

# PROGRAM

- Chair:** **Toshihiro Tanaka** (Osaka University)
- 9:30-9:40 Opening Address  
**Tomoyuki Kakeshita** (Osaka University)
- 9:40-10:05 “Integrated computational materials design: the metals frontier”  
**Gregory B. Olson** (Northwestern University)
- 10:05-10:30 “Kinetics of Martensitic Transformations Investigated by Magnetic Field”  
**Tomoyuki Kakeshita** (Osaka University)
- 10:30-10:40 Break
- 10:40-11:05 “Correlated Localized Surface Plasmon Resonance Spectroscopy and High Resolution Electron Microscopy”  
**Laurence Marks** (Northwestern University)
- 11:05-11:30 “Electronically-enhanced atomic processes in semiconductor nanoparticles”  
**Hidehiro Yasuda** (Osaka University)
- 11:30-13:00 Lunch Break
- Chair:** **Takayoshi Nakano** (Osaka University)
- 13:00-13:25 “Teaching “Old” Materials “New” Tricks: Nanopatterning and Localized Properties of Multifunctional Oxides”  
**Vinayak P. Dravid** (Northwestern University)
- 13:25-13:50 “Operation of magnetic logic devices using small magnetic cells”  
**Ryoichi Nakatani** (Osaka University)
- 13:50-14:15 “Nanostructured or Nanoconfined Polymeric Materials with Unusual Glass Transition Behavior: Gradient Copolymers, Ultrathin Films and Polymer Nanocomposites”  
**John M. Torkelson** (Northwestern University)
- 14:15-14:35 Break
- Chair:** **Ryoichi Nakatani** (Osaka University)
- 14:35-15:00 “Applications of Single-site Photocatalysts Designed Using Nanoporous Materials”  
**Hiromi Yamashita** (Osaka University)
- 15:00-15:25 “Bioengineering Single Crystal Growth”  
**Derk Joester** (Northwestern University)
- 15:25-15:50 “Evaluation and control of crystallographic alignment of apatite crystals in various bones”  
**Takayoshi Nakano** (Osaka University)
- 15:50-16:10 Break
- Chair:** **Toshihiro Tanaka** (Osaka University)
- 16:10-16:35 “Computations and Experiments of Microstructural Evolution in Four Dimensions”  
**Peter W. Voorhees** (Northwestern University)
- 16:35-17:00 “ $\delta/\alpha$  phase transformation following solidification of Fe-0.44C steel”  
**Hideyuki Yasuda** (Osaka University)
- 17:00-17:10 Closing Address  
**Peter W. Voorhees** (Northwestern University)