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# The 119<sup>th</sup> iCeMS SEMINAR

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**Tue 02 Oct 2012**

**16:00-17:30**

**Developing novel spectroscopic  
methods for molecular screening of  
biomaterials and biodevices**

Lecturer: **Prof. Dr. Giuseppe Pezzotti**  
Ceramic Physics Laboratory  
Kyoto Institute of Technology

Venue: 2nd floor Seminar Room (#A207)  
iCeMS Main Building (#71), Kyoto University

Raman and luminescence spectroscopies represent insightful characterization tools in the biomedical field, providing an invaluable tool for unfolding basic mechanisms taking place at the molecular scale. However, the physics underlying Raman and luminescence effects at the molecular scale represents an issue of deep complexity. In this presentation, some salient aspects of the physics governing Raman and luminescence emissions from biomaterials are revisited. Systematic characterizations of both natural and synthetic biomaterials in the context of their functions in biodevices are presented as applications of the developed equations. Emphasis is placed on bone, teeth, cartilage, and synthetic materials for joint devices.

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**Hosted by:** iCeMS (Institute for Integrated Cell-Material Sciences), Kyoto University

