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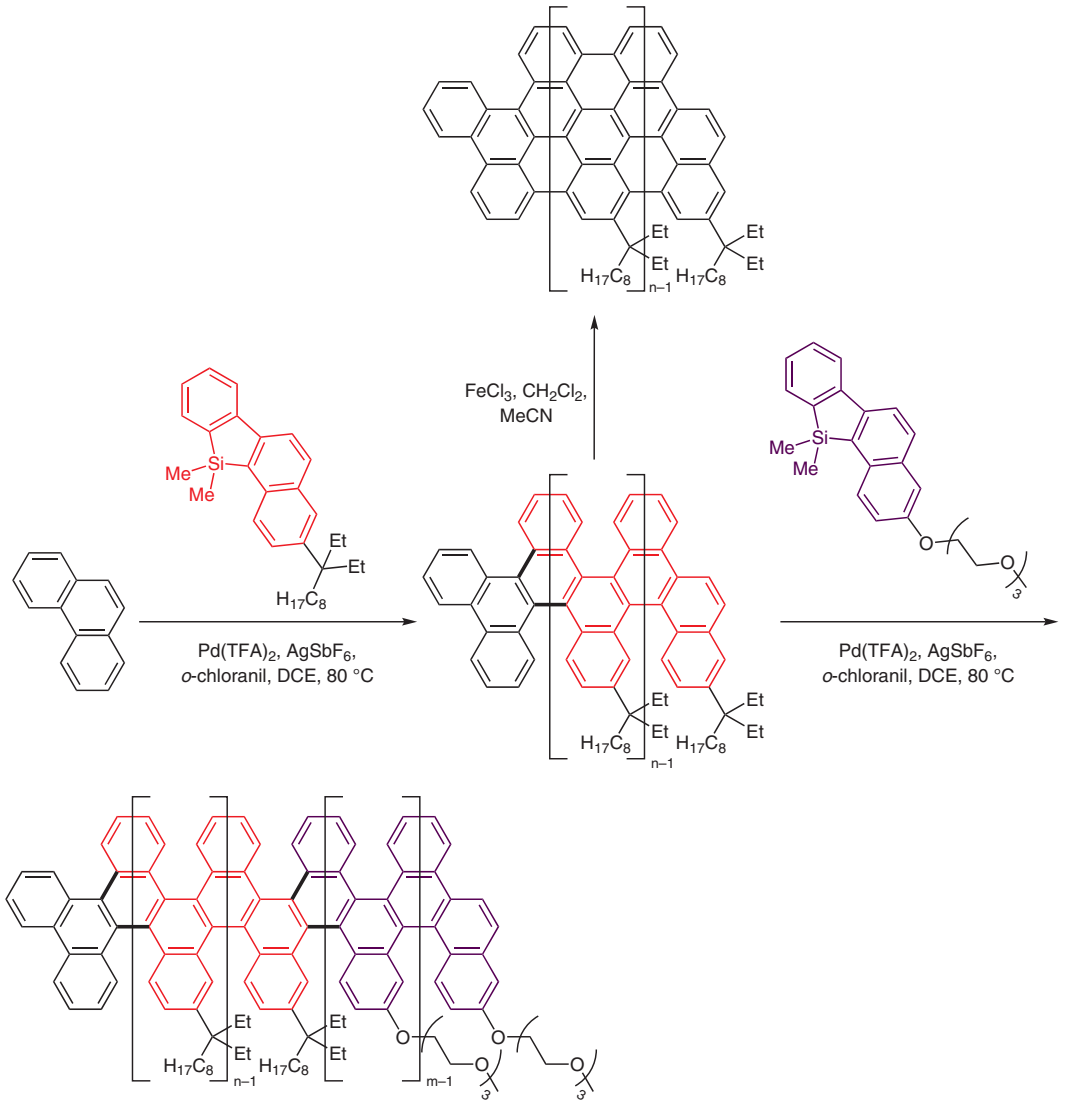
Living Annulative π-Extension Polymerization for Graphene Nanoribbon Synthesis
Nature **2019**, *571*, 387–392.

Reaching the APEX in Controlled Synthesis of 2D Nanomaterials



Significance: A living method to grow narrow dispersity fjord-type graphene nanoribbons (as low as Đ = 1.03) with controlled degree of polymerization (7–391) is disclosed. Scholl oxidation of this precursor affords armchair-type nanoribbons, whereas further polymerization affords block copolymers.

Comment: The precise control over structure affords the opportunity to make block copolymers with conjugated (e.g., different benzonaphthosiloles) or nonconjugated (e.g., functionalized initiators) blocks, which could lead to interesting optoelectronic or physical/self-assembly properties.

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Synfacts 2019, 15(09), 0993 Published online: 20.08.2019
DOI: 10.1055/s-0039-1690591; **Reg-No.:** S07719SF

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Category
Synthesis of Materials and Unnatural Products

Key words
graphene nanoribbons
living annulative π-extension polymerization
block copolymers

Synfact of the Month

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