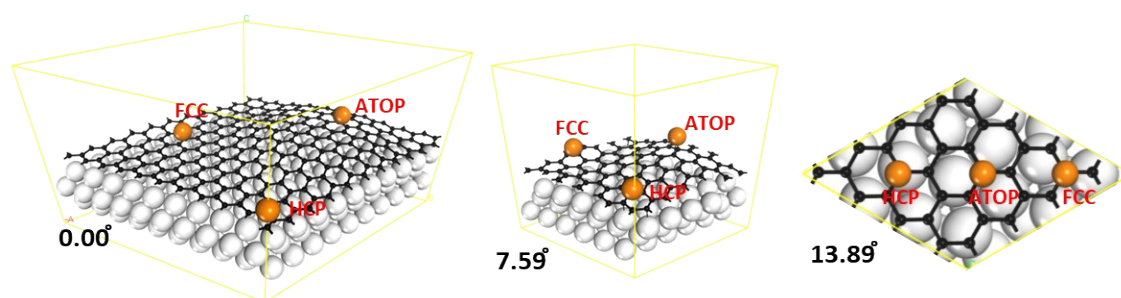


Fig. S2 Perspective or top views of a Pt atom adsorbed at different sites of G/Ru(0001) superstructures.

Table S1. The adsorption energies (eV) of a Pt atom at different sites of G/Ru(0001) superstructures versus the rotation angles.

	0.00°	7.59°	10.89°	13.89°	19.10°	30.00°
ATOP	2.11	2.31	2.67	2.59	2.96	2.09
HCP	2.92	2.80	2.56	2.55	3.00	2.13
FCC	3.36	2.99	3.05	2.90	2.99	2.13