POSTER SESSION CONTRIBUTION: Pegasus Ballroom A-F
Judging Session 1: Sunday, March 12, 4:00 – 5:30 p.m.
Judging Session 2: Monday, March 13, 4:30-7 PM
Poster Session Chair: Mariana Sendova

Poster Number	Poster Title	Poster Author(s)
P-01	MEDIUM BASED BEHAVIOR OF NANO CERIA	A. S. Karakoti, Satyanarayana VNT Kuchibhatla, Ranjith Kumar T, Sudipta Seal
P-02	NANOCOMPOSITE β-TYPE ZEOLITE APPLICATIONS FOR POLYMER ELECTROLYTE MEMBRANE FUEL CELLS	Aaron Black, Amanda Gannon
P-03	DETECTION OF ARSENIC IMPLANTED INTO SILICON AT VERY LOW DOSES	Abhijeet Ardey and Gabriel Braunstein
P-04	ANALYSIS OF NANO-STUCTURED SnO2 SENSOR'S RESPONSE TO HYDROGEN GAS RESULTING FROM VARIOUS INDIUM QUANTITIES	Amaka Amalu , C. Drake , D. Bernard, S. Seal
P-05	DEFECT CHARACTERIZATION OF Cu(In,Ga)Se2 AND Cu(In,Ga)S2 ABSORBER LAYERS IN THIN FILM SOLAR CELLS	Ankush Halbe, Helge Heinrich, Sean Niemi, Anant Jahagirdar, Ankur Kadam
P-06	CHARACTERIZATION OF THE SHEAR MODULI OF POLYMER AND POLYMER/SOLVENT SYSTEMS USING A THICKNESS-SHEAR MODE (tsm) QUAERTZ RESONATOR.	Anthony Richardson, Venkat R. Bhethanabotla and Stefan Cular
P-07	OUTDOOR MONITORING AND HIGH VOLTAGE BIAS TESTING OF THIN FILM PHOTOVOLTAIC MODULES	Ashwani Kaul, Bhaskar Kumar, Santosh Khatri and Neelkanth G. Dhere
P-08	AFM ANALYSIS OF THE MECHANICAL AND STRUCTURAL PROPERTIES OF SEA CUCUMBER COLLAGEN FIBRILS	August J. Heim II , Thomas J. Koob, PhD and W. Garrett Matthews
P-09	ELECTRONIC TRAPS IN poly-(n-vinylcarbazole) CONDUCTING POLYMER FILMS	Bryan E. Wilson, Philip Chung and Paul Holloway
P-10	A MOLECULAR DYNAMICS SIMULATION OF THE ALUMINUM(111) ALPHA ALUMINA(0001) INTERFACE	Bryce D. Devinea, Alan McGaugheyb, Simon R. Phillpota, Susan B. Sinnott
P-11	THERMOMECHANICAL CYCLING IN SHAPE MEMORY ALLOYS INVESTIGATED USING DIFFERENTIAL SCANNING CALORIMETRY AND TRANSMISSION ELECTRON MICROSCOPY	Catherine Bewerse , M. Mistretta , M. Mahadevan Manjeri, L. Scott and R. Vaidyanathan
P-12	COMPOSITE SMART MATERIALS FOR USE IN WASTEWATER REMEDIATION	Cecil Coutinho, Vinay K. Gupta
P-13	OXYGEN DIFFUSION CHARACTERIZATION OF FIBER REINFORCED POLYMERS	Chandra Khoe, Justin Dodson, Venkat Bhethanabotla and Rajan Sen F. ASCE
P-14	PROPERTIES OF $(Ba_xSr_{1-x})FeO_3$ THIN FILMS AND MULTILAYERS	Charlee J. Callender, David Norton, Arthur Hebard, Ritesh Das, Josh Kelly
P-15	SYNTHESIS OF CdS/Au NANORODS AND THEIR APPLICATION IN PHOTOVOLTAIC CELLS	Hyeokjin Lee, Christopher Gorrie, Heesun Yang and Paul Holloway

P-16	TWO-PHOTON 3-D OPTICAL DATA STORAGE BASED ON REVERSIBLE FLUORESCENCE CONTROL FROM A FLUORENE-BASED DYE TO A PHOTOCHROMIC DIARYLETHENE	Claudia C. Corredor Kevin D. Belfield, Zhen-Li Huang, Ion Cohanoschi, Florencio E. Hernandez
P-17	MICRO-RAMAN SPECTROSCOPY CHARACTERIZATION OF DELLA ROBBIA GLAZES	C. Gulliford M. Sendova, V. Zhelyaskov, M. Scalera,
P-18	NOVEL POLYMER-METAL NANO-COMPOSITES FOR APPLICATIONS IN DETECTION AND SENSING	Dayling L. Chaparro*, Vinay K. Gupta
P-19	OXYGEN VACANCY BEHAVIOR IN CUBIC BISMUTH OXIDE: A MOLECULAR DYNAMICS APPROACH	Dilpuneet S. Aidhy, Susan B. Sinnott, Eric D. Wachsman, Simon R. Phillpot
P-20	FUNDAMENTAL REACTION PROCESSES FOR CO OXIDATION AT GOLD NANOPARTICLES STUDIED USING DENSITY-FUNCTIONAL THEORY	Enrique Ortiz, Santosh Kumar, and Patrick K. Schelli
P-21	NEAR IR ELECTROLUMINECSENT STUDIES OF ZnS PHOTONIC CRYSTAL	Evan Law, Paul Holloway, and Nigel Shepherd
P-22	CHARACTERIZATION OF NANOTRIBOLOGY ON THIN FILMS	G.R. Bourne, and W.G. Sawyer
P-23	PRECISION MOLDING OF METALLIC MICRO-COMPONENTS	J.A. Bardt, G.R. Bourne, W.G. Sawyer, T.L. Schmitz, and J.C. Ziegert
P-24	TEMPERATURE DEPENDENCE OF CONDUCTIVITY IN P-TYPE ZnO POLYCRYSTALLINE THIN FILMS	H. Saxena, A. Muraviev,G. Braunstein, N. Dhere, V. Richter, and R. Kalish
P-25	INVESTIGATION OF POLYTHIOPHENE INTERFACES VIA PHOTOEMISSION SPECOTROSCOPY AND ELECTROSPRAY THIN FILM DEPOSITION	James Lyon, Yeonjin Yi, Anthony Cascio, Martin Beerbom, and Rudy Schlaf
P-26	DETERMINATION OF MgO/GaN and Zn0.95Cd0.05O/ZnO HETEROJUNCTION BAND OFFSETS BY X-RAY PHOTOELECTRON SPECTROSCOPY	J. -J. Chen, B. P. Gila, M. Hlad, A. Gerger, F. Ren, Y. Li, C. R. Abernathy, D. P. Norton, S. J. Pearton, A. Osinsky, J. W. Dong, B. Hertog, P. P. Chow and J. F. Weaver
P-27	IN-SITU FIB PREPARATION OF LEAP SAMPLES	J.S. Moore, K.S. Jones, and K. Thompson
P-28	MEASUREMENT OF RNA DENSITY OF STATES, IONIZATION ENERGY, WORK FUNCTION AND CHARGE INJECTION BARRIERS TO INORGANIC MATERIALS	M.M. Beerbom, J. Magulick, B. Lagel, A.J. Cascio, R. Schlaf
P-29	THERMALLY STABLE BORIDE OHMIC CONTACTS ON n-ZnO	J.S. Wright, R. Khanna, D.P. Norton, S.J. Pearton, F. Ren, I. Kravchenko
P-30	RECOVERY ASPECTS OF DOPED NANOSTRUCTURE TIN OXIDE FOR SENSOR APPLICATION	J.Bernard, C.Drake, A.Amalu, S.Seal
P-31	IONIZATION AND MOLECULAR RECOGNITION PHENOMENA IN SELF-ASSEMBLED SURFACES OF BOWL-SHAPED MACROCYLIC MOLECULES	Justine Molas,Vinay K. Gupta
P-32	SYNERGISTIC GROWTH AND CHARACTERIZATION OF Hf-O-N AND ALLOYED TRANSITION METAL OXIDE THIN FILMS FOR ALTERNATE GATE DIELECTRIC APPLICATIONS	Karthik Ramani, Valentin Craciun and Rajiv K. Singh

P-33	BORIDE-BASED THERMALLY STABLE OHMIC CONTACTS TO P-GaN	Lars Voss , Rohit Khanna , S.J. Pearton , and F. Ren
P-34	HIGHLY SELECTIVE HYDROGEN SENSING AT ROOM TEMPERATURE WITH PLATINUM-FUNCTIONALIZED ZnO THIN FILMS AND NANORODS	L. C. Tien, P. W. Sadik, D. P. Norton, L. F. Voss and S. J. Pearton
P-35	FTIR SPECTROSCOPY ANALYSIS OF NANOCRYSTALLINE OXIDES FOR H2 GAS SENSING APPLICATION	Linda K. Nguyen, Christina Drake, Sudipta Seal*
P-36	Pd FUNCTIONALIZED CARBON NANOTUBE FOR HYDROGEN DETECTION: A FIRST PRINCIPLE STUDY	Ling Miao, Venkat R. Bhethanabotla and Babu Joseph
P-37	IN-SITU GAS-PHASE CATALYTIC PROPERTIES OF SIZE SELECTED GOLD NANOPARTICLES SYNTHESIZED BY DIBLOCK COPOLYMER ENCAPSULATION	Luis K.Ono, Ahmed Naitabdi, Beatriz Roldán Cuenya
P-38	MAGNETIC PROPERTIES AND OBSERVATION OF ANOMALOUS HALL EFFECT IN COBALT-DOPED ZnO	M. Ivill, R. Pate, S. Rawal, D.P. Norton, R. Das, A.F. Hebard
P-39	STRAIN RELAXATION AND SOLID PHASE EPITAXIAL REGROWTH IN ION-IMPLANTED STRAINED SILICON ON RELAXED SIGE	M.S. Phen, V. Craciun, K. S. Jones, M.E. Law, J.L. Hansen and A.N. Larsen
P-40	PREPARATION AND CHARACTERIZATION OF CuIn1-xGaxS2 THIN FILM SOLAR CELLS FOR PHOTOELECTROCHEMICAL WATER SPLITTING	Anant H. Jahagirdar, Parag S. Vasekar, Upendra S. Avachat and Neelkanth G. Dher
P-41	MECHANICAL PROPERTIES OF SURFACTANT AGGREGATES AT LIQUID-SOLID INTERFACES: MOLECULAR DYNAMICS SIMULATIONS	Patrick Chiu*, Kunal Shah, Susan B. Sinnott
P-42	EXAMINATION OF THIOL ADSORPTION ON Zn-TERMINATED AND O-TERMINATED SUBSTRATES	Patrick Sadik and David P. Norton
P-43	NANOINDENTATION RESPONSE OF A Fe-BASED BULK METALLIC GLASS	Prakash Palanisamy, S. Sridharan, C. Suryanarayana, R. Vaidyanathan
P-44	CHARACTERIZATION OF NiTiFe SHAPE MEMORY ALLOYS	R. Mahadevan Manjeri, D. Nandiraju, V.B. Krishnan, C.N. Bewerse and R. Vaidyanathan
P-45	SURFACE EFFECTS IN PbTiO3 THIN FILM: A MOLECULAR DYNAMICS STUDY	Rakesh K. Behera, Susan B. Sinnott and Simon R. Phillpot
P-46	RAMAN SPECTROSCOPY OF SnSe-FILLED DOUBLE-WALLED CARBON NANOTUBES	R. Briceno, Mariana Sendova, B. DeBono, E. Flahaut
P-47	THERMAL STABILITY OF W2B OHMIC CONTACTS TO GaN	Khanna ,C.J.Kao ,I.Kravchenko ,F.Ren ,G.C.Chi ,S.J.Pearton ,A.Dabiran and A.Osinsky
P-48	LASER-ASSISTED MODIFICATION OF GOLD NANOCLUSTERS IN SiO2 and Al2O3 THIN FILMS	Rose Ruther, Mariana Sendova, Marushka Vassileva*
P-49	Cu(In1-xGax)(Se2-y-Sy) THIN FILM SOLAR CELL FABRICATED BY RAPID THERMAL PROCESSING	Sachin S. Kulkarni, Jyoti S. Shirolikar and Neelkanth G. Dher
P-50	SYNTHESIS OF AMORPHOUS Fe-BASED MULTI-COMPONENT ALLOYS	S. Sharma and C. Suryanarayana
P-51	DATA MINING FOR HIGH-THROUGHPUT SYNCHROTRON SPECTROSCOPIES	S Goela, S Schroederb

P-52	PROPERTIES OF W-Ge-N DEPOSITED ON Ge AS A DIFFUSION BARRIER FOR Cu	S. Rawal , D. P. Norton , T. J. Anderson , L. McElwee-White
P-53	INFLUENCE OF FILLING AND TEMPERATURE ON THE MECHANICAL RESPONSES OF CARBON NANOTUBES	SeongJun Heo, Susan B. Sinnott
P-54	TOWARD DESIGN OF MORE EFFICIENT NONLINEAR OPTICAL MATERIALS	Sergio Tafur & Artem Masunov
P-55	MOLECULAR DYNAMICS SIMULATION OF THE IRRADIATION AND NANOMECHANICS OF CARBON NANOTUBES AND POLYMER CARBON NANOTUBE COMPOSITES	Sharon K. Pregler, Susan B. Sinnott
P-56	STUDY OF INTERDIFFUSION OF METALLIC PRECURSORS FOR ULTRA-THIN CIGS/CDS SOLAR CELLS	Shirish A. Pethe, Ankur A. Kadam, Parag S. Vasekar and Neelkanth G. Dhere
P-57	DENSITY FUNCTIONAL THEORY STUDY OF BULK AND SURFACE OF CERIUM OXIDES	Shruba Gangopadhyay, Artëm Masunov, Swanand Patil, and Sudipta Seal
P-58	DECOMPOSITION OF METHANOL ON SIZE SELECTED IRIDIUM NANOPARTICLES	Jason Croy, Simon Mostafa, Beatriz Roldan
P-59	SYNTHESIS AND OPTICAL PROPERTIES OF SHAPE-CONTROLLED EUROPIUM-DOPED GADOLINIUM OXIDE NANOCRYSTALS	Sooyeon Seo, Heesun Yang, and Paul H. Holloway
P-60	MICROSTRUCTURAL ANALYSIS AND MECHANICAL CHARACTERIZATION OF A Zr-BASED BULK METALLIC GLASS USING INSTRUMENTED INDENTATION	Subhaashree Sridharan , Prakash Palanisamy ,C. Suryanarayana , R. Vaidyanathan
P-61	PHASE TRANSITIONS IN ALLOY NANOCLUSTERS AND NANOWIRES	Subramanian Sankaranarayanan, Babu Joseph and Venkat R. Bhethanabotla
P-62	INTERFACIAL THERMAL TRANSPORT IN DIAMOND: INSIGHTS FROM SIMULATION	Taku Watanabe and Simon R. Phillpot, Patrick K. Schelling, Pawel Keblinski
P-63	MICROSTRUTURAL EVOLUTION IN AN Al-In ALLOY UNDERGOING SPINODAL DECOMPOSITION	Umamaheswara Rao Seelam , G.V.S Sastry
P-64	SYNTHESIS AND CHARACTERIZATION OF NANOCRYSTALLINE BARIUM STRONTIUM TITANATE CERAMICS	Vikas Somani, Narayana Garimella and Samar J. Kalita
P-65	NEUTRON DIFFRACTION MEASUREMENTS IN NiTiFe SHAPE MEMORY ALLOYS DURING LOADING AT CRYOGENIC TEMPERATURES	Vinu B. Krishnan , T.R. Woodruff , S. Shmalo , B. Clausen , D. Brown , M.A.M. Bourke and R. Vaidyanathan
P-66	THE EFFECT OF CH4 AND C2H6-BASED PLASMA DISCHARGE ON BULK SINGLE-CRYSTAL ZnO	Wantae Lim, Lars F. Voss, Rohit Khanna, Jon Wright, B. P. Gila, D. P. Norton, S. J. Pearton and F. Ren
P-67	STUDY OF METHANOL ADSORPTION AND REACTION ON COPPER CLUSTERS BY AB INITIO MOLECULAR DYNAMICS SIMULATIONS	Wen-Dung Hsu, and Susan B. Sinnott
P-68	DETECTION OF EXPLOSIVE MATERIALS BY DIFFERENTIAL REFLECTION SPECTROSCOPY	Rolf E. Hummel, Anna M. Fuller, Claus Schöllhorn, and Paul H. Holloway
P-69	CREATING CROSS-SECTIONAL TEM SINGLE CRYSTAL DIAMOND SAMPLES USING FOCUSED ION BEAM AND IN-SITU LIFT OUT	D.P. Hickey, E. Kuryliw, K.S. Jones