Glycoconjugated Hybrid Molecule/Polymer

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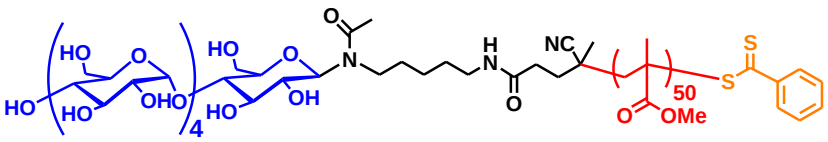
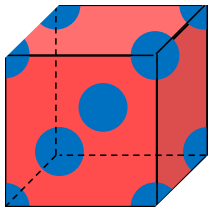
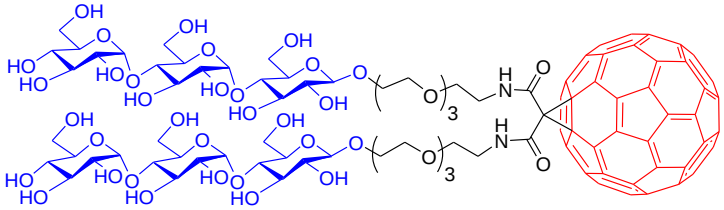


Malto-oligosaccharide-conjugated block copolymer



Body-centered cubic typed nanoscale polymeric phase transition structure with the domain of saccharide-unit



Glyco-PEG-linked fullerene as photosensitizers for photodynamic therapy (PDT).

Content:

・Glycoconjugated block copolymer with phase transition property

Malto-oligosaccharide-conjugated block copolymers have been synthesized by using living radical polymerization techniques. We expect the applications of the resulting polymers as both (i) materials showing bio-function and (ii) nanoscale self-assembling materials derived from inexhaustible saccharide-resources.

・Glycoconjugated photoactive molecules for medical applications

Glyco-PEG-linked fullerene derivatives were synthesized, which showed the ability as photosensitizers for photodynamic therapy. We have conducted researches to prepare glycoconjugated porphyrinoids and transition metal complexes.

・Novel polymeric materials with cyclic topology

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Research Interest : Polymer Chemistry

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