

Ionic Liquid 1-Butyl-3-Methylimidazolium Bromide as Reaction Medium for the Synthesis of Flavanones under Solvent-Free Conditions

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Abstract : Flavonoids are a large group of natural compounds which are found in many fruits and vegetables. A subgroup of these called flavanones display a wide range of biological activities, and they also have an important physiological role in plants. The ionic liquid (ILs) are compounds consisting of an organic cation with an organic or inorganic anion. Due to its unique properties such as high electrical conductivity, wide temperature range of the liquid state, thermal and electrochemical stability, high ionic density and low volatility and flammability, are considered as ecological solvents in organic synthesis, catalysis, electrolytes in accumulators, and electrochemistry, non-volatile plasticizers, and chemical separation. It was synthesized ionic liquid IL 1-butyl-3-methylimidazolium bromide free-solvent and used as reaction medium for flavanones synthesis, under several reaction conditions of temperature, time and production. The obtained compounds were analyzed by melting point, elemental analysis, IR and UV-vis spectroscopy.

Keywords : 1-butyl-3-methylimidazolium bromide, flavonoids, free-solvent, IR spectroscopy

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