

### Supplementary Information

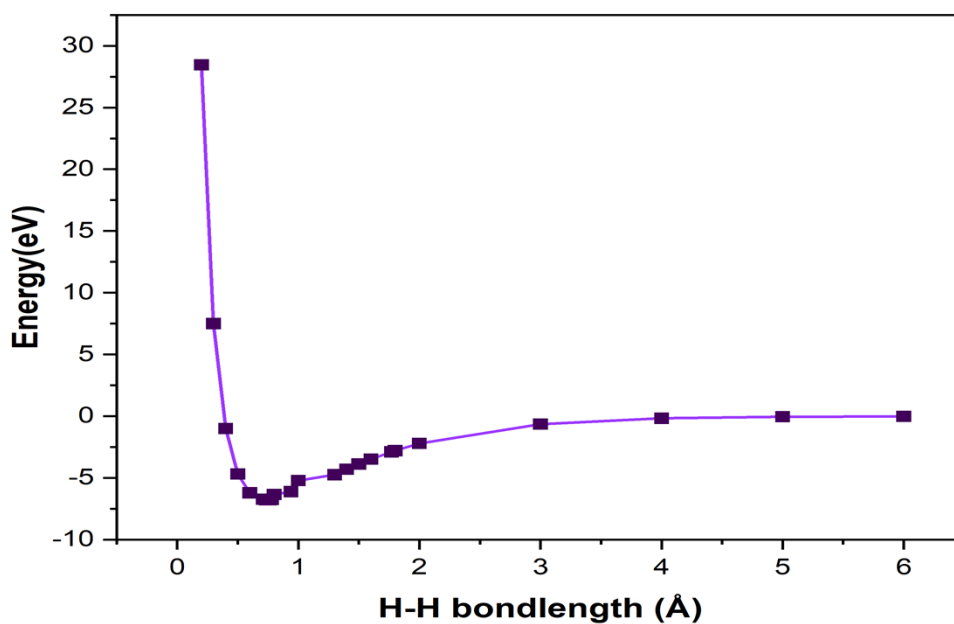


Figure S1: The dissociation curve for isolated H<sub>2</sub> molecule. The optimum bond-length came to be 0.75 Å with an energy of -6.67eV.