

Frozen Ionic Liquid Microparticles and Nanoparticles and Methods for Their Synthesis and Use

Disclosure Number

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Technology Summary

We have discovered novel microparticles and nanoparticles prepared from solid ("frozen") ionic liquids, as well as methods for making the novel microparticles and nanoparticles. The novel microparticles and nanoparticles have a wide variety of uses. The particle size depends on processing conditions that the user may control, and the properties of the particles are "tunable." IL microparticles and nanoparticles can be considered "designer particles," because their properties may be tailored or tuned to meet specific needs, by suitably choosing the cation, the anion, or both. As just one example, their composition may be chosen to make them biodegradable, or to be robust under harsh physiological conditions.

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