

## A Cation Sensor: All Saddled Up

Category

Synthesis of  
Materials and  
Unnatural Products

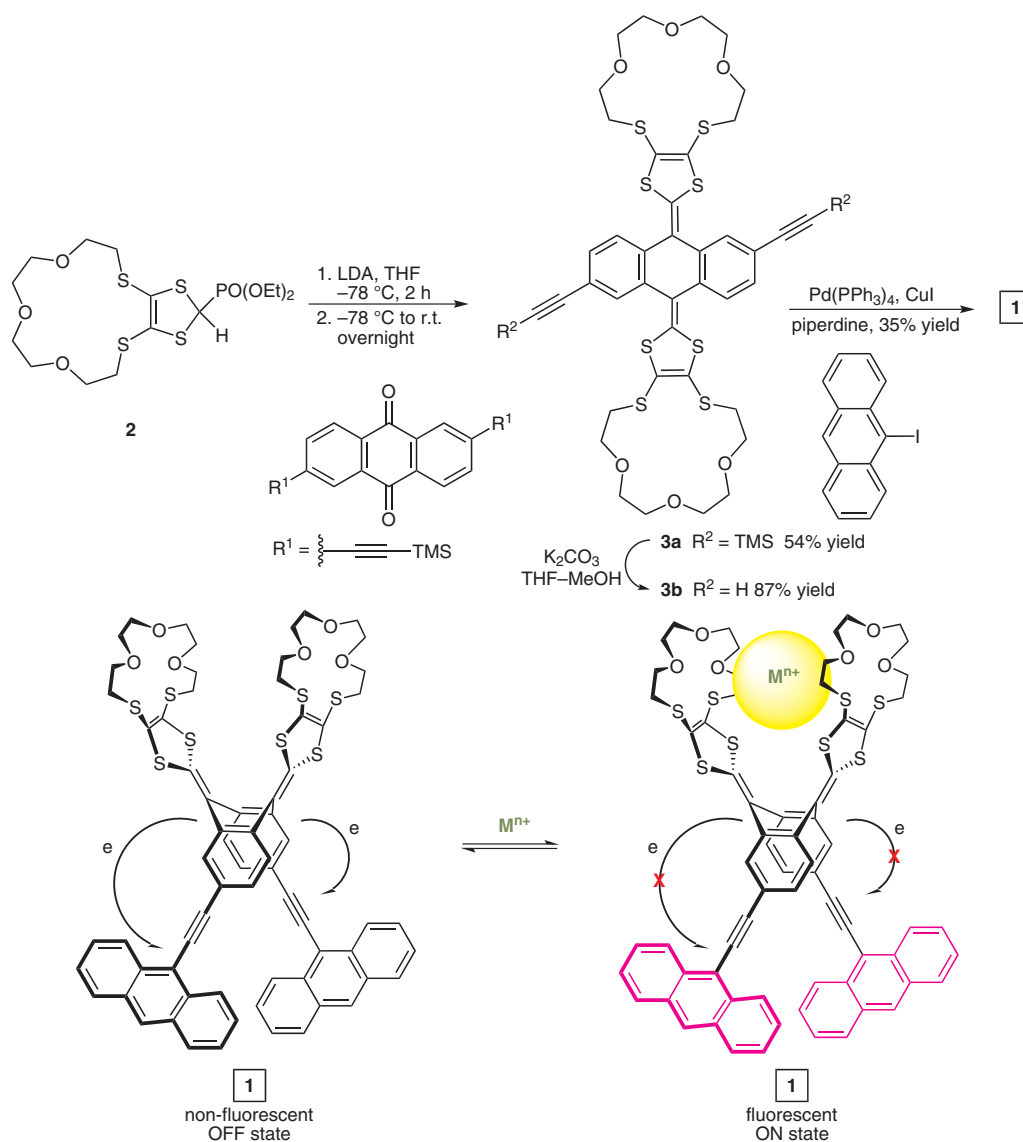
Key words

host-guest systems

cations

fluorescence

**SYNFACT**  
*of the month*



**Significance:** Anthraquinodimethane-type extended tetrathiafulvalenes (TTFAQs) are known for having a rigid, non-planar, saddle-like structure in the neutral state. Here the authors demonstrate the ability of this class of extended tetrathiafulvalenes to act as selective metal cation sensors, in particular Ba<sup>2+</sup>.

**Comment:** Uncomplexed **1** shows a quenched fluorescence due to electron transfer between the electron-donating, thiafulvalene-containing unit, and the electron-accepting anthracenes. The reduced electron-donating capabilities experienced upon crown ether-cation binding, suppresses the electron transfer, 'turning on' fluorescence.

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