

# Environmental Science journals

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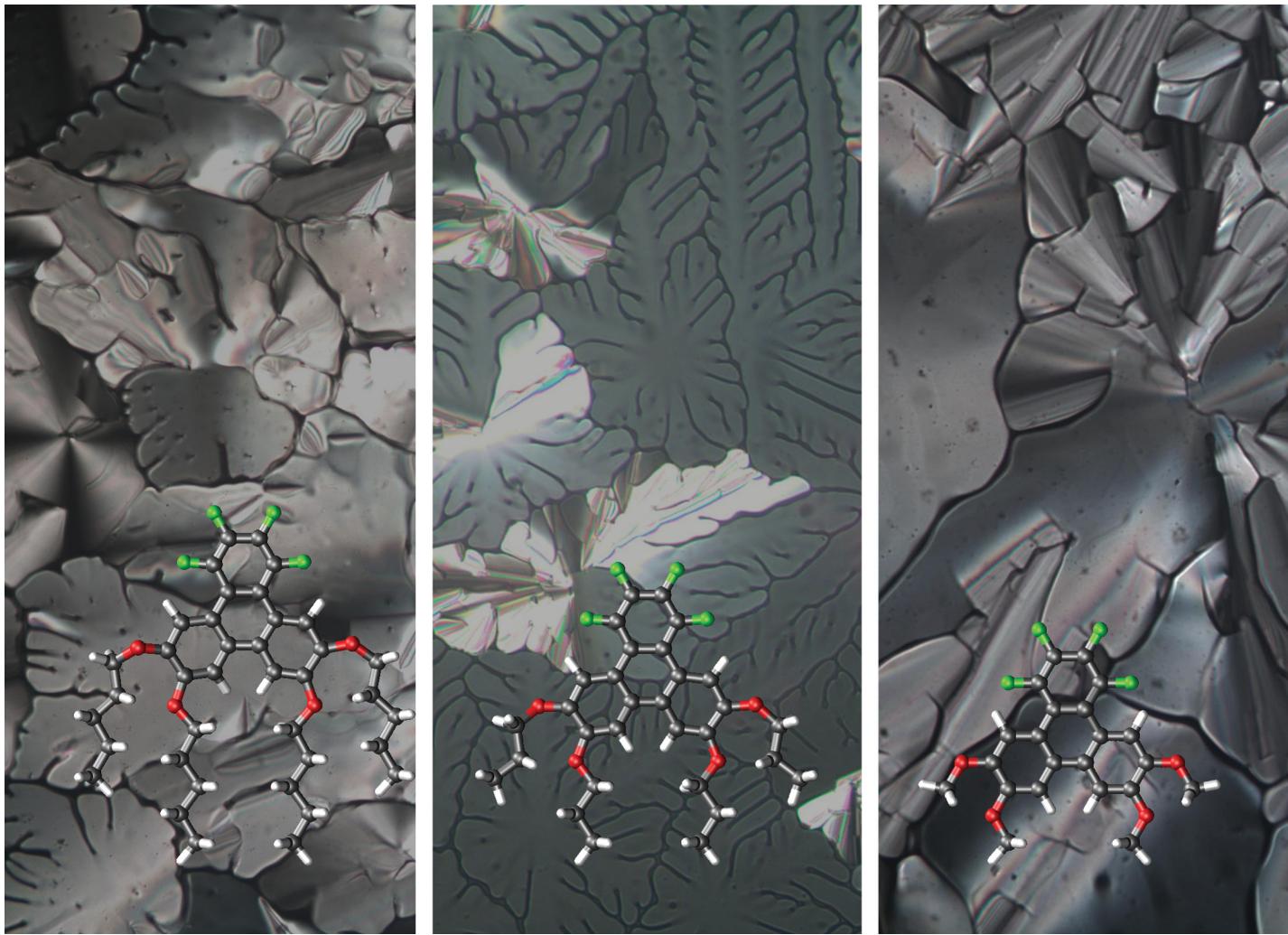
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Fundamental questions  
Elemental answers



Registered charity number: 207890



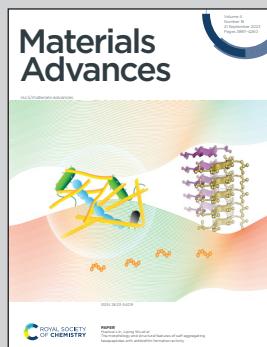
Showcasing research from Professor Twieg's laboratory,  
Department of Chemistry and Biochemistry,  
Kent State University, Kent, Ohio, USA.

Vanishing tails and a resilient mesophase: columnar liquid crystals in the limit of short tails.

Discotic liquid crystals typically feature long flexible tails that provide much of their liquid-like behavior. While these tails are effective for supporting liquid crystal mesophases, they limit potential applications for these materials. In this work, we present a series of compounds with progressively shorter tails, which feature liquid crystalline behavior even as the tails become vanishingly short. These compounds may lead to insights into molecular design for future liquid crystals with enhanced properties and new potential applications.

Image credit: Mitchell Powers

### As featured in:



See Parikshit Guragain *et al.*,  
*Mater. Adv.*, 2023, **4**, 4129.