Category

Synthesis of Materials and Unnatural Products

Key words

annulation

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Synthesis of Functionalizable Boron Containing π -Electron Materials that Incorporate Formally Aromatic Fused Borepin Rings

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Stable Borepin Rings

Significance: A versatile synthesis of polycyclic six π -electron borepin rings is described. In the key step the normally unstable borepin ring is 'trapped' using a bulky 2,4,6-triisopropylphenyl group (e.g., in the formation of 1) allowing for further synthetic elaboration under ambient conditions. The authors report several examples of these novel heterocycles in addition to the fused diborepin 2 shown above.

Comment: The reported family of stable and planar borepins may prove to be a useful precursor in the construction of new electronic materials.

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