

Bolaform liquid crystals based on imidazolium salts

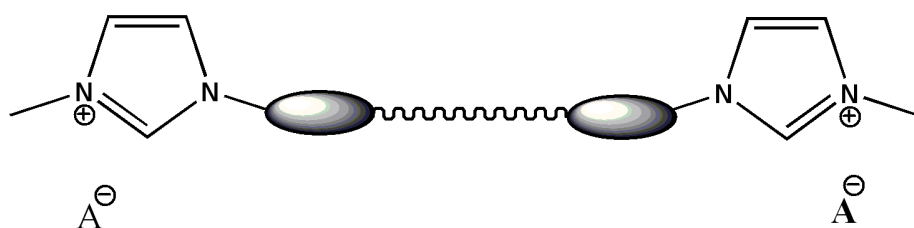
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Nowadays there is considerable research activity in the fields of ionic liquid crystals (ILCs). This field associates properties of liquid crystals and ionic liquids to lead to a wide range of new materials. Among the ionic liquids (ILs) described in the literature, the most widely known are those containing an imidazolium cation, which can display low melting points, low volatility, nonflammability, high chemical and radiochemical stability, tunable conductivity, and wide electrochemical windows.^[1,2] Despite growing interest for ILCs based on imidazolium salts, very few of them are comprised of two mesogenic units separated by flexible spacers. This poster will highlight our developed and optimized methodologies to synthesize a bromide methyl imidazolium salt, which has been obtained in four steps with an over-all yield of 72%. And also outline our progress toward preparing a new range of compounds by metathesis reaction of bromide by cyanometallates, which exhibit mesomorphic properties. Their characteristics have been determined and are reported herein.

References

- (1) H. Ohno, *Electrochemical Aspects of Ionic Liquids*, Wiley-Interscience, New York, **2005**
- (2) P. Wasserscheid, T. Welton, *Ionic Liquids in Synthesis*, Wiley-VCH, Weinheim, **2003**



 : mesogenic units

A^{\ominus} : anions

 : flexible spacers - alkyl chains