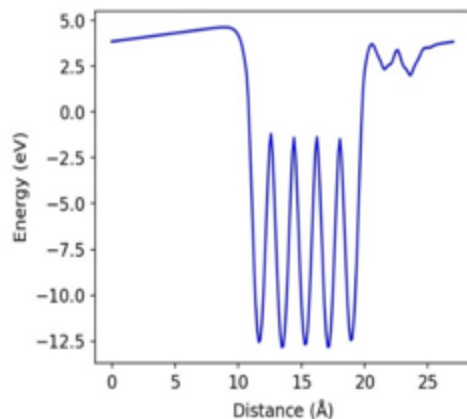


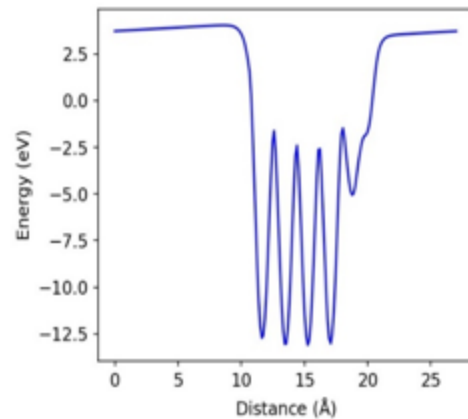
**(a) Perfect Cu (100) surface**



$$E_{\text{vac}} = 4.624 \text{ eV}$$

$$\Phi = 4.688 \text{ eV}$$

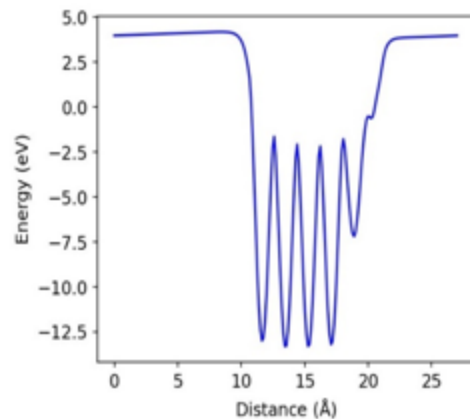
**(b) Stepped Cu (100) surface**



$$E_{\text{vac}} = 4.049 \text{ eV}$$

$$\Phi = 4.608 \text{ eV}$$

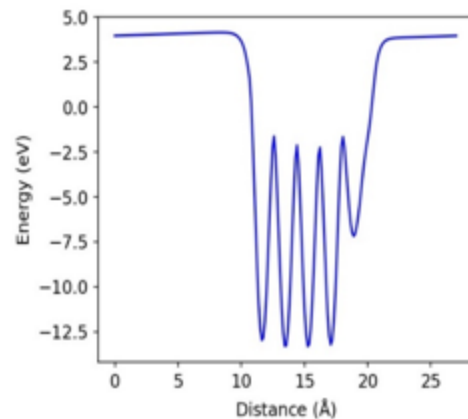
**(c) Stepped Pt-Cu (100) surface**



$$E_{\text{vac}} = 4.192 \text{ eV}$$

$$\Phi = 4.670 \text{ eV}$$

**(d) Stepped Rh-Cu (100) surface**



$$E_{\text{vac}} = 4.159 \text{ eV}$$

$$\Phi = 4.612 \text{ eV}$$