

POLYFLUOROAROMATICS. THE INTERRELATED CHEMISTRY OF
BARRELENES, ANTHRACENES AND VIS-à-VISENES

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Tetrafluoro - and octafluorodibenzobarrelenes (**1,2**) are readily prepared by reaction of tetrafluorobenzynes (from C_6F_5MgBr) with naphthalene and tetrafluoronaphthalene, respectively. Cycloaddition (4+2) of tetracyclone to **1** and **2** at 180° leads to the polyfluoroanthracenes (**3,4**) in high yields. The reactions of dibenzobarrelenes with anthracenes (with fluorine in either reactant) afford the vis-à-visenes (née janusenes) **5** and **6**, in which phenyl and tetrafluorophenyl rings are disposed in a close facial relationship. Compound **5**, which is formed in regiospecific reactions, exhibits an ultraviolet spectrum characteristic of a donor-acceptor interaction between proximate $-C_6H_4-$ and $-C_6F_4-$ rings. NMR spectra also support the structure of **5**.

