



IBS Center for Molecular Spectroscopy and Dynamics

COLLOQUIUM

- SPEAKER

Dr. Young Jong Lee (National Institute of Standards and Technology, USA)

- TITLE

Broadband Coherent Raman Microscopy for Chemical and Orientation Imaging

- ABSTRACT

Broadband coherent anti-Stokes Raman scattering (BCARS) has been developed as a high-speed, label-free chemical imaging method. Since its first demonstration in 2002, the BCARS technology has been demonstrated as a useful imaging tool for investigating not only biological cells and tissues but also complex polymeric materials. In this talk, I will present a few studies that BCARS microscopy was used as a key method; unraveling the mechanism of the targeted movement of human white blood cells; determining the degree of stem cell differentiation; and imaging complex structure of semi-crystalline polyethylene blends. Additionally, I present a newly developed capability of the BCARS microscopy, which is to determine the 3D molecular orientation angles by analyzing polarization controlled Raman images. I hope that this talk can help to understand the BCARS microscopy and discuss its potential applications.

- DATE AND VENUE

Apr. 26, 2017 (Wednesday, 5:00–6:00 p.m.)
Seminar Room 116, KU R&D Center

- LANGUAGE

Korean