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## **Synthesis and Characterization of Helicene-Based Imidazolium Salt**

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## SYNTHESIS AND CHARACTERIZATION OF HELICENE-BASED IMIDAZOLIUM SALT

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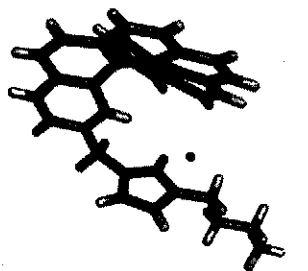
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Helicenes are functional molecules with broad spectrum of applications in physical and (bio)chemical research and development [1]. Today, we are focused on synthetic approaches for preparation of helicene derivatives and conjugates leading to novel compounds with unique properties. A helicene-based imidazolium salt was synthesized starting from 2-methyl[6]helicene which undergoes radical bromination providing 2-(bromomethyl)[6]helicene. The subsequent treatment with 1-butylimidazole leads to corresponding bromide salt. The product prepared (Fig. 1) was consequently fully characterized from chemico-physical point of view using NMR and X-ray analysis, various spectrometric approaches, especially fluorescence spectroscopy, and electrochemical tools as chronopotentiometry and voltammetry. Here we present the first evidence of ionic fluid (molten salt) based on helicene substitution.

Fig. 1: The molecular structure of 1-butyl-3-([6]helicen-2-ylmethyl)imidazolium bromide



### Reference:

[1] Gingras M., *Chem. Soc. Rev.*, **2013**, 42, 1051.

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