

Fiscal Year 2011, Tokyo Institute of Technology ASPIRE League Research Grant

Selected Research Projects in FY2011

Principal Researcher	Name	<b>Masa-aki KAKIMOTO</b>
	Department and graduate school(institute)in Tokyo Tech	Department of Organic and Polymeric Materials, Graduate School of Science and Engineering
	Position	Professor
Co-researchers	HKUST	Ben Zhong Tang, Chair Prof. Department of Chemistry
	KAIST	Sang Youl Kim, Prof. Department of Chemistry
	Nanyang	Marc J. M. Abadie, Prof. School of Materials Science & Engineering
	Tsinghua	-
Subject of the research project		<b>Functional High Temperature Polymers</b>
Summary of the research project		Development of high temperature molding that can be applied to SiC devices is promoted in the project. In SiC devices, usual epoxy molding resins cannot be used because of lack of high temperature stability of epoxy resins. New thermosetting aromatic resins will be developed in the project. These materials must have low viscosity before curing and high glass transition temperature after curing. Furthermore, characteristics of high thermal conductivity will be attached to the new molding materials. Although it is difficult to produce such high functional materials, we will find the best design of the molecular structure in discussion in the group meeting. We will set a “Satellite Lab” in Tokyo Tech. Graduate course students in KAIST, HKUST, NTU will stay there for 60 days to perform the project research with students of Tokyo Tech.