## Category

Synthesis of Materials and Unnatural Products

## **Key words**

acenes
semiconductors
conjugation



## **Acenes One Ring at a Time**

Significance: Higher acenes have emerged as a very important class of organic semiconductors. This approach to their synthesis proceeds in high efficiency and yields final products with electronwithdrawing groups attached to the acenes. The electron-withdrawing groups are of interest for increased stability in air as well as the ability to create materials capable of transporting electrons. In total, 28 different extended acenes were synthesized.

**Comment:** It was demonstrated that higher acenes can be produced by this method from protected pentacenes and heptacenes. This feature plus the stability imparted by the electron-withdrawing groups suggests that this method may allow for superior access to higher acenes that are of interest for investigations of organic field-effect transistors.

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