Quo Vadis Chemie

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

Dr. Graham J. Bodwell

Memorial University St. John’s, Canada

dne 20.3. v 15:00 hod.
v posluchárně CH2, v budově chemických kateder PřF UK
Hlavaova 8, Praha 2

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].

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.