



Sekce chemie PŘF UK v Praze
zve všechny zájemce na přednášku z cyklu

Quo Vadis Chemie

Multigram Synthesis, Properties and Chemistry of [n](2,11)Teropyrenophanes - a Family of Aromatic Half-Belts



kterou přednese

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dne 20.3. v 15:00 hod.

v posluchárně CH2, v budově chemických kateder PŘF UK
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Abstrakt:

As part of our ongoing efforts aimed at the synthesis of aromatic belts (small slices of armchair single-walled carbon nanotubes), we have recently reported the synthesis of a series of 1,1,*n,n*-tetramethyl[*n*](2,11)teropyrenophanes.^{1,2}

With an eye to gaining access to gram quantities of the 1,1,*n,n*-tetramethyl- [*n*](2,11)teropyrenophanes, a heavily modified synthetic pathway has been

developed. To date, more than 3 g of 1,1,9,9-tetramethyl[9](2,11)teropyrenophane **1** has been synthesized and it has been found to undergo electrophilic aromatic bromination with high regioselectivity to afford tetrabromide **2**. This has enabled the synthesis of more elaborate systems **3** via Suzuki-Miyaura and Sonogashira cross-coupling reactions. Details of this work and preliminary efforts synthesize much larger nonplanar aromatic systems will be presented.

1. Merner, B. L.; Dawe, L. N.; Bodwell, G. J. *Angew. Chem. Int. Ed.* **2009**, 48, 5487–5491.

2. Merner, B. L.; Unikela, K. S.; Dawe, L. N.; Thompson, D. W.; Bodwell, G. J. *Chem. Commun.* **2013**, 49, 5930–5932.

