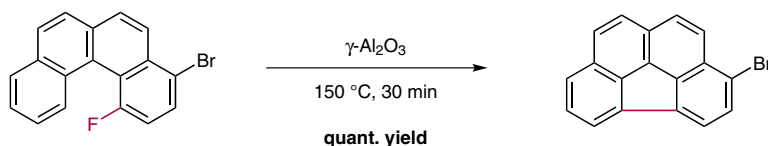


O. PAPAANINA, V. A. AKHMETOV, A. A. GORYUNKOV, F. HAMPEL, F. W. HEINEMANN, K. Y. AMSHAROV* (LOMONOSOV MOSCOW STATE UNIVERSITY, RUSSIA AND FRIEDRICH ALEXANDER UNIVERSITY ERLANGEN-NUREMBERG, GERMANY)
Synthesis of Rationally Halogenated Buckybowls by Chemoselective Aromatic C–F Bond Activation
Angew. Chem. Int. Ed. **2017**, *56*, 4834–4838.

Chemoselective Aryl–Aryl Coupling through C–F Bond Activation



Selected examples:

Starting material	Product	Yield
		96% yield
		95% yield
		98% yield
		92% yield

Significance: Bowl-shaped polycyclic aromatic hydrocarbons have emerged as intriguing building blocks for organic electronic materials. The large strain induced by the curved π -system has thus far only been overcome under harsh conditions that are intolerant to functional groups. In this work, the authors demonstrate directed intramolecular aryl–aryl coupling through C–F bond activation.

Comment: This aryl–aryl coupling method selectively activated C–F bonds in the presence of other halogens, thus allowing further modification after the cyclization. Yields are near quantitative and operationally facile. Several crystal structures have been obtained and properties evaluated through DFT studies.

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