

Research Results on New Ionic Liquids containing Organic Acids such as Lactic Acid was presented at the PRiME2024 Electrochemistry Autumn Meeting.

Prof. Katsuhiko Tsunashima*, has been studying on the synthesis of ionic liquids and their physicochemical properties. The presentation at this conference is about anionic ionic liquids of various organic acids, including lactic acid. Advances in research on carboxylic acid-type ionic liquids are expected to lead to the development and implementation of safer and more functional electrolytes that do not use halides, which corrode metal materials.

The Wakayama Plant Development Division will continuously provide organic acids of our main products for various fundamental R&D themes and new applications. By bringing out the potential of organic acid products, we supply our products with improved quality and expand our product line-up to enhance customer satisfaction.

Title : "Dependence of carboxylic acid anions on the physicochemical properties of tributylmethylphosphonium-type ionic liquids." ECS Transactions, 114, (6), 89-95 (2024).

PRiME2024 Electrochemistry Autumn Conference(Japan-U.S. Joint International Meeting)

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URL : <https://www.electrochem.org/prime2024>

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<https://researchmap.jp/read0146348>

《What is an ionic liquid?》

Ionic liquids, also known as "molten salts," are compounds that consist of cation and anion combinations, existing in a liquid state under normal temperature and pressure conditions. Due to their low volatility and ionic conductivity, these liquids exhibit unique physicochemical characteristics compared to typical solvents like water or organic solvents. By choosing combinations from various ion species, they can be designed as "designer solvents," customized for specific technical applications. Numerous investigations are currently underway in fields such as new solvents, batteries, medical devices, and biomass utilization. These studies continue to generate interest with the hope of creating novel and innovative applications.