國立台灣大學材料系

演講公告

演講者：Professor Tsunehisa Kimura
Kyoto University

題　目：**Magnetic processing of feeble magnetic materials and its application to materials science and X-ray diffraction studies**

時　間：105 年 09 月 21 日（星期三）
下午 2 點 20 分

地　點：工綜館 228 研討室

*****歡迎參加*****

Magnetic processing of feeble magnetic materials and its application to materials science and X-ray diffraction studies

Tsunehisa Kimura
Kyoto University

Abstract
Feeble magnetic materials such as water, polymers, proteins, cells, ceramics, etc. (these are mostly diamagnetic) are considered not to be affected by applied magnetic fields. However, they do respond to the magnetic field though the susceptibility is very small. By using strong magnetic fields or with appropriate experimental setups, the effect of magnetic fields on feeble magnetic materials can be made visible and utilized.
In this presentation, I talk about magnetic alignments and magnetic patterning of micro crystals and fibers, which might be useful for materials processing. Also, I talk about magnetic alignment of microcrystals used to measure single crystal X-ray diffraction data from microcrystalline powders. The magnetic technique presented here provides a powerful means to align and pattern micro particles.

Resume

Bachelor of Engineering (Kyoto University, Japan, 1975)
Master of Engineering. (Kyoto University, Japan, 1977)
Doctor of Engineering (Kyoto University, Japan, 1981)
Researcher (Asahi Chem. Ind. Co. Ltd., Japan, 1982-1990)
Postdoctoral Fellow (McGill University, Canada, 1990-1993)
Associate Professor (Tokyo Metropolitan University, Japan, 199
Professor (Tokyo Metropolitan University, Japan, 2003-2007)
Professor (Kyoto University, Japan, April 2007-)

2004-2005 Group leader; Materials Processing Group, National Institute for Materials Science
2011-2012 President; The Magneto-Science Society of Japan

Awards:
The Award of the Society of Polymer Science, Japan (2001)
The Award of the Cellulose Society of Japan (2009)