

### Publications 2007:

1. Microwave spectrum of trans 3-fluorophenol in excited torsional states: A. I. Jaman, J.Mol.Spectrosc. **245**, 21 (2007).
2. Millimeterwave spectrum of ICN, a transient molecule of chemical and astrophysical interest: A. I. Jaman, J.Phys: Conference Series 80, 012006 (2007).
3. Correlation between structural, transport, and magnetic properties in  $\text{Sm}_{1-x}\text{A}_x\text{MnO}_3$  (A=Sr,Ca): P. Mandal, A. Hassen, J. Appl. Phys. **101**, 113917 (2007).
4. Dielectric anomaly at TN in  $\text{LaMnO}_3$  as a signature of coupling between spin and orbital degrees of freedom: P. Mondal, D. Bhattacharya, P. Choudhury, and P. Mandal, Phys. Rev. **B76**, 172403 (2007).
5. Magnetization and  $^{63}\text{Cu}$  NMR studies on granular FeCu alloys: B. Bandyopadhyay, B. Pahari, and K. Ghoshray, Phys. Rev. **B76**, 214424 (2007).
6.  $^{27}\text{Al}$  NMR in grain aligned  $\text{PrNi}_2\text{Al}_5$ : A.Ghoshray, R.Sarkar, B.Pahari, K.Ghoshray and B. Bandyopadhyay, J. Mag. Magn. Mat. **310**,371 (2007).
7. Crystal field calculation of  $\text{Pr}^{3+}$  in orthorhombic  $\text{PrNi}_2\text{Al}_5$  from  $^{27}\text{Al}$  NMR Knight shift: R.Sarkar, A. Ghoshray and K. Ghoshray, J. Phys. Condens. Matter **19**, 086202 (2007).
8. Impurity induced antiferromagnetic order in Haldane gap compound  $\text{SrNi}_{2-x}\text{Mg}_x\text{O}_8$ : B. Pahari, K. Ghoshray, A. Ghoshray, T. Samanta and I. Das, Physica **B395** 138 (2007).
9.  $^{31}\text{P}$  NMR of trimer cluster compound  $\text{Sr}_3\text{Cu}_3(\text{PO}_4)_4$ : M. Ghosh, K.Ghoshray, B. Pahari, R. Sarkar and A. Ghoshray, J. Phys. Chem. Solids **68** 2183 (2007).
10. A Comparative Study of the Magnetic Properties and Phase Separation Behavior of the Rare Earth Cobaltates,  $\text{Ln}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$  (Ln=Rare Earth): Asish Kundu, R. Sarkar, B. Pahari, A. Ghoshray and C.N.R. Rao, J. Solid State Chemistry **180**, 1318 (2007).
11. Giant magnetocaloric effect in antiferromagnetic  $\text{ErRu}_2\text{Si}_2$  compound: Tapas Samanta, I. Das and S. Banerjee, Appl. Phys. Lett. **91**, 152506 (2007).
12. Magnetocaloric effect in  $\text{Ho}_5\text{Pd}_2$ : Evidence of large cooling power: Tapas Samanta, I. Das and S. Banerjee; Appl. Phys. Lett. **91**, 082511 (2007).
13. Magnetotransport properties of nanocrystalline  $\text{Pr}_{0.65}(\text{Ca}_{1-y}\text{Sr}_y)_{0.35}\text{MnO}_3$  ( $y \sim 0.4, 0.3$ ):Influence of phase coexistence: Anis Biswas and I. Das, Applied Physics Letters **91**, 013107 (2007).
14. Magnetic and transport properties of nanocrystalline  $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ : Anis Biswas and I. Das; Journal of Applied Physics **102**, 064303 (2007)

15. Unified description of spin dependent transport in granular ferromagnetic manganites: Soumik Mukhopadhyay and I. Das  
Phys. Rev. **B76**, 094424 (2007).
16. Low temperature magnetotransport properties in granular ferromagnetic manganites: Soumik Mukhopadhyay and I. Das; Europhys. Lett **79**, 67002 (2007).
17. Smooth crossover from variable range hopping with Coulomb gap to nearest neighbour inter-chain hopping in conducting polymer: Sanjib Maji, Soumik Mukhopadhyay, R. Gangopadhyay and A. De; Phys. Rev. **B75**, 073202 (2007).
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21. Structural and magnetic studies on spark plasma sintered  $\text{SmCo}_5$  /Fe bulk nanocomposite magnets, N.V. Ramarao ,R.Gopalan, M.Manivel Raja, V.Chandrasekaran, D.Chakravarty, R.Sundaresan, R.Ranganathan and K.Hono; J. Magn. Magn. Mater. **312**, 252 (2007).
22. Positron annihilation spectroscopic studies of the influence of heat treatment on defect evolution in hybrid MWCNT-polyacrylonitrile-based carbon fibers, K Chakrabarti, P M G Nambissan, C D Mukherjee, K K Bardhan, C Kim, K S Yang, Carbon **45**, 2777 (2007).