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Title:	High hole mobility in room temperature discotic liquid crystalline tetrathienoanthracenes
Authors:	Bala, I. (/jspui/browse?type=author&value=Bala%2C+I.) De, J. (/jspui/browse?type=author&value=De%2C+J.) Singh, Harpreet (/jspui/browse?type=author&value=Singh%2C+Harpreet) Pal, S.K. (/jspui/browse?type=author&value=Pal%2C+S.K.)
Keywords:	Liquid crystals Columnar mesophases Hole mobility Space-charge-limited current Discotics
Issue Date:	2020
Publisher:	Royal Society of Chemistry
Citation:	Chemical Communications, 56(42), pp.5629-5632.
Abstract:	Tetrathienoanthracene (TTA), a new discotic core fragment, is explored that shows a remarkably high hole mobility (μ_h) of $4.22 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$ at room temperature when used in space-charge limited current (SCLC) devices. Strong co-facial interactions (π - π , S...S) among TTA cores along with a high tendency of the derivative to align homeotropically in the columnar mesophase over a large area in SCLC cells contributed to the top-class charge carrier mobility.
Description:	Only IISERM authors are available in the record.
URI:	https://pubs.rsc.org/en/content/articlelanding/2020/CC/D0CC01226B#!divAbstract (https://pubs.rsc.org/en/content/articlelanding/2020/CC/D0CC01226B#!divAbstract) http://hdl.handle.net/123456789/3363 (http://hdl.handle.net/123456789/3363)
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