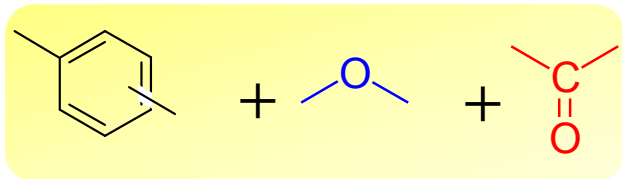


Synthesis of Functional Aromatic Poly(ether ketone)s

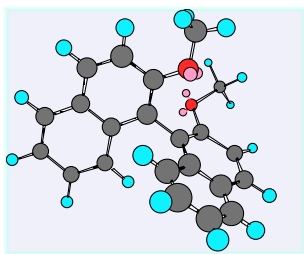
Associate Professor **Katsuya Maeyama**

Aromatic Poly(ether ketone)s



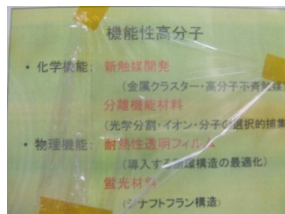
Physically and Chemically Stable Polymers

Introduction of
Twisted Aromatic
Ring Assemblies



Soluble in Typical
Organic Solvents!

Introduction of
Alicyclic
Moieties



Transparent
Polyketones

Content:

In recent years, super engineering plastics, which exhibit superior thermal and mechanical properties in a wide range of conditions, have attracted much attention and have been widely applied in various fields such as information technology, electronics, and automotive industry.

We have been developing aromatic poly(ether ketone)s with high thermal stability and excellent solubility in organic solvents. The key of molecular designing is introduction of twisted aromatic ring assemblies such as *o*-terphenylene and 2,2-dioxy-1,1'-binaphthylene moieties to polymer main chains. We have synthesized these aromatic poly(ether ketone)s through transition metal-catalyzed aromatic coupling polymerization, Friedel-Crafts-type acylation polymerization, and nucleophilic aromatic substitution polymerization. In addition, we have also been studying transparent aromatic poly(ether ketone)s.

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