

# Tadeusz Luty

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日時: 10月18日(金) 16:00–17:00

場所: 本館3階 理学系第2会議室

## “CHALLENGES FOR SCIENCE AND IMAGINATION” Interdisciplinary Research on Photo-induced Cooperative Phenomena.

### Abstract

As chemists are looking for diversity of a matter and physicists are interested in unification, at the heart of materials research interest and a grand challenge is to use physical methods to change and control properties of matter (called modern alchemy). Quickly growing interest in photo-induced phase transitions as highly cooperative phenomena, allows to address basic questions concerning control of materials processes at the level of electrons, structural and functional changes at different time-scales and at the level of different degrees of freedom, characterization and control matter away from equilibrium. Research on theoretical aspects of the photo-induced transformations will show a need for universal description of the phenomena. A search for such universality is essential to guide future research and to develop original and competitive technologies. Finally, I shall describe how a route towards modern alchemy based on physical methods has been developing, thanks to the international projects and cooperation on photo-induced phase transitions. Taking the occasion I shall present a research activity in Wrocław (my city)/Poland.

Host Prof. Shinya KOSHIHARA (2449)



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