List of Publications Of Prof. A.K. Raychaudhuri

(Up dated June 2013 in reverse order)

2013

. Rabaya Basori K. Das, Prashant Kumar, K.S.Narayan, A. K. Raychaudhuri
(2013) "Large photoresponse of Cu:TCNQ nanowire arrays formed as aligned nanobridges".
Appl. Phys. Lett. **102**, 061111 ;

Rajesh Kumar Neogy, A. K. Raychaudhuri
(2013) "Effect of stabilizer on dynamic thermal transport of nanofluids"
Nanoscale Research letters , **8**:125

Rajib Nath, A. K. Raychaudhuri, Ya. M. Mukovskii, Parthasarathi Mondal, Dipten Bhattacharya and P. Mandal
(2013) "Electric field driven destabilization of the insulating state in nominally pure $LaMnO_3$
J.Phys.: Condensed Matter **25** 155605

Putul Malla Chowdhury, · Barnali Ghosh, · A.K.Raychaudhuri , ·S.D.Kaushik, · V. Siruguri
(2013) "Stability of charge and orbital order in half-doped $Y_{0.5}C\ a_{0.5}MnO_3$ nano crystallites"
J. Nanoparticle Research. **15**, 1585

Sudeshna Samanta, ¤ K. Dasand A. K. Raychaudhuri
(2013) "Low frequency °ficker noise in a MSM device made with single Si Nanowire (diameter~50nm)"
Nanoscale Research letters , **8** 165

_Anis Biswas, Sayan Chandra, Tapas Samanta, Barnali Ghosh, Subarna Datta, M. H. Phan, A. K. Raychaudhuri, I. Das, and H. Srikanth,
(2013) "Universality in the entropy change for the inverse magnetocaloric effect" .
Phys. Rev B **87**, 134420

2012

S. Chandra , A.I. Figueroa , Barnali Ghosh , A.K. Raychaudhuri , M.H. Phan , P. Mukherjee , H. Srikanth .
(2012) "Fabrication and magnetic response probed by RF transverse susceptibility in La0.67Ca0.33MnO3 nanowires". Physica B **407** 175–178

Sudeshna Samanta, A. K. Raychaudhuri, Ya. M. Mukhovskii
(2012) "Non-Gaussian resistance noise in the ferromagnetic insulating state of a hole doped manganite." Physical Review **85**, 045127

K. Das · S. Das · R. K. Singha · S. K. Ray · A. K. Raychaudhuri
(2012) "Preferential ordering of self-assembled Ge islands on focused ion-beam patterned Si(100)"
J Nanopart Res . **14**, 725

Tapati Sarkar, . M. Venkata Kamalakar and A.K.Raychaudhuri
(2012) "Electrical transport properties of nanostructured ferromagnetic perovskite oxides $La_{0.67}Ca_{0.33}MnO_3$ and $La_{0.5}Sr_{0.5}CoO_3$ at low temperatures (5 K >T > 0.3 K) and high magnetic field".
New J. of Physics **14** 033026

M. Venkata Kamalakar and A. K. Raychaudhuri

(2012) "Temperature dependent (3K≤ T ≤300K) electrical transport in Cu nanotubes grown in porous alumina templates." ". New J. of Physics **14** 043032.

Ruma Manda1, Susmita Saha, Dheeraj Kumar, Saswati Barman, Semanti Pal, Kaustuv Das, Arup Kumar Raychaudhuri, Yasuhiro Fukuma, YoshiChika Otani and Anjan Barman
(2012) "Optically Induced Tunable Magnetization Dynamics in Nanoscale Co Antidot Lattices" ACS NANO **6** 3397 .

Debdutta Lahiri, S. Khalid, Tapati Sarkar, A. K. Raychaudhuri and Surinder M. Sharma
(2012) "**XAFS investigation of the role of orientational disorder in the stabilization of ferromagnetic metallic phase in nanoparticles of $La_{0.5}Ca_{0.5}MnO_3$** " J.Phys.: Condensed Matter **24** 336001

Soma Biswas, A.K. Raychaudhuri, P.A. Sreeram, Dirk Dietzel
(2012) "Tuning the instability in Static Mode Atomic Force Spectroscopy as obtained in an AFM by applying an electric field between the tip and the substrate." Ultramicroscopy **122** 19

Sayan Chandra , Anis Biswas , Subarna Dutta , Barnali Ghosh , V. Siruguri , A.K. Raychaudhuri , M.H. Phan and H. Srikanth
(2012) "Evidence of canted magnetic state in self-doped $LaMnO_{3+\delta}$ ($\delta \approx 0.04$): A magnetocaloric study ". J.Phys.: Condensed Matter **24** 366004

J P Naik , K. Das, P D Prewett , A K Raychaudhuri
(2012) "**Liquid like instabilities in Gold Nanowires Fabricated by Focused Ion Beam Lithography"** Appl. Phys. Letts **101**, 163108

Anupam Giri; Nirmal Goswami,; M Bootharaju,.; Lourdu Paulrajpillai; , Robin John; Nguyen Thanh,; Thalappi Pradeep, ; Barnali Ghosh,; Arup Raychaudhuri,; Samir Pal,
(2012) "Emergence of Multicolor Photoluminescence in $La_{0.67}Sr_{0.33}MnO_3$ Nanoparticles" Journal of Physical Chemistry C **116**, 25623

2011

Sarathi Kundu and A. K. Raychaudhuri
(2011) "Effect of water and air-water interface on the structural modification of Ni-Arachidate Langmuir-Blodgett films ". Journal of Colloid and Interface Science **353,** 316

Shanewaz Mandal and A.K.Raychaudhuri
(2011) "Observation of a large gate- controlled persistent photoconduction in single crystal ZnO at room temperatures". Appl Phys.Letts **98**, 023501

S. Chandra, Barnali Ghosh, A. K. Raychaudhuri, M. H. Phan and H. Srikanth
(2011) "Fabrication and Magnetic anisotropy study of $La_{0.67}Ca_{0.33}MnO_3$ nanowires" J. Appl. Phys**. 109**, 07D720

Manoranjan Ghosh and A. K. Raychaudhuri
(2011) "Field induced reversible control of visible luminescence from ZnO nanostructures" Appl.Phys. Letts **98,** 153109

Barnali Ghosh, K. Das and A.K. Raychaudhuriţ
(2011) " Voltage bias induced modification of all oxide $Pr_{0.5}Ca_{0.5}MnO_3/SrTi_{0.95}Nb_{05}O_3$ junctions" J. Appl. Phys. **109**, 083934

S Batabyal,; A. Makhal,; K,Das, A.K.Raychaudhuri,S.K.Pal
(2011) "Ultrafast dynamics of excitons in semiconductor quantum dots on a plasmonically active nano-structured silver film"

Nanotechnology **22,** 195704

J P Naik, P D Prewett, K Das, A K Raychaudhuri
(2011) "Instabilities in Focused Ion Beam-Patterned Au Nanowires".
Microelectronic Engineering **88** , 2840

S. Das, K Das, R K Singha, S Manna, A Dhar, S K Ray and A K Raychaudhuri,
(2011) "Improved infra-red photoluminescence characteristics from circularly ordered self-assembled Ge islands",
Nanoscale Research Letters **6,** 416

Manotosh Chakravorty, Kaustuv Das, A.K.Raychaudhuri , J P Naik and P D Prewett
(2011) "Temperature and strain dependent resistance of platinum nanowires grown by focused ion beam on SiO_2/Si substrate". Microelectronic Engineering **88**, 3360

2010

T Phanindra Sai and A K Raychaudhuri
(2010) "Observation of Peierls transition in nanowires (diameter ~130nm) of charge transfer molecule TTF:TCNQ synthesized by electric field directed growth" Nanotechnology **21** 045703

Soma Das, A.K.Raychaudhuri, P.A.Sreeram, Dirk Dietzl
(2010) "**The effect of intrinsic instability of cantilever on static mode atomic force spectroscopy "**
Nanotechnology **21** 045706

Rabibrata Mukherjee, Soma Das, Anindya Das, Satinder Sharma, Arup K. Raychaudhuri and Ashutosh Sharma
(2010) "Stability and Dewetting of Metal Nanoparticles Filled Thin Polymer Films: Control of Instability Lengthscale and Dynamics". ACS NANO **4** 3709

K.S. Nagapriya, A. K Raychaudhuri
(2010)"Thermal fluctuation spectroscopy of DNA thermal denaturation",
Biophysical Journal **99,** 2666

Abhinandan Makhal, Soumik Sarkar† Tanujjal Bora, Sunandan Baruah, Joydeep Dutta,
A. K. Raychaudhuri and Samir Kumar Pal
(2010) "Role of Resonance Energy Transfer in Light Harvesting of Zinc Oxide-Based Dye-Sensitized Solar Cells " J. Phys. Chem. **C 114**, 10390

Abhinandan Makhal, Soumik Sarkar Tanujjal Bora, Sunandan Baruah, Joydeep Dutta,
A. K. Raychaudhuri and Samir Kumar Pal
(2010) "Dynamics of light harvesting in ZnO nanoparticles". Nanotechnology **21** 265703

S K Chaudhuri1, Manoranjan Ghosh, D Das and A K Raychaudhuri
(2010) "Probing defects in chemically synthesized ZnO nanostrucures by Positron Annihilation and Photoluminescence Spectroscopy". J.Appl. Phys**. 108**, 064319

Anupam Giri, Abhinandan Makhal, Barnali Ghosh, A. K. Raychaudhuri and Samir Kumar Pal
(2010) "Functionalization of Manganite Nanoparticles and their interaction with biologically relevant small ligands: Picosecond Time-Resolved FRET Studies" RSC NANOSCALE **2,** 2704

M. Venkata Kamalakar and A. K. Raychaudhuri
(2010) " Resistance anomaly near phase transition in confined ferromagnetic nanowires".
Physical Review B **82**, 195425

Tapati Sarkar , A. K. Raychaudhuri,A. K. Bera and S. M. Yusuf

(2010) "Effect of size reduction on the ferromagnetism of the manganite La_{1-x} Ca_xMnO_3 (x=0.33)". New Journal of Physics **12** 123026

2009

Achuyt Bora and A.K.Raychaudhuri
(2009) "Scanning Thermal Microscope Study of a Metal Film Under Current Stressing: Role of Temperature Inhomogeneity in Damage Process". J.Phys D: Applied Physics **42** , 035503

Sunandan Baruah, Sudarson Sekhar Sinha, Barnali Ghosh, Samir Kumar Pal, A. K. Raychaudhuri, and Joydeep Dutta.
(2009) "**Photoreactivity of ZnO nanoparticles in visible light: Effect of surface states on electron transfer reaction".** Journal of Applied Physics **105**, 074308.

M. Venkata Kamalakar and A.K.Raychaudhuri
(2009) "Low temperature electrical Transport in ferromagnetic Ni Nanowires".
.PHYSICAL REVIEW B **79**, 205417

Barnali Ghosh, Dipten Bhattacharya, S. Patnaik, A.K. Raychaudhuri and S. Arumugam
(2009) "Large magnetocapacitance effect in single crystal bilayer manganite $Pr(Sr_{0.1}Ca_{0.9})_2Mn_2O_7$ near the Neel Temperature. J. Appl. Phys. **105**, 123914

S. Arumugam, Barnali Ghosh and A. K. Raychaudhuri
(2009) "Pressure (P > 8*GPa*) induced metallization of ferromagnetic insulating $La_{0.79}Ca_{0.21}MnO_3$"
J. Appl. Phys. **106**, 023905

Rajesh Kumar Neogy and A. K. Raychaudhuri
(2009) "**Frequency dependent enhancement of heat transport in nanofluid with ZnO nanoparticles**
Nanotechnology **20** 305706

M. Venkata Kamalakar, A. K. Raychaudhuri, Xueyong Wei, Jason Teng and Philip D Prewett
(2009) "Temperature dependent electrical resistivity of a single crystalline ferromagnetic nanowire"
Appl.Phys.Letts. **95**, 013112

Tapati Sarkar, M. Venkata Kamalakar, and A. K. Raychaudhuri
(2009) "Transport Properties of Nanoparticles of Complex Oxides: Likely Presence of Coulomb Blockade at Low Temperature" Journal of Nanoscience and Nanotechnology **9**, 5315

Sudeshna Samanta, M. Venkata Kamalakar, and A. K. Raychaudhuri
(2009) "Investigation of Very Low-Frequency Noise in Ferromagnetic Nickel Nano wires"
Journal of Nanoscience and Nanotechnology **9**, 5243

Manoranjan Ghosh,Nita Dilawar, A. K. Bandyopadhyay, and A. K. Raychaudhuri1
(2009) "Phonon dynamics of Zn_{1-x} Mg,CdO alloy nanostructures and their phase segregation"
J. Appl. Phys. **106,** 084306

M. Venkata Kamalakar and A. K. Raychaudhuri
(2009) "Critical Phenomena in Magnetic Nanowires",
Journal of Nanoscience and Nanotechnology **9**, 5248

Barnali Ghosh and A.K.Raychaudhuri
(2009) "Synthesis and Physical Properties of Ordered Arrays of Nanowires of Complex Functional Oxides" Journal of Nanoscience and Nanotechnology **9**, 5533

D. Mohanta, S.S. Narayanan, S.K. Pal and A.K. Raychaudhuri

(2009) "Time-resolved photoluminescence decay characteristics of bovine serum albumin-conjugated semiconductor nanocrystallites" Journal of Experimental Nanoscience **4,** 177

Soma Das and A.K.Raychaudhuri
(2009) "Growth of Atomically Smooth Films of Metal-Arachidates by Langmuir-Blodgett Technique" Journal of Nanoscience and Nanotechnology **9**, 5362