

## LIST OF PUBLICATIONS

### PUBLISHED/ACCEPTED FOR PUBLICATION IN JOURNALS

1. **Atchudan, R.**, Pandurangan, A. and Somanathan, T. “Bimetallic mesoporous materials for high yield synthesis of carbon nanotubes by chemical vapour deposition techniques”, *J. Mol. Catal. A: Chem.*, Vol. 309, pp. 146–152, 2009.
2. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Thermo-mechanical behaviour and electrical conductivity of MWNTs/epoxy nanocomposites”, *ISRS-Proc.*, ISSN No. : 0973-659X, pp. 247–250, 2010.
3. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Effect of reaction parameters on the growth of MWCNTs using mesoporous Sb/MCM-41 by chemical vapour deposition”, *Appl. Surf. Sci.*, Vol. 258, pp. 1045–1051, 2011.
4. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Synthesis of MWCNTs by the decomposition of acetylene over mesoporous Ni/Cr-MCM-41 catalyst and its functionalization”, *J. Por. Mater.*, 2011, DOI:10.1007/s10934-011-9533-2.
5. **Atchudan, R.** and Pandurangan, A. “The use of bimetallic MCM-41 mesoporous catalysts for the synthesis of MWCNTs by chemical vapour deposition”, *J. Mol. Catal. A: Chem.*, 2011, DOI:10.1016/j.molcata.2011.11.028.
6. **Atchudan, R.** and Pandurangan, A. “Growth of ordered multi-walled carbon nanotubes (MWCNTs) over mesoporous 3D cubic Zn/Fe molecular sieves and its use in the fabrication of MWCNT/epoxy composites”, *Carbon*, 2011, (Under Review).
7. **Atchudan, R.**, Pandurangan, A., Thangapandian N. and Subramanian, K. “Efficient fabrication and investigation of MWCNT/epoxy nanocomposites”, *J. Poly. Res.*, 2011, (Communicated).

**PAPERS PRESENTED IN CONFERENCES/SYMPOSIA**

1. **Atchudan, R.**, Somanathan, T. and Pandurangan, A. “Production of carbon nanotubes using Ti incorporated MCM-41 molecular sieves by chemical vapour deposition method”, International Conference on Nanoscience and Nanotechnology (ICNSNT-2006)”, at Centre for Nanoscience and Nanotechnology, University of Madras, Guindy Campus, Chennai-600 025, India, August 26–28, 2006.
2. Somanathan, T., **Atchudan, R.** and Pandurangan, A. “Mesoporous MCM-41 materials as catalytic template for the growth of carbon nanotubes by chemical vapour deposition method”, International Conference on Nanomaterials and its Applications, at Department of Chemistry, National Institute of Technology, Tiruchirappalli-620 015, India, February 4–6, 2007.
3. **Atchudan, R.** and Pandurangan, A. “Catalytic influence of bimetallic phase for the synthesis of carbon nanotubes by chemical vapour deposition method”, Catalysis for Future Fuels 18<sup>th</sup> National Symposium and Indo-Us Seminar on Catalysis, at Indian Institute of Petroleum, Dehradun-248 005, India, April 16–18, 2007.
4. **Atchudan, R.** and Pandurangan, A. “Magnesium oxide supported metal catalysts for the production of carbon nanotubes by chemical vapour deposition method”, National Workshop on Catalysis Futuristic Materials as Catalysts and Adsorbents (CATWORKSHOP-2008), at Institute of Minerals and Materials Technology, Bhubaneswar-751 013, Orissa, India, February 18–20, 2008.
5. Chandrakishore, S., **Atchudan, R.**, Pandurangan, A. and Jayavel, R. “Formation of carbon nanotubes embedded in polyimide film for nanofloating gate memory”, National Workshop on Catalysis Futuristic Materials as Catalysts and Adsorbents (CATWORKSHOP-2008), at Institute of Minerals and Materials Technology, Bhubaneswar-751 013, Orissa, India, February 18–20, 2008.
6. **Atchudan, R.**, Pandurangan, A. and Santhosh, R. “Synthesis of multi-walled carbon nanotubes using Co/MgO by CVD method and thermo-mechanical properties of epoxy and CNT/epoxy composites”, International Conference on Nano Science and Technology (ICONSAT-2008), at Indira Gandhi Centre for Atomic Research, Kalpakkam-603 102, Tamilnadu, India, February 27–29, 2008.
7. **Atchudan, R.** and Pandurangan, A. “Effect of metal concentration and temperature for the synthesis of carbon nanotubes by chemical vapour

deposition method”, International Symposium for Research Scholar (ISRS-2008), at Department of Metallurgical and Materials Engineering, Indian Institute of Technology-Madras, Chennai-600 036, India, December 10–12, 2008.

8. **Atchudan, R.**, Somanathan, T. and Pandurangan, A. “Synthesis and characterization of cubic mesoporous 3D Fe-KIT-6 and its application towards the growth of carbon nanotubes by chemical vapour deposition method”, Catalysis for Sustainable Energy and Chemicals Nineteenth National Symposium on Catalysis (CATSYM-19), at National Chemical Laboratory, Pune-411 008, India, January 18–21, 2009.
9. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Synthesis and characterization of carbon nanotubes by CVD method and its functionalization”, National Conference on Materials Science (MATS-2009), at Department of Chemistry, Annamalai University, Chidambaram-608 002, India, October 9–10, 2009.
10. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Mesoporous materials an efficient catalyst for the synthesis of carbon nanotubes by chemical vapour deposition method”, Indo-Hungarian Workshop on Catalysis, at National Centre for Catalysis Research, Indian Institute of Technology-Madras, Chennai-600 036, India, February 16–18, 2010.
11. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Effect of nanoporous heterogeneous catalytic materials in the direction of synthesis of CNTs by CVD method and its functionalization”, International Conference on Nano Science and Technology (ICONSAT-2010), at Indian Institute of Technology-Bombay, Mumbai-400 076, India, February 17–20, 2010.
12. **Atchudan, R.**, Thangapandian, N., Pandurangan, A. and Subramanian, K. “Synthesis and characterization of MWNTs and Epoxy/MWNTs nanocomposites”, International Conference on Nanoscience and Nanotechnology (ICONN-2010), at Department of Physics, SRM University, Kattankulathur-603 203, India, February 24–26, 2010.
13. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Catalytic template for the growth of carbon nanotubes by CVD method and its functionalization”, International Conference on Advancement of Nanoscience and Nanotechnology (ICOANN-2010), at Department of Nanoscience and Technology, Alagappa University, Karaikudi-630 003, Tamilnadu, India, March 1–3, 2010.
14. Balamurugan, J., **Atchudan, R.**, Pandurangan, A. and Jayavel, R. “Efficient growth of well-aligned carbon nanotubes at the surface of

- transition metal incorporated SBA-15 by CCVD method and its applications”, International Conference on Advancement of Nanoscience and Nanotechnology (ICOANN-2010), at Department of Nanoscience and Technology, Alagappa University, Karaikudi-630 003, Tamilnadu, India, March 1–3, 2010.
15. Thangapandian, N., **Atchudan, R.**, Subramanian, K., Pandurangan, A. and Balasivanandha Prabu, S. “Synthesis and characterization of MWNTs to the preparation of epoxy nanocomposites and its mechanical properties”, International Conference on Synthesis, Characterization, Consolidation and Modelling of Nanomaterials (ICON-2010), at Department of Metallurgical Engineering, PSG College of Technology, Coimbatore-641 004, India, March 5–6, 2010.
  16. Balamurugan, J., **Atchudan, R.**, Pandurangan, A. and Jayavel, R. “Effective synthesis of well aligned carbon nanotubes using Ru/SBA-15 by chemical vapour deposition method”, International Conference on Synthesis, Characterization, Consolidation and Modelling of Nanomaterials (ICON-2010), at Department of Metallurgical Engineering, PSG College of Technology, Coimbatore-641 004, India, March 5–6, 2010.
  17. **Atchudan, R.**, Thangapandian, N., Balamurugan, J., Pandurangan, A. and Subramanian, K. “Synthesis and mechanical properties of MWNTs/Epoxy nanocomposites”, National Conference on Frontiers in Polymer Nanomaterials and Composites, at Department of Polymer Technology, B. S. Abdur Rahman University, Vandalur, Chennai-600 048, India, March 18–19, 2010.
  18. Balamurugan, J., **Atchudan, R.**, Pandurangan, A. and Jayavel, R. “Transition metal incorporated SBA-15 for effective synthesis of carbon nanotubes by CCVD method for Energy application”, International Conference on Emerging Technologies in Renewable Energy (ICETRE-2010), at Anna University, Chennai-600 025, August 18–21, 2010.
  19. **Atchudan, R.**, Balamurugan, J., Pandurangan, A. and Subramanian, K. “Zn loaded mesoporous cubic 3D Fe-KIT-6 catalytic activities on growth of CNTs and functionalization”, 20<sup>th</sup> National Symposium on Catalysis (NSC-2010), at NCCR, Indian Institute of Technology-Madras, Chennai-600 036, India, December 19–22, 2010.
  20. **Atchudan, R.**, Balamurugan, J., Pandurangan, A. and Subramanian, K. “Thermo-Mechanical behaviour and electrical conductivity of

MWNTs/Epoxy nanocomposites”, International Symposium for Research Scholars (ISRS-2010), at Metallurgy, Materials Science and Engineering, Indian Institute of Technology-Madras, Chennai-600 036, India, December 20–22, 2010.

21. Balamurugan, J., **Atchudan, R.**, Pandurangan, A. and Jayavel, R. “Synthesis and dye-sensitized solar cell applications of CNTs”, International Symposium for Research Scholars (ISRS-2010), at Metallurgy, Materials Science and Engineering, Indian Institute of Technology-Madras, Chennai-600 036, India, December 20–22, 2010.
22. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Synthesis and characterization of MWNTs using iron and molybdenum impregnated mesoporous 3D cubic KIT-6 by CVD method”, National Seminar on Chemistry of Nanomaterial and Molecular Dynamics (CNMD-2010), at Department of Chemistry, Annamalai University, Chidambaram-608 002, India, December 30–31, 2010.
23. **Atchudan, R.**, Pandurangan, A. and Subramanian, K. “Synthesis and characterization of MWNTs using tailored KIT-6 and thermo-mechanical properties of MWNTs/EPOXY nanocomposites”, National Conference on Material Chemistry (NCMC-2011), at Department of Chemistry, Gurunanak College, Chennai-600 042, India, February 9–11, 2011.

#### **ATTENDED CONFERENCES/SYMPOSIA/WORKSHOPS**

1. Annual Indian Institute of Technology-Madras Chemistry Symposium and the First Mid Year Meeting of the Chemical Research Society of India, organized by Department of Chemistry, Indian Institute of Technology-Madras, Chennai-600 036, India, July 12–13, 2006.
2. 8<sup>th</sup> Asian Academic Network for Environment Safety and Waste Management (AANESWM), organized by Department of Chemistry, Anna University, Chennai-600 025, India, December 10–13, 2006.
3. Awareness Program on Nanoscience and Technology, at Centre for Nanoscience and Technology, A. C. Tech. Campus, Anna University, Chennai-600 025, India, September 19–20, 2007.
4. Workshop on Nanostructured Materials, organized by Department of Nuclear Physics, University of Madras, Guindy Campus, Chennai-600 025, India, July 4–5, 2008.

5. Advances Level International Workshop on Nanoscience and Technology, organized by Department of Physics, Anna University, Chennai-600 025, India, February 23–27, 2009.
6. International Workshop on Advances in Nanoscience and Technology, organized by Anna University, Chennai-600 025, India and ICTP, Italy, October 28–30, 2009.
7. Workshop on Materials Science and Energy Storage, organized by Department of Physics, Anna University, Chennai-600 025, India, January 18–22, 2010.
8. Workshop on Nano-Materials and Devices for Energy Applications at International Conference on Nano Science and Technology-2010, organised by Indian Institute of Technology-Bombay, Mumbai-400 076, India, February 17, 2010.
9. Workshop on Polymer Technology Training Course (PTTC-2010), organized by Department of Chemistry, Anna University, Chennai-600 025, India, March 23–27, 2010.
10. National Level Conference on the Recent Trends in the Field of Nanoscience and Technology (NANOMEET-2010), organized by Centre for Nanoscience and Technology, A. C. Tech. Campus, Anna University, Chennai-600 025, India, March 25–26, 2010.
11. Indo-Italian Advanced Level Workshop on Semiconductor Nanostructures, Ultra Thin Films and Applications, organized by Anna University, Chennai-600 025 and Embassy of Italy, New Delhi, India, September 8–10, 2010.
12. International Workshop on Advanced Functional Nanomaterials, organized by Centre for Nanoscience and Technology, Crystal Growth Centre and Centre for International Affairs, Anna University, Chennai-600 025, India, February 21–24, 2011.
13. Association of Nanoscience and Nanotechnology Aspirants (ANNA) NANOMEET-2011, organized by Centre for Nanoscience and Technology, A. C. Tech. Campus, Anna University, Chennai-600 025, March 7–8, 2011.
14. One Day Workshop on Thrust Areas in Chemistry to Commemorate International Year of Chemistry-2011 (IYC-2011), organized by Department of Chemistry, Anna University, Chennai-600 025, India, 12<sup>th</sup> March, 2011.