SFB 1249 *N*-HETEROPOLYZYKLEN ALS FUNKTIONSMATERIALIEN

UNIVERSITÄT HEIDELBERG ZUKUNFT SEIT 1386

"TAMING AND UNLEASHING THE REACTIVITY OF NANOGRAPHENE Π-RADICALS"

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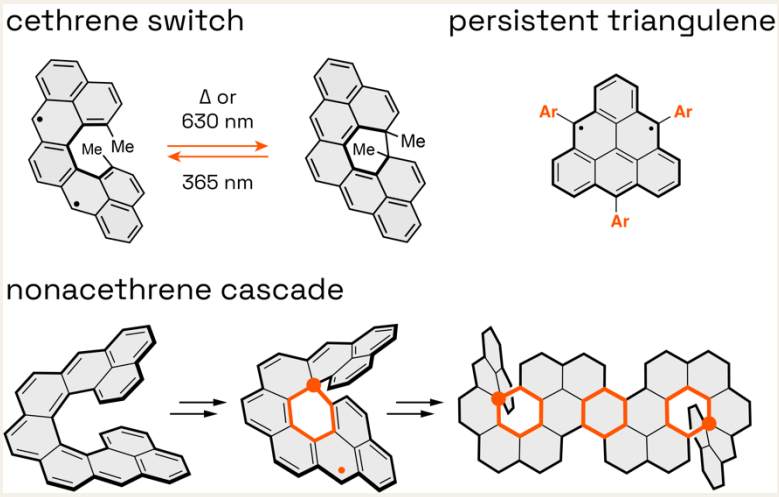
Open-shell nanographenes are envisioned as promising future materials, in which spin interactions between unpaired electrons enable control of quantum information or induce magnetism, features sought-after in spintronics and quantum molecular science. Our research team designs and develops methods to make synthetic nanographene π-radicals and explore the fundamental aspects of their properties and reactivity. We utilize the presence of unpaired electrons in conceptually two different ways: we use it to create function as well as a synthetic tool to access complex graphene-based nanostructures, which requires development of synthetic strategies to control the reactivity of these systems. The presentation will include our recent demonstrations1–4 of these concepts.



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3. L. Valenta, M. Mayländer, P. Kappeler, O. Blacque, T. Šolomek, S. Richert, M. Juríček, *Chem. Commun.* **2022**, *58*, 3019–3022.
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