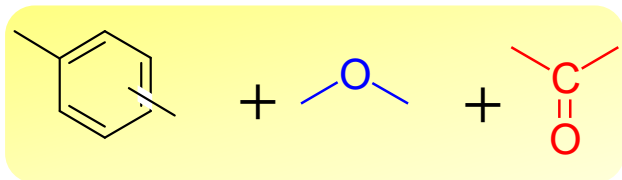


# Synthesis of High-Performance Aromatic Poly(ether ketone)s

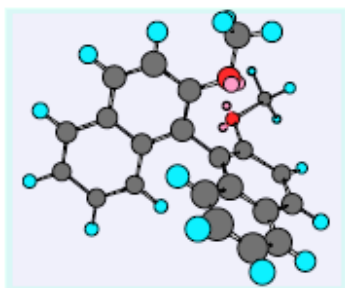
Professor Katsuya Maeyama

## 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 suitably twisted aromatic ring assemblies such as o-terphenylene and 1,1'-binaphthylene moieties to polymer main chains. We have synthesized these aromatic poly(ether ketone)s through Pd/Ni-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.

Appealing point:

High skill for various organic molecules including high-performance aromatic polyketones

Yamagata University, Graduate School of Organic Materials Science

Research Interest : Polymer synthesis,  
Organometallics, Organic chemistry

E-mail : [maeyama@yz.yamagata-u.ac.jp](mailto:maeyama@yz.yamagata-u.ac.jp)

Tel : +81-238-26-3186

HP : <http://maeyama-lab.yz.yamagata-u.ac.jp/>

