“Alkyne Annulations: A Toolkit for Accessing Chemical Diversity from Terpenoids to Conjugated Materials”

Résumé: Readily available alkyne-containing compounds are attractive as high-energy starting materials that allow an efficient, step- and atom-economical synthesis of a host of useful chemical products. Alkynes and polyynes can be used as linchpins in multicomponent and tandem reactions to provide rapid access to biologically pertinent terpenoid scaffolds. The alkyne functional group also allows for the facile synthesis of novel nanographenes and contorted – even chiral – polycyclic aromatics. Alkynes even allow for a mild, non-oxidative (non-Scholl) bottom-up synthesis of atomically precise graphene nanoribbons (GNRs).