

Cycloaddition–Retro-Electrocyclization Click Reaction of Amine End-Capped Oligoynes with Tetracyanoethylene

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Streszczenie

This study shows the first example of cycloaddition–retro-electrocyclization (CA-RE) click reaction involving nitrogen end-capped push-pull oligoynes. The reported CA-RE reaction with TCNE (tetracyanoethylene) is fully regioselective and leads exclusively to the unprecedented TCBD (tetracyanobuta-1,3-diene-2,3-diyl) end-capped carbon rods. The molecular structure of the products was unambiguously confirmed using X-ray single crystal diffraction and their optical and electronic properties were investigated experimentally and rationalized using DFT (density functional theory) calculations.

Słowa kluczowe

alkynes, cycloadditions, oligoynes, retro reactions, TCNE

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