

**NEW 1-ALKYL-3-(2,3,4,6-TETRA-O-ACETYL- β -D-GLUCOPYRANOSYL)
IMIDAZOLIUM BROMIDES**

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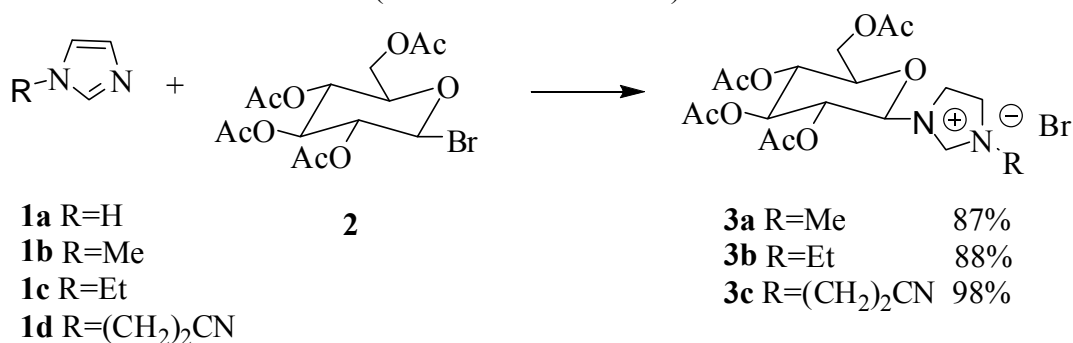
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Glucopyranoside-incorporated imidazolium bromides can exhibit interesting ionic liquid properties, and the recent work on these compounds has been dedicated to the search for effective N-heterocyclic carbene (NHC) precursor [1]. Synthesis of ionic liquids generally involves construction of the organic base from an appropriate amino compound, which in the case of 1*H*-imidazole **1a** is compound **1b-1d** [2-4].

As part of a research program to examine the effect of the structural features of the N-alkyl moiety of imidazoles **1b**, **1c**, **1d** on the properties of glucopyranoside-incorporated imidazolium bromides **3a-3c**, we required 2,3,4,6-tetra-*O*-acetyl- α -D-glucopyranosyl bromide **2**.

Herein, we describe a successful synthetic approach to **3a** starting from readily available N-methylimidazole **1b** and bromide **2** (see the scheme below).



This approach should be equally applicable to synthesis of **3b** from imidazole **1c** (also available commercially). 3-(1*H*-imidazol-1-yl)propanenitrile **1d** and 2,3,4,6-tetra-*O*-acetyl- α -D-glucopyranosyl bromide **2** are also useful for construction chiral ionic liquid **3c**.

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References:

1. Nishioka T., Shibata T., Kinoshita I. *Organometallics* **2007**, 26, 1126.
2. Macaev F., Styngach E., Shargarovskii V., Bets L., Vlad L., Barba A. *Russ. J. Org. Chem.* **2010**, 46 (4), 610.