

- Each OLi_2 and Ni groups can adsorb upto eight and three H_2 molecules, respectively
- Different Ni bridging on $\text{C}_{12}\text{N}_{12}$ can tune the H_2 adsorption
- Aromaticity increases on Ni doping in a systematic and symmetric fashion
- The lithiated B, N doped γ -GNT can also trap upto three CO molecules