

## Special Open Lecture Professor Mildred S. Dresselhaus (MIT)

### What can we learn about low symmetry materials from spectroscopy?



In this talk, we overview the spectroscopy of lower-symmetry materials. In optical spectroscopy, because of the van Hove singularity for electronic density of states, optical spectra show sharp peaks in resonant optical process such as resonance Raman scattering and resonance Rayleigh scattering, which are useful for characterizing the structure of single-wall carbon nanotubes. However, lower-symmetry layered materials nevertheless yield some specific selection rules for optical transitions in which group theory still works well, such as for analyzing the spectra of transition metal dichalcogenides, using graphene as reference material. By showing examples that we have investigated so far, we will discuss what we can learn about lower-symmetry materials from spectroscopy.

Date: 16:30 –17:30, February 19 (Fri.), 2016

Place: The University of Tokyo, ITO INTERNATIONAL RESEARCH CENTER

Registration Fee: Free

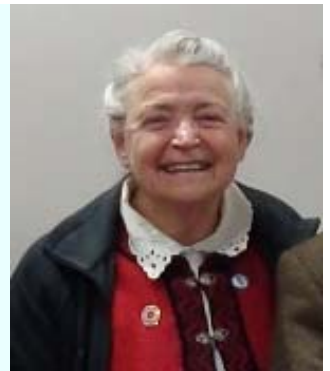
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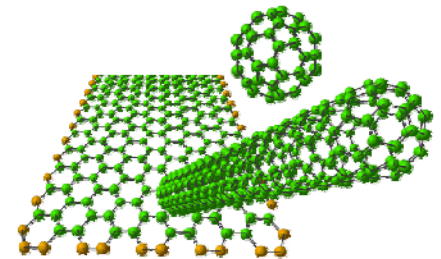
### The 50th Fullerenes-Nanotubes-Graphene General Symposium

Date: February 20 (Sat.) –22 (Mon.), 2016

Place: The University of Tokyo, ITO INTERNATIONAL RESEARCH CENTER

Registration Fee: Members: 5,000 JPY, Student Members: 2,500 JPY  
(GMSI/CIAiS members can register as Member)

- Special Lectures: Atsushi Kurobe (Toshiba), Yuta Nishina (Okayama University), Takeshi Hashimoto (Meijo nano carbon), Bunshi Fugetsu (The University of Tokyo), Takanori Fukushima (Tokyo Institute of Technology), Hideyuki Maki (Keio University), Yuhei Miyauchi (Kyoto University), Junji Yumoto (The University of Tokyo), Esko I. Kauppinen (Aalto University School of Science), Yan Li (Peking University/ The University of Tokyo)
- Feb. 20 (Sat.) 18:30–20:00 Tutorial: Hiroki Ago (Kyushu University)
- Feb. 21 (Sun.) 16:45 – 18:45 Special Panel Discussion: Y. Achiba, S. Iijima, H. Imahori, Y. Iwasa, M. Endo, E. Osawa, K. Komatsu, S. Saito, Y. Saito, K. Tanaka, K. Tanigaki, S. Hino
- Feb. 19 (Fri.): 6<sup>th</sup> Nanocarbon Application Forum
- Feb. 19 (Fri.): 4<sup>th</sup> Nanocarbon Bio Symposium



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