Poster Sessions

Wednesday September 7, 2016 (17:30 - 19:00)

We-14P-1 **Rigorous Coupled Wave Analysis of Near-field Optical Problems**

R. Antos[1], M. Veis[1], K. Palka[2], J. Mistrik[2], P. Janicek[2], Mir. Vlcek[2], and T. Ishibashi[3], *[1]Institute of Physics, Charles University, Czech Republic, [2]Faculty of Chemical Technology, University of Pardubice, Czech Republic, [3]Department of Materials Science and Technology, Nagaoka University of Technology, Japan*

We-14P-2 **Theory of Graphene Saturable Absorption**

A. Marini[1], J. Cox[1], and F. J. García de Abajo[2,] *[1]ICFO-Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA-Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-3 **Molecular Sensing with Tunable Graphene Plasmons**

A. Marini[1], I. Silveiro[1], and F. J. García de Abajo[2], *[1]ICFO-Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA-Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-4 **Unscalable Electromagnetic Hierarchy via Gold Nanorods Observed by STM-assisted Optical Near-field Microscopy**

N. Nishikawa[1], K. Uchiyama[1], K. Kobayashi[1], M. Naruse[2], and H. Hori[1], *[1]University of Yamanashi, Japan, [2]National Institute of Information and Communications Technology, Japan*

We-14P-6 **Tailoring the Optical Near-field using Local Interference Effect**

J. T. Hugall[1], A. Singh[1], G. Calbris[1], and N.F. van Hulst[1,2], *[1]ICFO – The Institute of Photonic Sciences, The Barcelona Institute of Science and Technology, Spain, [2]ICREA- Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-7 **Anisotropic Optical Response of Nanostructures with Balanced Gain and Loss**

A. Manjavacas, *Department of Physics and Astronomy, University of New Mexico, USA*

We-14P-8 **Transfer of Photon Spin to Electron Orbital Angular Momentum**

U. C. Fischer[1], F. Fontein[1], H. Fuchs[1], and T. Grosjean[2], *[1]Interface physics group, University of Muenster, Germany, [2]CNRS, FEMTO-ST Institute, France*

We-14P-9 **Strong Coupling in the Photoluminescence of Plasmons Coupled with J-aggregates**

R. Esteban[1], D. Melnikau[2], D. Savateeva[2], A. Sánchez-Iglesias[3], M. Grzelczak[3], M. K. Schmidt[2], L. M. Liz-Marzán[3,4], J. Aizpurua[1,2], and Y. P. Rakovich[1,2,4], *[1]Donostia International Physics Center (DIPC), Spain, [2]Centro de Física de Materiales (MPC, CSIC-UPV/EHU), Spain, [3]CIC biomaGune, Spain , [4]IKERBASQUE, Basque Foundation for Science, Spain*

We-14P-10 **Localized Surface Plasmon for Enhanced Lasing Performance in Solution-processed Perovskites**

T. S. Kao[1], Y. -H. Chou[2], K. -B. Hong[1], J. -F. Huang[1], F. -C. Chen[1], and T. -C. Lu[1], *[1]Department of Photonics and Institute of Electro-Optical Engineering, National Chiao Tung University, Taiwan, [2]Institute of Lighting and Energy Photonics, College of Photonics, National Chiao Tung University, Taiwan*

We-14P-11 **Near Field Hyperspectral Quantum Probing of Multimodal Plasmonic Resonators**

A. Cuche[1], M. Berthel[2], U. Kumar[1], G. Colas des Francs[3], S. Huant[2], E. Dujardin[1], C. Girard[1] and A. Drezet[2], *[1]CEMES, University of Toulouse and CNRS, France, [2]Néel Institute, University Joseph Fourier and CNRS, France, [3]ICB, University of Bourgogne and CNRS, France*

We-14P-12 **Observation of Near-field Optical Excitation of Water Nanodroplet using Azobenzene Molecular Thin Film**

Y. Ohdaira, K. Shinbo, A. Baba, K. Kato, and F. Kaneko ,*Graduate School of Science and Technology, Niigata University, Japan*

We-14P-13 **Time Resolved Magneto Photoluminescence Study of Inter-well Excitation Transfer via Optical Near-field Interactions in Diluted-magnetic/nonmagnetic Triple Quantum Wells**

S. Kubota, K. Uchiyama, T. Matsumoto, K. Kobayashi, and H. Hori, *University of Yamanashi, Japan*

We-14P-14 **High-speed Nanoscale Mapping of Multipolar Resonances in Plasmonic Nanostructures by EELS**

V. Flauraud[1], G. D. Bernasconi[2], J. Butet[2], O. J. F. Martin[2], J. Brugger[1], and D. T. L. Alexander[3], *[1]Microsystems Laboratory*, [2]Nanophotonics and Metrology Laboratory*, [3]Interdisciplinary Center for Electron Microscopy*, *Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland*

We-14P-15 **Plasmonic Lens/ Probe Assisted Tip-enhanced Near-field Raman Spectroscopy**

M. Zhang, *Qian Xuesen, Laboratory of Space Technology, China Academy of Space Technology, P.R. China*

We-14P-16 **Nano-FTIR: Spectroscopy with 10 nm Spatial Resolution Provides New Insights in Surface Corrosion**

M. Boehmler[1] and M. Johnson[2], *[1]neaspec GmbH, Germany, [2]KTH Royal Institute of Technology, Sweden*

We-14P-17 **Surface-enhanced Raman Spectra of *p*-ATP at Different Laser Excitation Powers on Silver Nano-surface**

N. Takeyasu, R. Kagawa, and T. Kaneta, *Graduate School of Natural Science & Technology, Okayama University, Japan*

We-14P-18 **A Stimulated Raman Scattering CMOS Imager using a High-speed Charge Modulator and Lock-in Amplifier**

D.X. Lioe[1], K. Mars[1], K. Yasutomi[1], K. Kagawa[1], M. Hashimoto[2], and S. Kawahito[1], *[1]Research Institute of Electronics, Shizuoka University, Japan, [2]Graduate School of Engineering Science, Osaka University, Japan*

We-14P-19 **Computational Approach to Unravel High Lateral Resolutions in Tip-enhanced Raman Scattering Experiments**

D. Kinzel[1], S. Trautmann[2], and V. Deckert[1,2] , *[1]Institute of Physical Chemistry and Abbe Center of Photonics, Friedrich-Schiller-University Jena, Germany, [2]Leibniz Institute of Photonic Technology, Germany*

We-14P-20 **Single-molecule Raman Spectroscopy - from Porphyrins to Biomolecules**

S. Gawinkowski[1], R. Lane[1], O. Planas[2], S. Nonell[2], and N.F. van Hulst[1,3], *[1]ICFO-The Institute of Photonic Sciences, Spain, [2]Institut Quimic de Sarria, Universitat Ramon Llull, Spain, [3]ICREA – Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-21 **Optical Nanocrystallography with Infrared Scattering-scanning Near-field Spectroscopy**

E. A. Muller[1], B. Pollard[1], H. A. Bechtel[2], P. Van Blerkom[1], and M. B. Raschke[1], *[1]University of Colorado Department of Physics, Department of Chemistry and JILA, USA, [2]Lawrence Berkeley National Laboratory Advanced Light Source Division, USA*

We-14P-22 **In-situ Tip-enhanced Spectroscopic Analysis of Cathode Surface in Lithium Ion Battery Under Electrochemical Processes**

K. Hara[1], T. Yano[1,2], and M. Hara[1,2,3], *[1]School of Chemical Science and Engineering, Tokyo institute of Technology, Japan, [2]RIKEN, Japan, [3]Earth-Life Science Institute, Tokyo institute of Technology, Japan*

We-14P-23 **Tip-enhanced Resonant Raman Scattering Study of Monolayer Tungsten Disulfide**

Chanwoo Lee[1,2], Byeong Geun Jeong[1,2], Seok Joon Yun[1,2], Young Hee Lee[1,2,3], and Mun Seok Jeong[1,2], *[1]Department of Energy Science, Sungkyunkwan University, South Korea, [2]Center for Integrated Nanostructure Physics (CINAP), Institute for Basic Science (IBS), South Korea, [3]Department of Physics, Sungkyunkwan University, South Korea*

We-14P-24 **On Determining the Quantum Efficiency of Emitters Coupled to Plasmonic Antennae**

H.-W. Liu[1], K. Matsuzaki[1], S. Götzinger[2,1] and V. Sandoghdar[1,2], *[1]Max Planck Institute for the Science of Light, Germany, [2]Friedrich Alexander University of Erlangen-Nürnberg, Germany*

We-14P-25 **Fibered Nanoscale Imaging of Single Infrared Quantum Dot using Broadband Double Resonance Bowtie Nano-aperture Antenna**

Z. Xie, J-M. Merolla, M.Suarez, and T. Grosjean, *FEMTO-ST Institute, University of Bourgogne/Franche-Comté, France*

We-14P-26 **Non-kirchhoff Feature of Nanogap Revealed by Oblique Illumination Experiment: Surface-current-dominated Gap Field**

Hyosim Yang[1], Dukhyung Lee[1], Joonyeon Kim[1], Taehee Kang[1], Jae Sung Ahn[2] and Dai-Sik Kim[1], *[1]Department of Physics and Astronomy and Center for Atom Scale Electromagnetism, Seoul National University, South Korea, [2]Medical Photonics Research Center, Korea Photonics Technology Institute, South Korea*

We-14P-27 **Ultra Narrow Gap Antennas**

K. Braun[1], F. Laible[2], O. Hauler[1], A. J. Meixner[1], and M. Fleischer[2], *[1]Institute of Physical and Theoretical Chemistry, University of Tuebingen, and LISA+, Germany, [2]Institute for Applied Physics, University of Tuebingen, Germany*

We-14P-28 **Influence of the Gap Morphology on the Optical Properties of Plasmonic Antennas**

J. F. Herrmann, S. Bisping, and C. Höppener, *NanoBioPhotonics Group, Institute of Physics, University of Münster, Germany*

We-14P-29 **Modeling Atomic Scale Features Indicates High Resolution in TERS**

S. Trautmann[1], I. Götz[1], A. Undisz[3], H. Schneidewind[1], J. Dellith[1], M. Rettenmayr[3], J. Aizpurua[4], and V. Deckert[1,2], *[1]Leibniz Institute of Photonic Technology, Germany, [2]Institute of Physical Chemistry and Abbe Center of Photonics, Friedrich Schiller University, Germany, [3]Otto Schott Institute of Materials Research, Friedrich Schiller University, Germany, [4]Centro de Física de Materiales, Centro Mixto CSIC-UPV/EHU and Donostia International Physics Center (DIPC), Spain*

We-14P-30 **Second Harmonic Generation in the Interaction of Laser with a Linear Array of Interacting Metallic Nanoprticles**

N. Sepehri Javan, A. Farhumand, H. Mohammadzade, and A. Kheirandish, *Physics Department, Basic Sciences Faculty, University of Mohaghegh Ardabili, Iran*

We-14P-31 **Second Order Nonlinear Optical Responses of Au Nanorods/NLO Polymer/Ag Films at LSP Resonances**

D. Ishii, K. Miyabayashi, A. Ono, Y. Kawata, and A. Sugita, *Faculty of engineering ,Shizuoka University, Japan*

We-14P-32 **Second-order Nonlinearities of 1D Arrays of Au Nanorods**

S. Nihashi, A. Ono, Y. Kawata, and A. Sugita, *Faculty of engineering, Shizuoka University, Japan*

We-14P-33 **Enhanced Second Order Nonlinearities of NLO Polymer-coated Au Nanorods at LSP Resonance**

T. Matsui, A. Ono, Y. Kawata, and A. Sugita, *Faculty of engineering, Shizuoka University, Japan*

We-14P-34 **Ultrafast Nano-imaging of the Photoinduced Phase Transition Dynamics in VO_2**

S.A. Dönges[1], O. Khatib[1], B.T. O'Callahan[1], J.M. Atkin[2], and M. B. Raschke[1], *[1]Department of Physics, Department of Chemistry, and JILA, University of Colorado, USA, [2]Department of Chemistry, University of North Carolina, USA*

We-14P-35 **Nonlinear Plasmonic Sensing with Graphene Nanoislands**

Renwen Yu[1], Joel D. Cox[1] and F. Javier García de Abajo[1,2], *[1]ICFO-Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA-Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-36 **Electrical Detection of Graphene Plasmons**

Renwen Yu[1], and F. Javier García de Abajo[1,2], *[1]ICFO-Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA-Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-37 **Enhanced and Tunable Magneto-optics via Fano Lattice Surface Modes in Arrays of Anisotropic Magnetic Nanoantennas**

L. Bergamini[1,2], N. Maccaferri[3], M. Pancaldi[3], M. K. Schmidt[2], M. Kataja[4], S. van Dijken[4], N. Zabala[1,2], J. Aizpurua[2], and P. Vavassori[3,5], *[1]Department of Electricity and Electronics, UPV/EHU, Spain, [2]CFM, CSIC-UPV/EHU and DIPC, Spain, [3]CIC nanoGUNE, Spain, [4]Department of Applied Physics, Aalto University School of Science, Finland , [5]Ikerbasque, Basque Foundation for Science, Spain*

We-14P-38 **Phase-change and Plasmonic Manipualtion in VO_2 Nanosquare Arrays**

Hiroaki Matsui[1], Ya-Lun Ho[1], Teruo Kanki[2] , Hidekazu Tanaka[2], Jean-Jacques Delaunay[3], and Hitoshi Tabata[1], *[1]The University of Tokyo, Japan, [2]ISIR-Sanken, Osaka University, Japan*

We-14P-39 **High-efficient THz-TDS System using Laser Chaos and Super Focusing with Metal V Grooved Wave Guide**

Manatu Oi[1], Kazuyuki Iwao[1], Yusuke Akamine[1], Daiki Inoue[1], Naoya Sakaue[1], Takuro Shirasaki[1], Siori Goda[1], Fumiyoshi Kuwashima[1], Masahiko Tani[1], Kazuki Kurihara[2], Koji Yamamoto[1], Ken Nagashima[3], Masanori Hangyo[4], *[1]Fukui Univ. of Technology, Research Center for Development of Far-Infrared Region, [2]Faculty of Education and Regional Studies Univ. of Fukui, [3]Setsunan Univ., [4]Institute of Laser Engineering Osaka Univ.*

We-14P-40 **Phase-resolved Nanoimaging of Ultraslow Hyperbolic Polariton Pulses in Hexagonal Boron Nitride Slabs**

E. Yoxall[1], M. Schnell[1], A. Nikitin[1], O. Txoperena[1], A. Woessner[2], M. B. Lundeberg[2], F. Casanova[1,4], L. E. Hueso[1,4], F. H. L. Koppens[2], and R. Hillenbrand[3,4], *[1]CIC nanoGUNE, Spain, [2]ICFO-Institut de Ciéncies Fotòniques, Spain, [3]CIC NanoGUNE and EHU/UPV, Spain, [4]IKERBASQUE, Basque Foundation for Science, Spain*

We-14P-41 **Observation of Surface Plasmon Propagation in Crystalline Silver Nanowire**

Y. Hayashi[1] and A. Ono[2], *[1]Graduate school of integrated Science and Technology, Shizuoka University, Japan, [2]Research Institute of Electronics, Shizuoka University, Japan*

We-14P-42 **Structure- and Polarization-dependent Peculiarities of Localized Plasmon Resonances in Thin 2D Noble Metal-dielectric Layers**

A. N. Shaymanov[1,2], K. M. Khabarov[1,5], A. M. Merzlikin[1,4,5], A. V. Baryshev[1,3,5], *[1]All-Russia Research Institute of Automatics, Russia, [2]Lomonosov Moscow State University, Russia, [3]Ioffe Physical-Technical Institute, Russia , [4]Institute for Theoretical and Applied Electromagnetics, Russia, [5]Moscow Institute of Physics and Technology, Russia*

We-14P-43 **Absorption Spectroscopy of Individual Nanomaterials by Surface Plasmon Resonance**

Youngbum Kim[1,2], Shrawan Roy[1,2], Hyungsuk Hwang[3], Jubok Lee[1,2], Yongjun Lee[1,2], Min Su Kim[1], and Jeongyong Kim[1,2], *[1]Center for Integrated Nanostructure Physics, Institute for Basic Science, Sungkyunkwan University, South Korea, [2]Department of Energy Science, Sungkyunkwan University, South Korea, [3]Department of Physics, Korea University, South Korea*

We-14P-44 **Tunable Optomagnets in Diamagnetic Thin Metal Layers and Plasmonic Nano-Antennas**

Y. Lefier[1], U. Fischer[2], and T. Grosjean[1], *[1]Femto-ST Institute, France , [2]Interface physics group, WWU, Germany*

We-14P-45 **Wide Range Active Plasmon Filter by Tapered Nanoslit**

Kenzo Yamaguchi[1], Terumasa Kagamihara[1], and Masamitsu Fujii[2], *[1]Department of Advanced Materials Science, Faculty of Engineering, Kagawa University, Japan, [2]Toba, National College of Maritime Technology, Japan*

We-14P-46 **Electrically Driven Mechanical Gap Plasmon Waveguide**

Kenzo Yamaguchi[1], Tomoya Ohtsu[1], and Masamitsu Fujii[2], *[1]Department of Advanced Materials Science, Faculty of Engineering, Kagawa University, Japan, [2]Toba National College of Maritime Technology, Japan*

We-14P-47 **Particle Plasmon Tomography**

A. Trügler[1], A. Hörl[1], G. Haberfehlner[2], F. P. Schmidt[1,2], G. Kothleitner[2], U. Hohenester[1], *[1]Institute of Physics, University of Graz, Austria, [2]Graz Centre for Electron Microscopy & Institute for Electron Microscopy and Nanoanalysis, Graz University of Technology, Austria*

We-14P-48 **Plasmon Resonances of Mid-IR Antennas on an Absorbing Substrate: Optimization of Localized Absorption Enhancement**

L. Břínek[1,2], T. Šamořil[1,2], O. Tomanec[1,2], M. Hrtoň[1,2], R. Kalousek[1,2], J. Spousta[1,2], P. Dub[1,2], P. Varga[1,2], and T. Šikola[1,2], *[1]Institute of Physical Engineering, Brno University of Technology, Czech Republic, [2]Central European Institute of Technology, Brno University of Technology, Czech Republic*

We-14P-49 **Surface Enhanced Raman Scattering from Gold Nanowires Excited with Circularly Polarized Light**

A. Foti[1,2], C. D'Andrea[1,3], B. Fazio[1], E. Messina[1], O. M. Maragò[1], M. C. Giordano[4], C. Martella[4], D. Chiappe[4,5], A. Toma[4,6], F. Buatier de Mongeot[4], and P. G. Gucciardi[1], *[1]CNR IPCF Istituto per i Processi Chimico-Fisici, Italy, [2]Scuola di Dottorato di Ricerca in Fisica, University of Messina, Italy , [3]Matis IMM – CNR, Italy, [4]Dipartimento di Fisica, and CNISM, University of Genova, Italy , [5]Laboratorio MDM CNR-IMM, Italy, [6]Istituto Italiano di Tecnologia, Italy*

We-14P-50 **Ultra-confined Acoustic THz Graphene Plasmons Revealed by Photocurrent Nanoscopy**

Pablo Alonso-González[1,2], Alexey Y. Nikitin[1,3], Yuanda Gao[4], Achim Woessner[5], Mark B. Lundeberg[5], Alessandro Principi[6], Nicolo Forcellini[7], Wenjing Yan[1], Saül Vélez[1], Andreas. J. Huber[8], Kenji Watanabe[9], Takashi Taniguchi[9], Luis E. Hueso[1,3], Marco Polini[10], James Hone[4], Frank H. L. Koppens[5,11], and Rainer Hillenbrand[3,12], *[1]CIC nanoGUNE, Spain, [2]Departmento de Fisica, Universidad de Oviedo, Spain, [3]IKERBASQUE, Basque Foundation for Science, Spain, [4]Department of Mechanical Engineering, Columbia University, USA, [5]ICFO-Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Spain, [6]Radboud University, Institute for Molecules and Materials, The Netherlands, [7]Department of Physics, Imperial College London, UK, [8]Neaspec GmbH, Germany, [9]National Institute for Materials Science, Japan, [10]Istituto Italiano di Tecnologia, Graphene labs, Italy, [11]ICRSA - Tecnologia, Graphene labs, Italy, [12]CIC NanoGUNE and EHU/UPV, Spain*

We-14P-52 **Plasmonic Catalysis Monitored by SERS and TERS**

Zhenglong Zhang[1,2] and Volker Deckert[1,3], *[1]Leibniz Institute of Photonic Technology, Germany, [2]School of Physics and Information Technology, Shaanxi Normal University, China, [3]Institute of Physical Chemistry and Abbe Center of Photonics, Friedrich-Schiller University Jena, Germany*

We-14P-53 **Asymmetric Plasmonic Waveguides as Platform for Coupling between Surface Plasmons and Propagating Waves**

S. Menabde, V. Shaidiuk, and N. Park, *Photonic Systems Laboratory, Dept. of ECE, Seoul National University, South Korea*

We-14P-54 **Smith-Purcell Radiation Emission by Non-Periodic Array Nanostructures**

J. R. M. Saavedra[1], D. Castells-Graells[1], and F. Javier García de Abajo[1,2], *[1]ICFO Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA-Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-55 **Near-field Optical Imaging of Graphene Plasmon on Silicon Carbon**

C. Yang, R. Chen, and J. Chen, *Institute of Physics, Chinese Academic of Science, China*

We-14P-56 **Development of Plasmonic Bragg Gratings with a Trench Plasmonic Waveguide**

H. Okamoto[1], K. Kusaka[1], K. Yamaguchi[2], T. Kagamihara[2], M. Haraguchi[3], and T. Okamoto[3], *[1]National Institute of Technology, Anan College, Japan, [2]Department of Advanced Materials Science, Faculty of Engineering, Kagawa University, Japan, [3]Department of Optical Science and Technology, Faculty of Engineering, The University of Tokushima, Japan*

We-14P-57 **Transmission Spectrum of Anti-symmetric Mach-Zehnder Interferometer in Metal-insulator-metal Plasmonic Waveguide**

S. Kamada, T. Okamoto, and M. Haraguchi, *Tokushima University, Japan*

We-14P-58 **Long-lifetime Plasmonic Bubble Generated by Photothermal Effect**

Yushi Nishimura[1], Kazuki Ueda[1], Yojiro Yamamoto[3], Shiho Tokonami[2], and Takuya Iida[1], *[1]Graduate School of Science, Osaka Prefecture University, Japan, [2]Graduate School of Engineering, Osaka Prefecture University, Japan, [3]GreenChem. Inc., Japan*

We-14P-59 **Dispersion Relation, Propagation Length and Mode Conversion of Surface Plasmon Polaritons in Silver Double-nanowire Systems**

Shulin Sun[1], Hung-Ting Chen[2], Wei-Jin Zheng[2], and Guang-Yu Guo[2,3], *[1]Shanghai Engineering Research Center of Ultra-Precision Optical Manufacturing and Green Photonics, Fudan University, China, [2]Department of Physics, National Taiwan University, Taiwan, [3]Physics Division, National Center for Theoretical Sciences, Taiwan*

We-14P-60 **Quantum Plasmonics with Finite Carbon Nanotubes**

S. de Vega Esteban[1], J. D. Cox[1], and F. J. García de Abajo[1,2], *[1]ICFO – Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Spain, [2]ICREA – Institució Catalana de Recerca i Estudis Avançats, Spain*

We-14P-61 **Spatially Resolved Evaluation of Surface Plasmon Enhanced Photoluminescence of InGaN/GaN Quantum Wells**

K. Tateishi[1], P. Wang[1], S. Ryuzaki[1], M. Funato[2], Y. Kawakami[2], K. Okamoto[1], and K. Tamada[1], *[1]Institute for Materials Chemistry and Engineering, Kyushu University, Japan, [2]Department of Electronic Science and Engineering, Kyoto University, Japan*

We-14P-62 **Extending the Working Distance of Campanile Tips by a Multilayer Plasmonic Superlens**

Kaiyuan Yao[1,2], Arthur Montazeri[1,3], John K.D. Clark[3], Nazir P. Kherani[3,4], and P. James Schuck[1], *[1]Molecular Foundry, Materials Science Division, Lawrence Berkeley National Lab, USA, [2]Department of Mechanical Engineering, UC Berkeley, USA, [3]Department of Electrical & Computer Engineering, University of Toronto, USA, [4]Department of Materials Science & Engineering, University of Toronto, USA*

We-14P-63 **Complete Analysis of Plasmon Transmission through Top-down Fabricated Monocrystalline Nanowires**

E. Krauss[1], P. Geisler[1], G. Razinskas[1] & B. Hecht[1,2], *[1]Nano-Optics & Bio-Photonics Group, Experimentelle Physik 5, Physikalisches Institut, Universität Würzburg, Germany, [2]Röntgen Research Center for Complex Material Systems (RCCM), Germany*

We-14P-64 **Experimental Realization of Surface Plasmon Laser**

F. Benimetskiy[1,3] , T. Basova[2] , R. Parkhomenko[2] , A. Kuchyanov[1], and A. Plekhanov[1], *[1]Institute of Automation and Electrometry, Russia, [2]Institute of Inorganic Chemistry, Russia, [3]Novosibirsk State University, Russia*

We-14P-65 **Nanolayer Polarizability Mapping Based on Near-field Edge Fringes**

V. Babicheva, V. Yakovlev, S. Gamage, M. Stockman, and Y. Abate, *Center for Nano-Optics, Georgia State University, USA*

We-14P-66 **Strong Coupling of Single Nanocrystals with Plasmonic Resonators at Ambient Conditions**

H. Groß[1], J. Hamm[2], T. Tufarelli[2], O. Hess[2] and B. Hecht[1], *[1]Nano-Optics and Biophotonics Group, Experimentelle Physik 5 Universität Würzburg, Germany, [2]Blackett Laboratory, Department of Physics, Imperial College London, UK*

We-14P-67 **Nano-optics of Molecular-shunted Plasmonic Nanojunctions**

Felix Benz[1], Christos Tserkezis[3], Lars O. Herrmann[1], Bart de Nijs[1], Laurynas Pukenas[2], Stephen D. Evans[2], Javier Aizpurua[3], Jeremy J. Baumberg[1], *[1]NanoPhotonics Centre, Cavendish Laboratory, Department of Physics, JJ Thompson Ave, University of Cambridge, UK, [2]Molecular and Nanoscale Physics, School of Physics and Astronomy, University of Leeds, UK, [3]Donostia International Physics Center (DIPC) and Centro de Física de Materiales, Centro Mixto CSIC-UPV/EHU, Spain*

We-14P-68 **Specially Fabricated Optical Fiber Nanoprobe with Enhanced Non-diffracting Beam for Near-field Sensing Applications**

Rashmi A. Minz[1,2], Kaushal Vairagi[1], Sarabjeet Saini[2], Aditi Chopra[2], Samir K Mondal[2], *[1]Academy of Scientific and Innovative Research, India, [2]Central Scientific Instruments Organisation, India*

We-14P-70 **Development of High Raman Enhancement Effect of Gold and Silver Nanomatrials for Optical Contrast and Biological Impact Study**

Yu-Hao Chao[1,2], Wen-Chuan Kuo[1], Chih-Chia Huang[2], *[1]Institute of Biophotonics, National Yang-Ming University, Taiwan, [2]Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan*

We-14P-71 **High Resolution Plasmonic Near-field Probe**

R. H. Jiang[1,2], J. Y. Chu[2], H. J. Chou[3], C. Chen[3], and T. J. Yen[1], *[1]Department of Materials Science and Engineering, National Tsing Hua university, R.O.C., [2]Department of Material and Chemical Research laboratories, Industrial technology and research institute, R.O.C., [3]Research Center for Applied Sciences, Academia Sinica, R.O.C.*

We-14P-72 **Ostwald Ripening of Evaporated Silver Films in Various Solutions**

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We-14P-73 **Quantitative Phase Imaging of Plasmonic Nanoantennas**

J. Babocký[1], F. Ligmajer[1,2], R. Kalousek[1,2], A. Křížová[1,2], L. Kejík[2], M. Hrtoň[1,2], P. Dvořák[1,2], M. Týč[1,2], V. Křápek[1,2], R. Chmelík[1,2], and T. Šikola[1,2], *[1]Central European Institute of Technology, Brno University of Technology, Czech Republic, [2]Institute of Physical Engineering, Brno University of Technology, Czech Republic*

We-14P-74 **Deep-subwavelength Polarization Resolved Fano-imaging**

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We-14P-75 **Imaging of 3D Cellular Spheroids by Trimodalities CL-NIR-MRI**

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We-14P-76 **High Resolution Imaging of Artificial Membrane Protein by Direct Electron-beam Excitation Assisted Optical Microscope**

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We-14P-77 **Characterizing Next-generation Direct-Imprinted Campanile Tips**

T. Darlington[1], N. J. Borys[1], G. Calafiore[2], A. Koshelev[2], A. Weber-Bargioni[1], S. Babin[2], K. Munechika[2], S. Cabrini[1], P. J. Schuck[1], *[1]The Molecular Foundry, Lawrence Berkeley National Laboratory, USA, [2]aBeam Technologies, USA*

We-14P-78 **High-resolution Observation of Ultrafine Bubble by Direct Electron-beam Excitation Assisted Optical Microscope**

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We-14P-79 **Detection of Optical Near-field Helicity with a Phase Sensitive SNOM/NSOM System**

Lin Sun, Xiaoyu Wu, Benfeng Bai, Qiaofeng Tan, and Jia Wang, *State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instruments, Tsinghua University, China*

We-14P-80 **Active Nonlinear Meta-devices Based on Optical-thermodynamic Effects**

Sungjun In and Namkyoo Park, *Photonic Systems Laboratory, Dept. of ECE, Seoul National University, South Korea*

We-14P-81 **Transparent Far-infrared Shielding Metasurface with Randomly Dispersed Silver Nanorings**

H. Yoshizawa, H. Yasuda, T. Tani, and M. Naya, *FUJIFILM Corp. Frontier Core-Technology Laboratories, Japan*

We-14P-82 **Unidirectional Light Transmission by Two-layer Nanostructures Interacted via Optical Near-fields**

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We-14P-83 **Metamaterials Based Sky Radiator and Auxiliary Heat Mirror**

T. Liu[1], H. Hatada[1], and J. Takahara[1,2], *[1]Graduate School of Engineering, Osaka University, Japan, [2]Photonics Advanced Research Center, Osaka University, Japan*

We-14P-84 **Laser Microfabrication and Optical Properties of Metallic Spiral-based Perfect Absorber Metamaterial for Mid-infrared Frequencies**

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We-14P-85 **Nanoparticle Dispersed Liquid Crystal Metamaterials as Supporting Media of Dyakonov Surface Waves**

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We-14P-87 **A Study of Temperature Dependence for a Passive Near-field Microscope with Improved Signal-to-Noise Ratio**

Kuan-Ting Lin, Susumu Komiyama, Sunmi Kim, Ken-ichi Kawamura, and Yusuke Kajihara, *The University of Tokyo, Japan*

We-14P-88 **Nanoscale Chemical Identification by Infrared Near-field Spectroscopy (nano-FTIR)**
S. Mastel[1], A. A. Govyadinov[1], T. V. A. G. de Oliveira[1], I. Amenabar[1] and R. Hillenbrand[1,2], *[1]CIC nanoGUNE, Spain, [2]IKERBASQUE, Basque Foundation of Science, Spain*

We-14P-89 **Transmission Properties of Metallic Cut-wire Metamaterial Investigated by THz Time-domain Spectroscopy**
F. Toyoshima, M. Taniguchi, K. Okabe, F. Shimokawa, S. Nakanishi, and N. Tsurumachi, *Faculty of Engineering, Kagawa University, Japan*

We-14P-90 **Probing Current-induced Evanescent Wave on Gold with a Passive Near-field Microscope**
H. Nema[1], K.-T. Lin[1], S. Kim[1], S. Komiyama[2], and Y. Kajihara[1] , *[1]Institute of Industrial Science, The University of Tokyo, Japan, [2]Department of Basic Science, The University of Tokyo, Japan*

We-14P-91 **Far-IR s-SNOM with a Synchrotron Source**
Hans A. Bechtel[1], Michael C. Martin[1], Omar Khatib[2], Markus B. Raschke[2], and G. L. Carr[3,], *[1]Advanced Light Source, Lawrence Berkeley National Laboratory, USA, [2]University of Colorado at Boulder, USA, [3]Photon Sciences, Brookhaven National Laboratory, USA*

We-14P-92 **Deep-UV Plasmonics of Indium**
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We-14P-93 **UV-Visible Transmission through Nanohole Arrays in Aluminum and Magnesium**
J. Mao[1], Y. Wang[2], K. Appusamy[3], S. Guruswamy[3], and S. Blair[2], *[1]Department of Physics and Astronomy, University of Utah, USA, [2]Department of Electrical and Computer Engineering, University of Utah, USA, [3]Department of Chemistry, University of Utah, USA*

We-14P-94 **Auto-fluorescence Enhancement of Biological Cells using Surface Plasmon Resonance in Deep-Ultraviolet**
Taras Hanulia[1], Masakazu Kikawada[1], Atsushi Ono[1,2], Wataru Inami[1,2], and Yoshimasa Kawata[1,2], *[1]Graduate School of Science and Technology, Shizuoka University, Japan, [2]Research Institute of Electronics, Shizuoka University, Japan*

We-14P-95 **Film-supporting Metal Grating with Perfect Optical Absorption for Hot Electron Generation**
Z.Q Guan, W.Q. Wang, and H.X. Xu, *Center for Nanoscience and Nanotechnology and School of Physics and Technology, Wuhan University, Wuhan, People's Republic of China*

We-14P-96 **Rapid Bacterial Counting Method using Photothermal Effect**
Yasuyuki Yamamoto[1], Emi Shimizu[2], Yushi Nishimura[1], Shiho Tokonami[2] and Takuya Iida[1], *[1]Graduate School of Science, Osaka Prefecture University, Japan, [2]Graduate School of Engineering, Osaka Prefecture University, Japan*

We-14P-97 **Optical Detection of Metallic Nanoparticles via Photothermal Assembling of Microparticles**
Moe Miyai[1], Yushi Nishimura[1], Shiho Tokonami[2], and Takuya Iida[1], *[1]Graduate School of Science, Osaka Prefecture University, Japan, [2]Graduate School of Engineering, Osaka Prefecture University, Japan*

We-14P-98 **Folic Acid-conjugated Auag Nanoparticles Combined Surface Enhanced Raman Spectroscopy for Rapid Detection of Bladder Cancers in Urine**
Yao-Tzu Yang[1,2,3], Yi-Chun Chiu[4], Chun-Hung Lin[3], Mei-Yi Liao[2], Chih-Chia Huang[3], *[1]Department of Applied Chemistry, National Pingtung University, Taiwan, [2]Medical Laboratory Science and Biotechnology, National Cheng Kung University, Taiwan, [3]Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan, [4]Division of Urology, Department of Surgery, Zhong Xiao Branch, Taipei City Hospital, Taiwan*

We-14P-99 **Protein-protected Au Nanoclusters to Enhance the Singlet Oxygen Yields of Photosensitizer: the Mechanism Investigation and Application in Photodynamic Therapy**
Y. C. Wang and C. C. Huang, *Department of photonics, National Cheng Kung University, Taiwan (R.O.C.)*

We-14P-100 **Fe_3O_4-chlorophyllinnanocore-shell Structure Possessed Photon-assisted and Fenton-like Catalysis of Environment Pollutants**
Hsiu-Hsien Wen[1,2], I-Wen Sun[1], Mei-Yi Liao[3], Chih-Chia Huang[2], *[1]Department of Chemistry, National Cheng-Kung University, Taiwan, [2]Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan , [3]Department of Applied Chemistry, National Pingtung University, Taiwan*

We-14P-101 **Green Fabrication of Plasmonic Nanoparticle-paper as a Flexible Surface Enhanced Raman Scattering Substrate**
Chien-Wei Lee[1,2], Mei-Yi Liao[2], and Chih-Chia Huang[1], *[1]Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan, [2]Department of Applied Chemistry, National Pingtung University, Taiwan*

We-14P-102 **Development of Dual-function Optical Fe_3O_4 Nanoparticles: SERS Detection and Photothermal Therapy of Cancers**
Hao-Yu Chan[1] and Chih-Chia Huang[2], *[1]Department of Photonics, National Cheng Kung University, Taiwan, [2]Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan*

We-14P-104 **Green Synthesis of Gold-chlorophyll Nanoparticle for Targeted Optical Imaging and Photodynamic Therapy of Bladder Cancer Cells**
Tzu-Chi Huang and Mei-Yi Liao, *Department of Applied Chemistry, National Pingtung University, Taiwan*

We-14P-105 **Tea Polyphenols Supported Chloroauric Acid: Polyethylenimine Enhanced Blue Photoluminescence for Application in Cancer Cell Target**

Chia-Hung Wu and Chih-Chia Huang, *Department of Photonics, Center for Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan*

We-14P-106 **sSNOM for HAMR Characterization and Development**

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We-14P-107 **Waveguide Coupling of Single Photons from a Solid State Emitter**

Samuele Grandi, Claudio Polisseni, Kyle D. Major, Sebastien Boissier, Alex S. Clark, and Ed Hinds, *Centre for Cold Matter, Blackett Laboratory, Imperial College London, SW7 2AZ*