

Fabrication of popymer / inorganic hybrids by living radical polymerization.



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Status	Associate Professor		
Affiliations			
Keywords	Polymer chemistry, Organic/inorganic hybrid		
Technical Support Skills	We develop solid electrolytes for various energy devices based on the precision synthesis of functional polymers. I can measure molecular diffusion coefficients using pulsed-gradient spin-echo NMR.		

Research Contents Fabrication of popymer / inorganic hybrids by living radical polymerization.

- Precision synthesis of various polymers by living radical polymerizations, e.g.; atom transfer radical polymerization, reversible addition fragmentation transfer polymerization.
- Surface-initiated living radical polymerization from the surface of various materials, produce a surface modification of polymer with a robust chemical bond much stronger than physisorption.
- The surface modification of polymer can be applied to various sizes (from micron-powder to nano-particle), materials, and shapes.
- We also research how to make a controlled network structure of polymer gel.



Gel permeation chromatography



Thermogravimetry (TGA/DTA)

Available Facilities and Equipment
