

## **Development of new electron microscopy techniques using nonvolatile ionic liquids**

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Ionic liquid having ignorable vapor pressure allows us to put it in a vacuum chamber. This means that ionic liquid becomes a sample for analytical instruments requiring vacuum conditions. We discovered that ionic liquid can be observed by electron microscopes without charging of it. Based on this finding we are developing several new techniques for electron microscopy including observation of samples wetted by ionic liquid and in situ electron microscopy observation of chemical reactions taking place in the vacuum chamber.