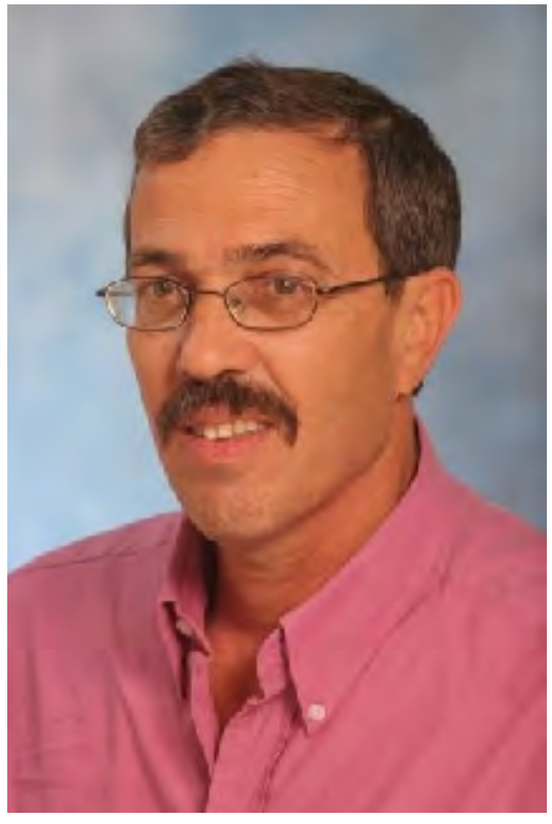
Seminar

５研究科共同セミナー

Hiroshima Univ

Metallocorroles for Photocatalysis

Speaker:
Prof. Dr. Zeev Gross
Schulich Faculty of Chemistry,
Technion – Israel Institute of Technology



Date: Tuesday, Feb 13th, 2018
Time: 15:30–17:30
Venue: B301 room, School of Science

Despite of the similarity to porphyrins, focus on the photophysical properties of corroles and their chelates with transition and post-transition metal ions (metallocorroles) started quite late. The most outstanding features appear to be very intense fluorescence (up to twice that of chlorophyll and the ease by which the properties may be tuned by facile synthetic manipulations. Metallocorroles may be designed as to display delayed fluorescence, RT phosphorescence, two-photon absorption, and more. The practical utility of metallocorroles has been exemplified by their use as catalysts for photo-assisted organic reactions, energy-relevant inorganic transformations, photodynamic therapy for fighting cancer, and photodynamic inactivation of microorganisms. Key to success in the above applications is the ability to delicately control the photophysical properties, redox potentials, and the selective positioning of substituents on the macrocycle.

Manabu Abe (7432)