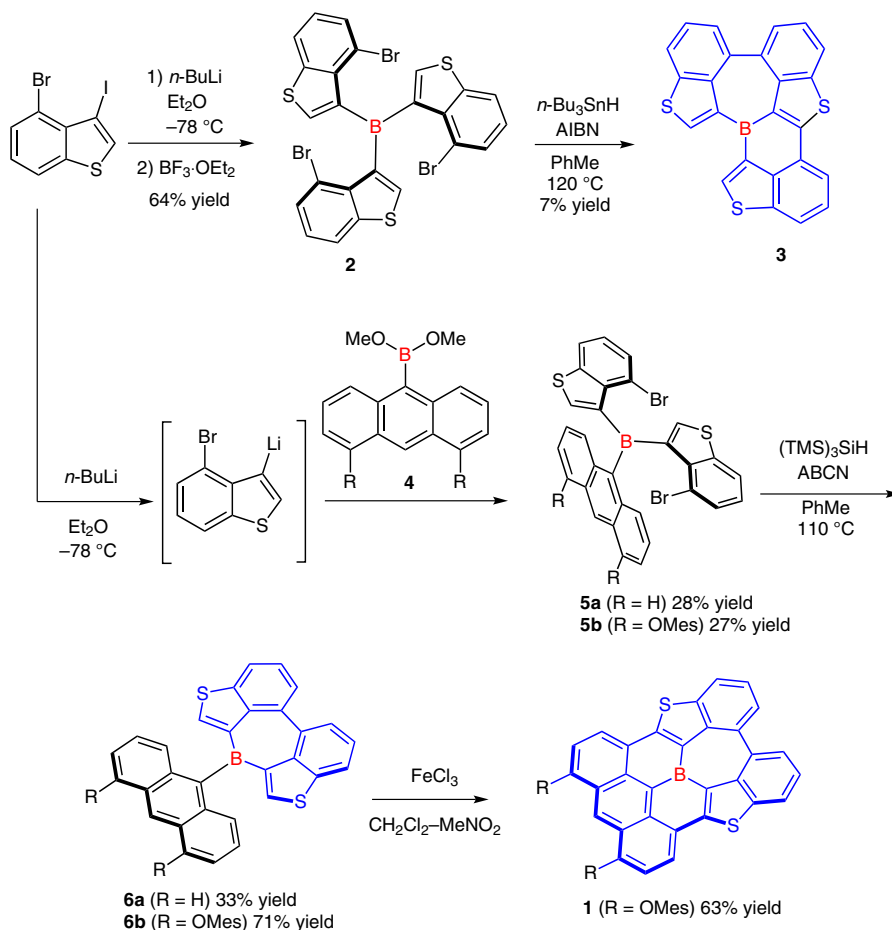


S. SAITO,* K. MATSUO, S. YAMAGUCHI* (NAGOYA UNIVERSITY AND JST-CREST, NAGOYA, JAPAN)

Polycyclic π -Electron System with Boron at Its Center*J. Am. Chem. Soc.* **2012**, *134*, 9130–9133. π -Conjugated Polycycle Containing Boron

Significance: Triarylboranes have been a subject of extensive studies for electronic applications. This paper reports the synthesis, photophysics and crystal structure of new planarized triarylboranes in which the boron atom is embedded in a 10-ring-fused π -conjugated polycycle. Precursor **6** is obtained via radical-promoted intramolecular homocoupling of **5**. The oxidative cyclization only proceeds when using **6b** to give the final product, **1**, in good yield. The new molecule is reported to be highly stable toward oxygen and water.

Comment: Unlike previously reported triarylboranes, polycycles **1** exhibit a broad absorption band that spans the visible region from 400 nm to 730 nm. The crystal structure shows that the conjugated polycycle is relatively planar and forms a face-to-face π -stacking with a short interplanar distance of 0.35 nm despite the bulky Mes groups.

SYNFACTS Contributors: Timothy M. Swager, Eilaf Ahmed
Synfacts 2012, 8(8), 0850 Published online: 19.07.2012

DOI: 10.1055/s-0032-1316721; **Reg-No.:** S06712SF

2012 © THIEME STUTTGART • NEW YORK