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

Žádný, Jaroslav  
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## SYNTHESIS AND CHARACTERIZATION OF HELICENE-BASED IMIDAZOLIUM SALT

Jaroslav Žádný<sup>1</sup>, Jan Vacek<sup>\*,2</sup>, Renata Večerková<sup>2</sup>, Martin Kubala<sup>3</sup>, Jan Sýkora<sup>1</sup>,  
Vladimír Církva<sup>1</sup>, Jan Storch<sup>\*,1</sup>

<sup>1</sup>Institute of Chemical Process Fundamentals of the AS CR, v.v.i., Praha 6, 165 02,

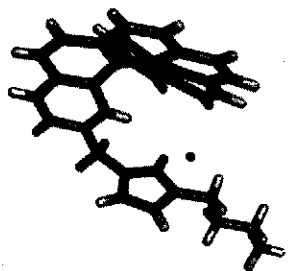
<sup>2</sup>Department of Medical Chemistry and Biochemistry, Faculty of Medicine, Palacký  
University, Hněvotínská 3, Olomouc, 775 15

<sup>3</sup>Department of Biophysics, Faculty of Science, Palacký University, tr. 17. listopadu  
12, CZ-77146 Olomouc, Czech Republic

\*e-mail: [storchj@icpf.cas.cz](mailto:storchj@icpf.cas.cz), [jan.vacek@upol.cz](mailto:jan.vacek@upol.cz)

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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