JGP Seminar

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"Nonlinear Optics at the Nanoscale"

Nonlinear optics is the discipline in physics in which the response of a medium, in other words the electric polarization, becomes nonlinear with the electromagnetic field of the light. Nonlinear interaction between light and matter leads to a wide spectrum of phenomena, such as optical frequency conversion, Kerr effect, optical solitons, Raman scattering... After a brief introduction to the wide field of phenomena encountered in nonlinear optics, the lecture will be focused on the second-order processes and more specifically on the second harmonic generation, the process corresponding to the conversion of two photons at a same fundamental frequency omega to one photon at the harmonic frequency 2omega. This process is widely used on macroscopic crystals in laser technology to generate harmonic light. This lecture will show how the application of this technique on nano-objects permits to obtain information at the nanometer scale.

Date: Feb. 17 (Wed.), 2016

Time: 10:30 am – 12:00 am

Place: A2-308, Katsura Campus

※この講演は、「物質機能・変換科学分野」のSGU群科目「JGPセミナーI ～Ⅲ」の単位認定対象講演となります。詳細は、JGP化学系オフィス（090jgpchem@mail2.adm.kyoto-u.ac.jp）にお問い合わせ下さい。

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