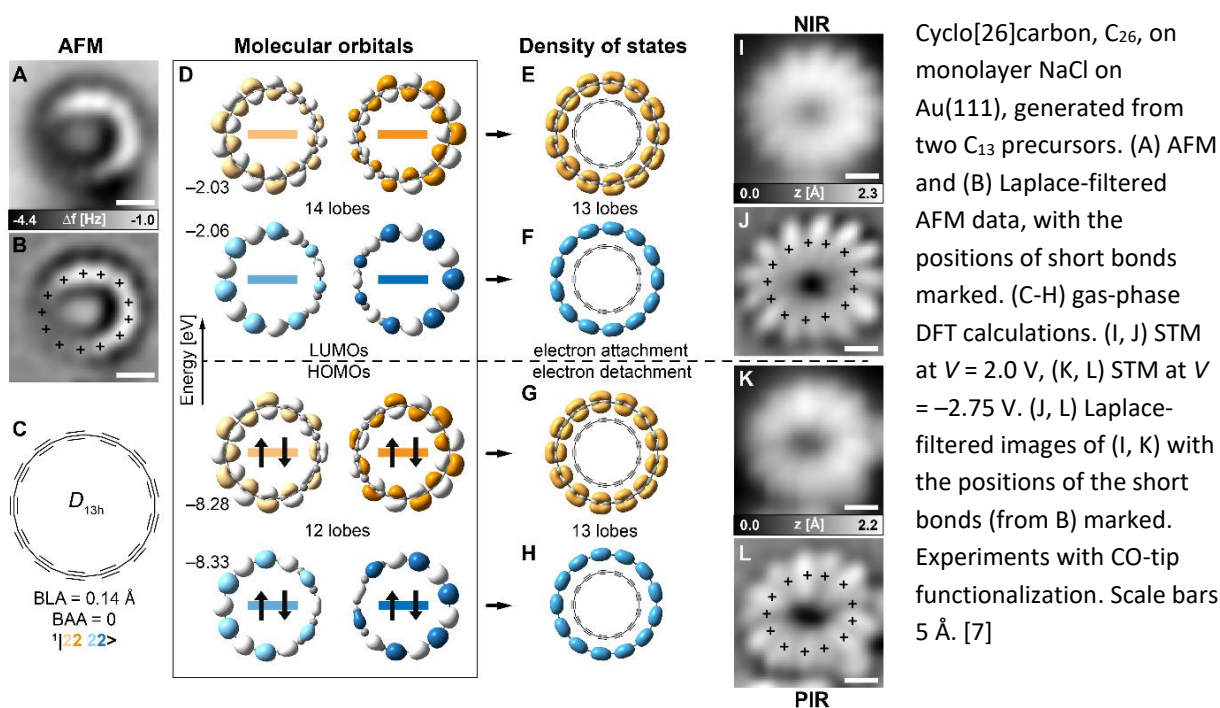


Generation and Characterization of Cyclocarbons

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The family of carbon allotropes was expanded by tip-induced synthesis and on-surface characterization of cyclo[N]carbons, C_N , molecular rings composed of N carbon atoms [1-3]. Cyclocarbons possess two orthogonal delocalized pi-systems and can undergo different Jahn-Teller distortions rendering them excellent systems for benchmarking theory [4-6]. Because they are monocyclic, they are valuable in the context of aromaticity. Even- N cyclocarbons can be doubly aromatic [1, 3] or doubly anti-aromatic [2], and can exhibit polyynic [1, 2] or cumulenic [3] structures. Odd- N cyclocarbons [5], e.g., C_{13} [7] cannot adopt a complete polyynic structure, might be open-shell systems and might feature localized carbene centres.



References

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