

Supporting Information

Liu et al. 10.1073/pnas.1602473113

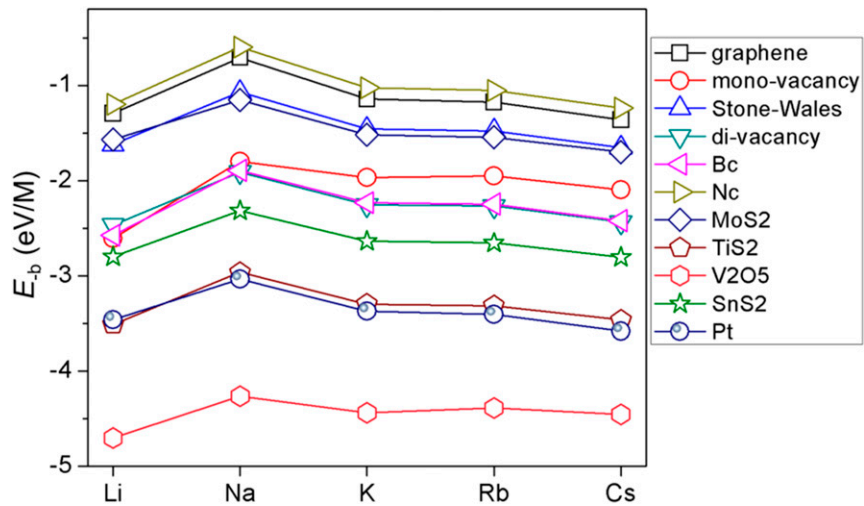


Fig. S1. E_b for alkali metals binding to various substrates.

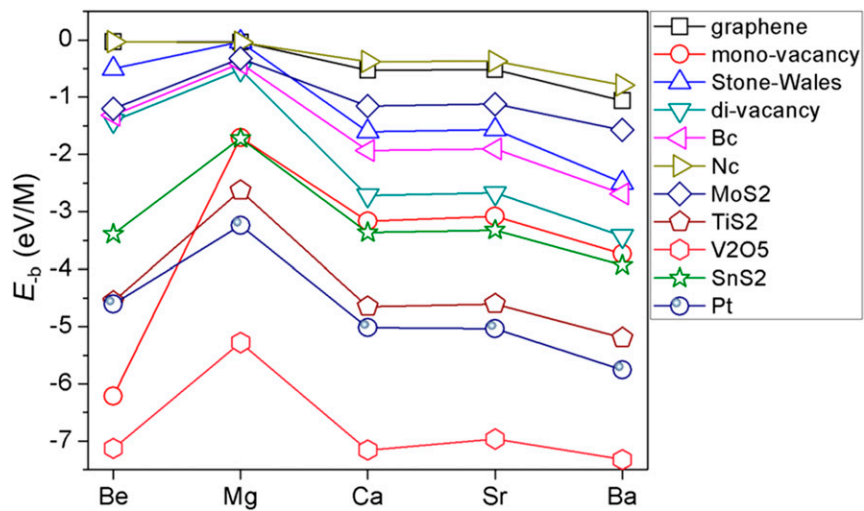


Fig. S2. E_b for alkaline earth metals binding to various substrates.

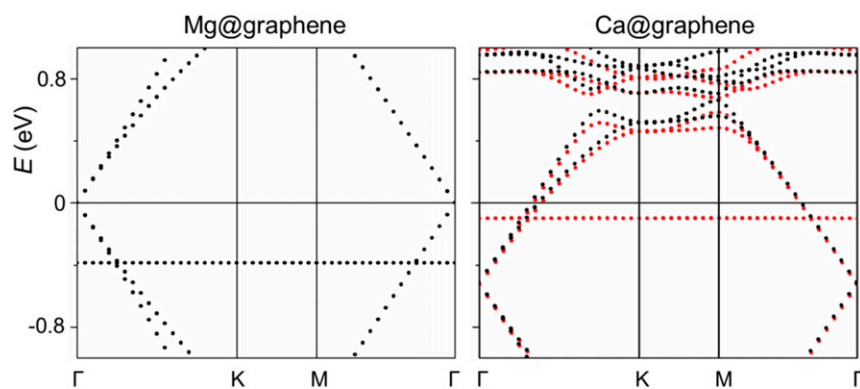


Fig. S3. Band structures of Mg (*Left*) and Ca (*Right*) adsorbed on graphene. The systems consist of one metal and 6×6 unit cells of graphene. The spins for Ca adsorption are polarized, and hence are shown in different colors. Fermi levels are set to zero. Note that, for Mg adsorption on graphene, Fermi level retains at Direct point, indicating no charge transfer occurs.