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Session B2: Focus Session: Quantum Control of Molecular, Nano, and Plasmonic Materials I

Sponsoring Units: DCP

Chair: Yossi Paltiel, Hebrew University

Room: 102

Monday, March 3, 2014 11:15AM - 11:51AM	B2.00001: Real-time observation of ultrafast Rabi oscillations between excitons and plasmons in J-aggregate/metal hybrid nanostructures Invited Speaker: Christoph Lienau
Monday, March 3, 2014 11:51AM - 12:03PM	B2.00002: Nonlinear optics of hybrid nano-materials under strong coupling conditions Maxim Sukharev
Monday, March 3, 2014 12:03PM - 12:15PM	B2.00003: Ultrafast Coherent Nanoscopy and Control of Plasmonic Nanostructures Dmitri Voronine , Charles Ballmann , Alexei Sokolov
Monday, March 3, 2014 12:15PM - 12:27PM	B2.00004: Coherent Field Emission by Superfocused Plasmons Julia Majors , Alejandro Rodriguez Perez , Joonhee Lee , V. Ara Apkarian
Monday, March 3, 2014 12:27PM - 1:03PM	B2.00005: Manipulating Energy Flow at the Nanoscale by Coupling Plasmons of Metal Nanostructures to Resonant Molecules Invited Speaker: Gary Wiederrecht
Monday, March 3, 2014 1:03PM - 1:15PM	B2.00006: Plasmon-mediated Photoelectron Emission from Single, Supported Metal Nanoparticles Andrej Grubisic , David Nesbitt
Monday, March 3, 2014 1:15PM - 1:27PM	B2.00007: Coherent polarization dynamics in three-photon photoemission from Cu(111) surface Cong Wang , Xuefeng Cui , Sean Garrett-Roe , Hrvoje Petek
Monday, March 3, 2014 1:27PM - 1:39PM	B2.00008: Resonant secondary light emission from plasmonic Au nanostructures at high electron temperatures created by pulsed laser excitation David Cahill , Jingyu Huang , Wei Wang , Catherine Murphy
Monday, March 3, 2014 1:39PM - 1:51PM	B2.00009: Cooperative amplification of energy transfer in plasmonic systems T.V. Shahbazyan , V.N. Pustovit , A.M. Urbas
Monday, March 3, 2014 1:51PM - 2:03PM	B2.00010: Proximity Resonance and Localized Surface Plasmons Bo Liu , Eric Heller
Monday, March 3, 2014 2:03PM - 2:15PM	B2.00011: Two-photon activation of photoactive ligands bound to gold surfaces Brenden A. Magill , Xi Guo , Erich M. See , Roberto L. Reyes , Richey M. Davis , Webster L. Santos , Hans D. Robinson

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Session D2: Focus Session: Quantum Control of Molecular, Nano, and Plasmonic Materials II

Sponsoring Units: DCP

Chair: Margaret Murnane, University of Colorado

Room: 102

Monday, March 3, 2014 2:30PM - 2:42PM	D2.00001: Resonant Pump-dump Quantum Control of Solvated Dye Molecules with Phase Jumps Arkprabha Konar , Vadim Lozovoy , Marcos Dantus
Monday, March 3, 2014 2:42PM - 2:54PM	D2.00002: High-fidelity transformations of the vibrational qubits in thiophosgene molecule Dmytro Shyshlov , Dmitri Babikov
Monday, March 3, 2014 2:54PM - 3:06PM	D2.00003: Excited state dynamics & optical control of molecular motors Ted Wiley , Roseanne Sension
Monday, March 3, 2014 3:06PM - 3:18PM	D2.00004: Implementation of exact and approximate methods for nonadiabatic quantum molecular dynamics induced by the interaction with the electromagnetic field and their applications to local quantum control Aurélien Patocz , Jiri Vanicek
Monday, March 3, 2014 3:18PM - 3:30PM	D2.00005: Moshe Shapiro's Pioneering Contributions to Quantum Control Tamar Seideman
Monday, March 3, 2014 3:30PM - 4:06PM	D2.00006: Electron dynamics and its control in molecules Invited Speaker: Regina de Vivie-Riedle
Monday, March 3, 2014 4:06PM - 4:18PM	D2.00007: Optical Control of Internal Conversion in Pyrazine Grant Barry , Sima Singha , Zhan Hu , Tamar Seideman , Robert Gordon
Monday, March 3, 2014 4:18PM - 4:30PM	D2.00008: Chemical control of cyclohexadiene photochemistry Brenden Arruda , Broc Smith , Kenneth Spears , Roseanne Sension
Monday, March 3, 2014 4:30PM - 5:06PM	D2.00009: Control of Strong Field Molecular Ionization with Shaped Ultrafast Laser Pulses Invited Speaker: Thomas Weinacht
Monday, March 3, 2014 5:06PM - 5:42PM	D2.00010: Molecular dissociation dynamics driven by strong-field multiple ionization Invited Speaker: Philip Bucksbaum

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Session F2: Focus Session: Quantum Control of Molecular, Nano, and Plasmonic Materials III

Sponsoring Units: DCP

Chair: Maxim Sukharev, Arizona State University

Room: 102

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| Tuesday, March 4, 2014
8:00AM - 8:12AM | F2.00001: Ultrafast nanooptics: Using strong laser fields to control the motion of electrons in and around metallic nanotstructures
Christoph Lienau |
| Tuesday, March 4, 2014
8:12AM - 8:24AM | F2.00002: Resonant Scattering of Surface-Plasmon-Polariton Waves by a Dynamical Quantum Dot
Danhong Huang , Michelle Easter , Godfrey Gumbs , Shawn-Yu Lin , Xiang Zhang , Alexei Maradudin |
| Tuesday, March 4, 2014
8:24AM - 8:36AM | F2.00003: Hybrid metal-dielectric nanocavity for ultrafast quantum dot optical field interaction
Kevin Fischer , Thomas Babinec , Yousif Kelaita , Konstantinos Lagoudakis , Tomas Sarmiento , Armand Rundquist , Arka Majumdar , Jelena Vuckovic |
| Tuesday, March 4, 2014
8:36AM - 9:12AM | F2.00004: Molecular controlled of quantum nano systems
Invited Speaker: Yossi Paltiel |
| Tuesday, March 4, 2014
9:12AM - 9:24AM | F2.00005: Three-Dimensional Plasmonic Nanoclusters
Nicolas Large , Alexander Urban , Xiashuang Shen , Yumin Wang , Hong Wang , Mark Knight , Peter Nordlander , Hongyu Chen , Naomi Halas |
| Tuesday, March 4, 2014
9:24AM - 9:36AM | F2.00006: Long range emission enhancement and anisotropy in coupled quantum dots induced by aligned elongated and proximal gold nanoantenna
Jaydeep Basu , Laxminarayan Tripathi , Praveena M , Pranay Valson |
| Tuesday, March 4, 2014
9:36AM - 9:48AM | F2.00007: Plasmon-enhanced energy transfer for improved upconversion of infrared radiation in doped-lanthanide nanocrystals
Qi Sun , Haridas Mundoor , Josep Ribot , Vivek Singh , Ivan Smalyukh , Prashant Nagpal |
| Tuesday, March 4, 2014
9:48AM - 10:24AM | F2.00008: Quantum and nonlinear optics at the single photon level with quantum dots in optical nanocavities
Invited Speaker: Jelena Vuckovic |
| Tuesday, March 4, 2014
10:24AM - 10:36AM | F2.00009: Near-field Mediated Plexcitonic Coupling and Giant Rabi Splitting in Individual Metallic Dimers
Andrea Schlather , Nicolas Large , Alexander Urban , Peter Nordlander , Naomi Halas |
| Tuesday, March 4, 2014
10:36AM - 10:48AM | F2.00010: Plasmon-assisted surface photochemistry and nanoassembly in silver nanoparticles
Erich M. See , Seyyed Mohammad Hossein Abtahi , Xi Guo , Brenden A. Magill , Webster L. Santos , Richey M. Davis , Hans D. Robinson |
| Tuesday, March 4, 2014
10:48AM - 11:00AM | F2.00011: Lightning-rod-effect-directed photo assembly of gold nanorods and spheres in a colloidal suspension
Seyyed Mohammad Hossein Abtahi , Xi Guo , Webster L. Santos , Hans D. Robinson , Richey M. Davis |

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Session G2: Focus Session: Quantum Control of Molecular, Nano, and Plasmonic Materials IV

Sponsoring Units: DCP

Chair: Thomas Weinacht, Stony Brook University

Room: 102

Tuesday, March 4, 2014 11:15AM - 11:51AM	G2.00001: TDDFT and RPA for mesoscopic systems with thousands to millions of electrons: understating the red-shift in silver clusters absorption around 5nm Invited Speaker: Daniel Neuhauser
Tuesday, March 4, 2014 11:51AM - 12:03PM	G2.00002: Binary Platinum-Based Nanoclusters: A Density Functional Theory Investigation Juarez L.F. Da Silva , Ricardo K. Nomiya , Maur\Icio J. Piotrowski , Diego Guedes Sobrinho , Anderson S. Chaves
Tuesday, March 4, 2014 12:03PM - 12:15PM	G2.00003: First principles theory for surface plasmon generation and decay to hot carriers Ravishankar Sundararaman , Prineha Narang , Adam Jermyn , Harry A. Atwater , William A. Goddard III
Tuesday, March 4, 2014 12:15PM - 12:27PM	G2.00004: High Field Optomagnetic (OM) Polarization-Phase Selective (PPS) Monitoring of Structures and Controlling Reaction Agents Mechanisms in Complex Molecular Systems Kresimir Rupnik
Tuesday, March 4, 2014 12:27PM - 1:03PM	G2.00005: Strong Field Coherent Control at the Space-Time Limit Invited Speaker: Tamar Seideman
Tuesday, March 4, 2014 1:03PM - 1:15PM	G2.00006: Charge transfer and quantum coherence in solar cells and artificial light harvesting system Christoph Lienau
Tuesday, March 4, 2014 1:15PM - 1:27PM	G2.00007: High photoreactivity in a non-fluorescent photocleavable ligands on gold Hans D. Robinson , Chalongrat Daengnam , Stefan V. Stoianov , Steven B. Thorpe , Xi Guo , Webster L. Santos , John R. Morris
Tuesday, March 4, 2014 1:27PM - 1:39PM	G2.00008: The effect of Coulomb interactions on thermoelectric properties of quantum dots Natalya Zimbovskaya , Valery Kuzmin
Tuesday, March 4, 2014 1:39PM - 2:15PM	G2.00009: Quantum Control of Electrons in Atoms, Molecules and Materials - from Femtosecond to Attosecond to Zeptosecond Timescales Invited Speaker: Margaret Murnane