

Dr. Rosilda Selvin Ph.D.

Adjunct Professor & Head of Sustainability Centre

Research Area: Nanomaterials Applications & Heterogeneous catalysis



Professor Rosilda Selvin's research group is housed in the Sustainability center at Don Bosco Institute of Technology, Kurla, Mumbai, India. The focus of our work is in demonstrating the Nanotechnology solutions for affordable drinking water sensing and purification system towards societal welfare. Our recent publications focus on the development of Nanomaterials for drinking water sensing & purification.

PERSONAL INFORMATION

Name :Dr. Rosilda Selvin

Designation: Adjunct Professor & Head of Sustainability Centre

Department: *Department of Basic Sciences and Humanities*

CONTACT INFORMATION

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Current Research:

Nanotechnology solutions for affordable drinking water sensing and purification system towards societal welfare

Currently, 663 million people around the world lack safe drinking water, out of this 76 million are Indians. Contamination of drinking water is one of the major environmental problems in today's world, since polluted water poses a threat to human health and hinders the sustainable development of both society and the economy. Hence there is an urgent need for the development of inexpensive and reliable techniques to measure the quality of drinking water and disinfection techniques as it would provide access to quality of safe drinking water. Several nanomaterials are used directly or indirectly to monitor and treat drinking water contaminants at affordable cost.

Research projects:

- **Development of sensors to monitor water quality**
 - Design and Development of Novel Sensors for Escherichia coli, fluorine and arsenic in drinking water
- **Sustainable and Cost Effective drinking water purification**
 - Nanoparticles Loaded Polymeric Membranes - Focuses on development of novel nanostructures for preparation of nanocomposite polymeric barriers to enhance the anti-fouling properties in drinking water purification and wastewater treatment applications
- **Rain water harvesting and purification**

EDUCATION

- ❖ Ph.D. (Chemistry), Anna University, Chennai, Tamil Nadu, India.
- ❖ M.Phil. (Chemistry), Anna University, Chennai, Tamil Nadu, India.
- ❖ M.Sc. (Industrial Chemistry), Alagappa University, Karaikudi, Tamil Nadu, India.
- ❖ B.Sc. (Chemistry), Holy Cross College, Nagercoil, Madurai Kamaraj University, Tamil Nadu, India.

WORK EXPERIENCE

- ✧ September 2016-current: **Adjunct Professor & Head of Sustainability Centre** : Don Bosco Institute of Technology, Kurla, Mumbai, India.
- ✧ September 2012-September 2015: **Associate Professor**: Department of Chemistry, King Abdulaziz University (Girls Campus), Jeddah, Kingdom of Saudi Arabia.
- ✧ August 2009– October 2011: **Associate Professor**: Department of Chemical and Materials Engineering, Lунghwa University of Science and Technology, Taiwan.
- ✧ August 2005- July 2009: **Assistant Professor**: Department of Chemical and Materials Engineering, Lунghwa University of Science and Technology, Taiwan.
- ✧ March 2003~July 2005: **Post-Doctoral Researcher**: Department of Chemical and Materials Engineering, National Central University, Taiwan.

COURSES TAUGHT

- ✧ Nanotechnology
- ✧ Photocatalysis
- ✧ Advanced Characterization of Nanomaterials
- ✧ Organic Chemistry
- ✧ Analytical Chemistry

- ✧ Fundamentals of Catalysis
- ✧ Introduction to Nanoscience and Nanotechnology
- ✧ Chemical Communication

RESEARCH PUBLICATIONS

A. PATENTS

1. A.S.T. Chiang, GordonShu, J.M. Liu, **RosildaSelvin**, “Method for making transparent zeolite film and structure of the zeolite film”, **US patent** 7,253,130 (2007).
2. A.S.T. Chiang, GordonShu, J.M. Liu, **RosildaSelvin**, “Method for making transparent zeolite film and structure of the zeolite film”, **Taiwan patent** I240648 (2005).

B. BOOK CHAPTERS

1. **RosildaSelvin**, L. SelvaRoselin, PrajithaKumari, Mohamed Bououdina "Recent Trends on Semiconductor Heterogeneous Nano Photocatalysis, Encyclopedia of Semiconductor Nanotechnology, American Scientific Publishers(in press)
2. **RosildaSelvin**and Ahmad Umar, Zeolite and Modified Zeolite Photocatalytic Materials for Environmental Remediation, Encyclopedia of Semiconductor Nanotechnology, American Scientific Publishers (in press).
3. S. Rashdan, L. SelvaRoselin, **RosildaSelvin**, Mohamed Bououdina, Chapter 1, ‘Nanoparticles for biomedical applications: current status, trends and future challenges’ Biomaterials and Medical Tribology: Research and Development (edited by J. Paolo Davim and published by Woodhead Publishing) page 1-132 (2013).
4. Suzan A. Khayyat, **RosildaSelvin**, L. SelvaRoselin "Recent progress in semiconductor photocatalysis for organic fine chemical synthesis". InTech - Applied Photosynthesis - New Progress. DOI: 10.5772/62220.

C. JOURNALS

1. Freda Carvalho, Jacinta George, Huda Mohammed Ahmed Sheikh, **RosildaSelvin**, Advances in Screening, Detection and Enumeration of Escherichia coli using Nanotechnology-based methods: A Review, Journal of Biomedical Nanotechnology (in press).
2. Radhika N. P., **RosildaSelvin**, Rita Kakkar and Hsiu-Ling Hsu, Nanocrystals of Zeolite ZSM-5 as catalysts for the Liquid Phase Benzoylation of Anisole with Benzyl Alcohol, Journal of Nanoscience and Nanotechnology, Volume 17, Number 2, February 2017, pp. 1329-1337(9).
3. Suzan A. Khayyat and **RosildaSelvin**, “ Efficient Isomerization of Citronellal to Isopulegol Using Nanocrystalline ZSM-5 Catalyst”, Science of Advanced Materials, Volume 9, Number 5, May 2016, pp. 765-770(6)
4. Radhika N. P., **RosildaSelvin**, Rita Kakkar and Ahmad Umar, Recent Advances in nano-photocatalysts for organic synthesis, Arabian Journal of Chemistry <http://dx.doi.org/10.1016/j.arabjc.2016.07.007>
5. Uhoud Abdullah A. Mohammad , Suzan A. Khayyat, **RosildaSelvin**, ‘Comparison of Micro- and

- Nanoscale Support for Friedel-Crafts Benzoylation of Anisole, *Science of Advanced Materials* Vol. 7, 2015, 2452-2458(7).
6. Aisha Al-Turkustani and **RosildaSelvin**, Enhanced Activity of Nanocrystalline Beta Zeolite for Acylation of Veratrole with Acetic Anhydride, *Journal of Nanoscience and Nanotechnology*, 2016 Apr;16(4):4247-51..
 7. Maha Saud M. Al-subaie, Aisha Al-Turkustani, **RosildaSelvin**, SaedahaMhyawi, 'Anti-corrosion Nanocrystalline Beta Zeolite Thin Film for Caron Steel in aqueous solution, *Journal of Chemistry*, Volume (2015), Article ID 693730, 5 pages (<http://www.hindawi.com/journals/jchem/aa/693730/>).
 8. **RosildaSelvin** and A.S.T. Chiang, Some observation on the synthesis of nanocrystalline ZSM-5, *Journal of Nanoscience and Nanotechnology* Vol. 14(9), 7351–7359, 2014.
 9. Suzan A. Khayyat, **RosildaSelvin**, L. SelvaRoselin, and Ahmad Umar, Photocatalytic Oxidation of Phenolic Pollutants and Hydrophobic Organic Compounds in Industrial Wastewater Using Modified Nanosize Titanium Silicate-1 Thin Film Technology, *Journal of Nanoscience and Nanotechnology* Vol. 14 (9), 7345–7350, 2014.
 10. **RosildaSelvin**, L. SelvaRoselin, Suzan A. Khayyat, and Ahmad Umar, Hierarchical Zeolite Beta: An Efficient and Eco-Friendly Nanocatalyst for the Friedel–Crafts Acylation of Toluene, *Journal of Nanoscience and Nanotechnology* Vol. 13 (6), 4415–4420, 2013.
 11. Hsiu-Ling Hsu, **RosildaSelvin** and L. SelvaRoselin, Preparation of Core-Shell Silica – 12 – Tungstophosphoricacid Nanoparticles for Acylation of Aromatics, *Advanced Materials Research* Vols. 706-708 (2013) pp 219-223.
 12. UttamMaity, **RosildaSelvin**, Jayanta Kumar Basu, and SonaliSengupta Application of Synthesized Nano-Crystalline Titanium Silicate-1 in the Oxidation of Thiophene in a Kinetic Approach *J. Nanoeng. Nanomanuf.* 2, 241- 247 (2012).
 13. L. SelvaRoselin, **RosildaSelvin**, P. Aneesh, MohamedBououdina, "Nanocrystalline ZSM-5: An Efficient Catalyst for RegioselectiveAcetolysis of Epichlorohydrin", *Chem. Eng. Comm.*, 199:221–230 (2012).
 14. L. SelvaRoselin, **RosildaSelvin**, P. Aneesh, Mohamed Bououdina Synthesis of Hierchical Porous Nanocrystalline Slicate-1 for the Beckmann Rearrangement of CyclohexanoneOxime, *Science of Advanced Materials*, Vol. 3 (5), 874-878, 2011.
 15. **Rosilda Selvin**, Hsiu-Ling Hsu, L. Selva Roselin, Synthesis of nanocrystalline TiO₂/Silicalite-1 thin film for the degradation of methyl orange", *International Journal of Nanomaterials and Technology*, vol.2, No.1, 2011, pp 17-18.
 16. Hsu, Hsiu-Ling; Roselin, L. Selva; **RosildaSelvin**; Maity, Uttam, "Efficient acylation of phenol with acetic anhydride using nanocrystalline hierarchical ZSM-5 catalyst", *Journal of Optoelectronics and Advanced Materials*, Volume: 13, Issue: 5-6, Pages: 675-678, Journal, 2011.
 17. L. SelvaRoselin, **RosildaSelvin**, P. Aneesh, MohamedBououdina, SrinivasKrishnaswamy, HIGHLY ACTIVE AND REUSABLE CATALYST for Fries rearrangement of phenyl acetate, *Kinetics and Catalysis*, 2011, Vol. 52, No. 6, pp. 823–827.
 18. Hsiu-Ling Hsu, **Rosilda Selvin**, Jia-wei Cao, L. SelvaRoselin, Mohamed Bououdina, Facile Synthesis of Magnetically Separable Nanozeolites for Bio-Applications" *Science of Advanced Materials* Vol. 3 (6), 939–941, 2011.
 19. **RosildaSelvin**, Hsiu-Ling Hsu, L. SelvaRoselin, Mohamed Bououdina "Effect of Ageing on the Precursor Sol for the Synthesis of Nanocrystalline ZSM-5", *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, 41:1028–1032, 2011.
 20. Hsiu-Ling Hsu, L. SelvaRoselin, **RosildaSelvin**, Mohamed Bououdina "Enhanced Activity of Hierarchical Zeolitic Material with ZSM-5 Structure for the Tert-Butylation of Phenol", *Journal of Experimental Nanoscience*, 6(6) 612-621, 2011.
 21. L. SelvaRoselin and **RosildaSelvin**, " Photocatalytic Degradation of Reactive Orange 16 Dye in a ZnO coated Thin Film Photoreactor" *Sci. Adv. Mater.* 3(2), 251-258 (2011).
 22. **RosildaSelvin** and L. SelvaRoselin "Highly active and selective solid acid catalysts for acetolysis of epichlorohydrin" *Science of Advanced Materials* ,Vol. 3(2), 210–215,(2011).

23. Ruey Chang Hsiao, L. SelvaRoselin, Hsiu-Ling Hsu, **RosildaSelvin**, Ruey Shin Juang, "Photocatalytic Degradation of Reactive Orange 16 Dye over Au-doped TiO₂ in Aqueous suspension", International Journal of Material Engineering Innovation, Volume 2 - Issue 1 - pp 96-108, (2011).
24. Aneesh. P., **RosildaSelvin**, G. Unnikrishnan, Hsiu-Ling Hsu, M. Bououdina "A facile method for the fabrication of hierarchical porous nanocrystalline zeolite silicalite-1", International Journal of Material Engineering Innovation Volume 2 - Issue 1 – pp 30-37, (2011).
25. L. SelvaRoselin and **RosildaSelvin**, "Photocatalytic treatment and reusability of textile dyeing effluents from cotton dyeing industries" Sci. Adv. Mater. 3, 113-119 (2011).
26. **RosildaSelvin**, L. SelvaRoselin and UttamMaity, "Novel catalyst for environmentally friendly synthesis of acetoveratrone" Journal of Optoelectronics and Advanced Materials-Rapid Communications, vol. 4 issue 12 pp 2011-2012, (2010).
27. Kishore Kumar, Hsiu-Ling Hsu, **RosildaSelvin**, "A Facile Method for the Synthesis of Magnetite Nanocrystals" Journal of Optoelectronics and Advanced Materials-Rapid Communications (vol. 4 issue 10/2010 pp. 1628-1630).
28. K. Praveen Kumar, **RosildaSelvin**, PrajithaKumari, L. SelvaRoselin, N. Sabari Arul, M. Bououdina "Selective decomposition of cumenehydroperoxide into phenol and acetone over nanocrystalline ZSM-5", International Journal of Material Engineering Innovation, 1, 417-425 (2010).
29. Hsiu-Ling Hsu and **RosildaSelvin**, "Alkylation of Phenol with Tert-butanol Using Supported heteropoly Acid Catalysts", Journal of Materials Science and Engineering , Volume 4, No.11, 64-68, (2010).
30. Aneesh. P., **RosildaSelvin**, Hsiu-Ling Hsu Li-Wei Xiao . "Efficient Acylation of Anisole over Heirarchicalporous ZSM-5 Structure", Chemical Engineering and Technology 33, 998-1002 (2010).
31. Prita Pant Sarangi, Sampat Raj Vadera, Manoj Kumar Patra, Chandra Prakash, **RosildaSelvin** and NarendraNathGhosh, "Development of a Novel Aqueous Solution Based Chemical Methodology For Synthesis of Ni(1-x)ZnxFe₂O₄Nanopowders and Their Electrical and Magnetic property" Integrated Ferroelectrics 1607-8489, Volume 116, Issue 1, Pages 1 – 15. (2010).
32. **RosildaSelvin**, Hsiu-Ling Hsu, Aneesh.P., Chen Sha-Hua, Li Liang Hung, "Preparation of Acid-Modified Bentonite for Selective Decomposition of CumeneHydroperoxide into Phenol and Acetone ", Reaction Kinetics, Mechanisms and Catalysis, 100, 197-204 (2010).
33. **RosildaSelvin**, Hsiu-Ling Hsu, N. Sabari Arul, Suresh Mathew ""Photocatalytic degradation of methyl orange over ZnO catalysts: Comparison of its activity with nanoZnO, nano TiO₂ and nano TS 1 catalysts " Science of Advanced Materials, 58-63 (2010).
34. **RosildaSelvin**, L. SelvaRoselin, K. Praveen Kumar an N. Sabari Arul, "Nanocrystalline Zeolite Beta: An efficient catalyst for the regioselectivealcoholysisofepichlorohydrin" Science of Advanced Materials, 2, 190-194 (2010).
35. Hsiu-Ling Hsu, **RosildaSelvin**, L. SelvaRoselin, PrajithaKumari, Jia-Wei Cao. "Photocatalytic Efficiency of Nanocrystalline Zeolite TS-1 for the Degradation of Methyl Orange", Reaction Kinetics and Catalysis Letters 2009, Vol. 98, 265-272.
36. **RosildaSelvin**, Hsiu-Ling Hsu, Tze-Min Her., "Kinetics of RegioselectiveAcetolysis of Epichlorohydrin", Reaction Kinetics and Catalysis Letters, 96 (2009) 75-82.
37. **RosildaSelvin**, Hsiu-Ling Hsu, Tze-Min Her., "Acylation of anisole with acetic anhydride using ZSM-5 catalysts:Effect of ZSM-5 particle size in the nanoscale range" Catal. Commun. 10 (2008) 169-172.
38. Hsiu-Ling Hsu. **RosildaSelvin**, Tze- min Her, "Highly Active and Reusable Heterogeneous Catalysts for Acylation of Anisole" J. Therm. Anal. Cal. 89 (2007) 379-383.
39. Cheng-Ye Hsu, Anthony S.T. Chiang, **RosildaSelvin**, Robert W. Thompson, Rapid synthesis of MFI zeolite nanocrystals, J. Phys. Chem. B 109 (2005), 18804-18814.
40. **RosildaSelvin**, S. P. Lai., J. P. Yang, Z. W. Don and A.S.T. Chiang., "A qualitative study on the surface modification of boehmitenanocrystals" J. Chinese colloid and interface society, 25 (2003) 53-58.

41. L. SelvaRoselin, G. R. Rajarajeswari, **RosildaSelvin**, V. Sadasivam, B.Sivasankar and K.Rengaraj, "Photocatalytic oxidation of AV 19: Mechanistic aspects involving primary oxidizing species" *Reaction Kinetics and Catalysis Letters*, Volume 78, Number 2, 2003, Pages: 259 – 265.
42. L. SelvaRoselin, G. R. Rajarajeswari, **RosildaSelvin**, V. Sadasivam, B.Sivasankar and K.Rengaraj, "Sunlight/ZnO mediated photocatalytic degradation of Reactive red 22 using thin film flatbed flow photoreactor" *Solar Energy*, Volume 73, Issue 4, 2002, Pages 281-285.
43. **RosildaSelvin**, G. R. Rajarajeswari, L. SelvaRoselin, V. Sadasivam, B. Sivasankar and K. Rengaraj. "Solid acid catalysed decomposition of Cumenehydroperoxide into phenol and acetone", *Appl. Catal., A General*, 2001, Vol.219/1-2,125-129.
44. **RosildaSelvin**, B.Sivasankar and K.Rengaraj, "Kinetic studies on Friedel-Crafts acylation of anisole by clayzic", *Reaction Kinetics and Catalysis Letters*, 1999, Vol. 67, 319-324.
45. L. GnanaSahaya**Rosilda**, M. Ganesan, M. AnbuKulandainathan and V. Kapali, "Influence of inhibitors on corrosion and anodic behaviour of different grades of aluminium in alkaline media" *Journal of Power Sources*, 50 (1994) 321-32.

D. REFEREED CONFERENCE PUBLICATIONS

- [1] Maha Saud M. **RosildaSelvin**, Al-subaie, Aisha Al-Turkustani, Corrosion resistant zeolite ZSM-5 nanoparticle coatings for carbon steels, Fourth International Conference on Hybrid Materials, Sitges, Spain, 9-13 March 2015.
- [2] Maha Saud M. **RosildaSelvin**, Al-subaie, Aisha Al-Turkustani, SaedahaMhyawi, Extraction and structural characterization of pure Beta zeolite nanophase and its conversion into zeolite, 12th chemistry conference for young scientists, Blankenberge, Belgium, 27-28 February 2014.
- [3] Suzan A. Khayyat, **RosildaSelvin**, L. SelvaRoselin, "Regioselective ring opening of epichlorohydrin catalyzed by Core-Shell Silica – 12 – Tungstophosphoricacid Nanoparticles" *NanotechItaly2013*, November 27-29, Venice, Italy.
- [4] Hsiu-Ling Hsu, Huang Yi Ju, PrajithaKumari, L. SelvaRoselin, **RosildaSelvin**, Synthesis of Hierarchical porous structures in zeolites using Rubber latex as Macromolecular Templates, ICCCE 201229-30, June 2012, Jeju Island, South Korea, International Conference on Chemistry and Chemical Engineering – ICCCE 2012.
- [5] Hsiu-Ling Hsu, Liao, Wei-Hsiang, **Rosilda Selvin**, L. Selva Roselin," Rapid Synthesis of Magnetite/Nanozeolite Composite for Bio-Applications," *International Symposia on Advancing the Chemical Sciences - Challenges in Chemical Biology (ISACS5)*, July 26-29 2011,Manchester,UK.[0077].
- [6] Aneesh P.**RosildaSelvin**, G. Unnikrishnan"Fabrication of Hierarchical Porous ZSM-5 Structure with NR Latex Macrotemplate" *FUNCTIONAL POLYMERS*, An International Conference,held at National Institute of Technology, Calicut, India during 28th-30th January 2011.
- [7] **RosildaSelvin**, Hsiu-Ling Hsu and L. SelvaRoselin,"A Novel Method for the Preparation of Core-Shell Silica - 12-Tungstophosphoricacid Nanoparticles for t-Butylation of phenol"2011 International Conference on Environmental Science and Development – ICESD 2011,Mumbai, India , Jan. 7-9, 2011.
- [8] **RosildaSelvin**, Hsiu-Ling Hsu, L. SelvaRoselin, Ruey Chang Hsiao,"Synthesis of Nanocrystalline TiO₂/Silicalite-1 thin film for the Degradation of Methyl Orange" *INDO-ITALIAN workshop on semiconductor nanostructures, ultrathin films and applications* held during 8-10 September, 2010 at Anna Univeristy, Chennai, India.
- [9] De-Yu Chen, Hsiu-Ling Hsu, Wan-Ting Liao and **RosildaSelvin**,"Alkylation of Benzene with 1-Dodecene Using hierarchical zeolite with ZSM-5 Structure" *The 13th Asia Pacific Confederation of APCCHE 2010 Chemical Engineering Congress* held in Taipei during October 5-8, 2010.
- [10] Hsui-Ling Hsu, Li-We Xiao, De-Yu Chen, Chen Ching-Feng**RosildaSelvin**, "Friedel-Crafts Acylation of Anisole Catalysedny Hierarchical Porous ZSM-5 Catalyst" *The 13th Asia Pacific*

Confederation of APCCChE 2010, Chemical Engineering Congress held in Taipei during October 5-8, 2010.

- [11] Hsiu-Ling Hsu and **RosildaSelvin**, "Nanocrystalline ZSM-5: An Efficient Catalyst for the Regioselective Alcoholysis of Epichlorohydrin" The X International Conference on "Nanostructured Materials" (Nano 2010) held in Rome, Italy during September 14-17, 2010.
- [12] Tze -Min Her, Hsiu-Ling Hsu, **RosildaSelvin**, "Friedel-Crafts Acylation of Toluene with Acetic Anhydride over Hierarchical Porous Zeolite Beta", Asia Pacific Conference on Ionic Liquids and Green Processes held in Dalian, China during September 7-10.
- [13] Hsiu-Ling Hsu, Yu Chen-Kuo, **RosildaSelvin**, "Selective decomposition of cumene hydroperoxide into phenol and Acetone by Core-Shell Silica 12-Tungstophosphoric acid Nanoparticles" Asia Pacific Conference on Ionic Liquids and Green Processes held in Dalian, China during September 7-10.
- [14] Hsiu-Ling Hsu, Yu Chen-Kuo, **RosildaSelvin**, "Highly active and selective nanocrystalline Beta Catalysts for the tert-butylation of cresols" Asia Pacific Conference on Ionic Liquids and Green Processes held in Dalian, China during September 7-10.
- [15] Hsiu-Ling Hsu, Chen Ching-Feng, Li-Wei Xiao, De-Yu Chen, and **RosildaSelvin**, "Eco-Friendly Synthesis of p-Cresylphenylacetate from p-Cresol and Phenylacetic Acid Using 12-Tungstophosphoric acid Supported on Silica Nanoparticle", In ICOMC 2010, 24th International Conference on Organometallic Chemistry Taipei during July 18 to 23, 2010.
- [16] De-Yu Chen, Hsiu-Ling Hsu, Liao Wan-Ting, **RosildaSelvin**, "A novel method for the preparation of 12-Tungstophosphoric acid included silica nanoparticles for acylation of anisole", 24th International Conference on Organometallic Chemistry Taipei during July 18 to 23, 2010.
- [17] De-Yu Chen, Hsiu-Ling Hsu, Li-Wei Xiao, **RosildaSelvin**, "Fabrication of hierarchical porous nanocrystalline TS-1 for the Beckmann rearrangement of cyclohexanone oxime" International Conference for Young Chemists Innovations and Advancements in Chemistry (3rd ICYC 2010) held in Penang, Malaysia.
- [18] Chen Ching-Feng, Hsiu-Ling Hsu, Liao Wan-Ting, **RosildaSelvin**, "Highly Active and Re-usable Catalyst for Fries Rearrangement of Phenyl Acetate", International Conference for Young Chemists Innovations and Advancements in Chemistry (3rd ICYC 2010) held in Penang, Malaysia.
- [19] **RosildaSelvin**, Hsiu-Ling Hsu, De-Yu Chen, Li-Wei Xiao, "Tert-Butylation of Phenol Using Hierarchical Zeolitic Material with ZSM-5 Structure", International Conference for Young Chemists Innovations and Advancements in Chemistry (3rd ICYC 2010) held in Penang, Malaysia.
- [20] Hsiu-Ling Hsu, De-Yu Chen, Liao Wan-Ting, **RosildaSelvin**, "Friedel Crafts Alkylation of Phenol with Tert-butanol Using Supported Heteropoly Acid Catalysts", International Conference for Young Chemists Innovations and Advancements in Chemistry (3rd ICYC 2010) held in Penang, Malaysia.
- [21] A.S. Singha, **RosildaSelvin**, Hsiu-Ling Hsu and Vijay Kumar Thakur, "Hierarchical Structured Nanozeolite Beta as Novel Catalyst for Petroleum Industry", 7th International Symposium on Fuel and Lubricants held at New Delhi, India during March 9-12, 2010.
- [22] **RosildaSelvin**, Hsiu-Ling Hsu, Aneesh. P., Vijay Kumar Thakur "Steam-Treated 12-Tungstophosphoric acid included on Silica Nanoparticle: An Efficient Catalyst for Fries Rearrangement of Phenylacetate" International Conference on Nanoscience and Nanotechnology (ICONN 2010), held at Chennai, India during Feb-24-26, 2010.
- [23] **RosildaSelvin**, Hsiu-Ling Hsu, Prajitha Kumari, Wan-Ting Liao and Tze- Min Her "Fabrication of Hierarchical Zeolitic Material with ZSM-5 Structure for the tert-butylation of phenol" The Fourth Asian Particle Technology Symposium (APT 2009), held at New Delhi, India during Sep-14-16.
- [24] **RosildaSelvin**, Chen Sha-Hua, Li Liang Hung "Preparation of Acid-modified bentonite in the production of phenol and acetone" The Fourth Asian Particle Technology Symposium (APT 2009), held at New Delhi, India during Sep-14-16.
- [25] Hsiu-Ling Hsu, **RosildaSelvin**, Tze- Min Her, Jia-Wei Cao and Li-Wei Xiao "Synthesis of Aluminosilicate Nanoparticle for Acylation of Phenol with acetic anhydride" The Fourth Asian Particle Technology Symposium (APT 2009), held at New Delhi, India during Sep-14-16.

- [26] Tze- Min Her, **RosildaSelvin**, Hsiu-Ling Hsu, Wei-Jhu You, "Preparation of 12-Tungstophosphoricacid Supported on Silica Nanoparticle for Fries rearrangement of phenyl acetate" The Fourth Asian Particle Technology Symposium (APT 2009), held at New Delhi, India during Sep-14-16.
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- [28] **RosildaSelvin**, Hsiu-Ling Hsu, AneeshPadmanabhan, Jia-Wei Cao, Tze-Min Her "Fabrication of Hierarchical porous structures by using zeolite nanocrystals with Styrene Butadiene Rubber (SBR) and Natural Rubber (NR) latex as Macromolecular Templates" NATAS 2009, held at Lubbock, Texas.
- [29] Hsiu-Ling Hsu, **RosildaSelvin**, Tze-Min Her "Enhanced Activity of 12-Tungstophosphoricacid Supported on Silica Nanoparticle for Alkylation of Aniline with tert-butanol" NATAS 2009, held at Lubbock, Texas.
- [30] Praveen Kumar K, Thomas Mathew, Sebeelamol J.N, Hsiu-Ling Hsu, **RosildaSelvin**, Pao-Chi Chen, Suresh Mathew "D-Glucosamine Stabilized Au and Ag Nanoparticles for Metal Sensing Studies" Nanotech India 2009, held at Cochin, India during Aug 14-16. September 20-23, 2009.
- [31] **RosildaSelvin**, Hsiu-Ling Hsu, Tze- Min Her, Wan-Ting Liao and Lei-Wei Xiao "Steam-treated 12-Tungstophosphoricacid Supported on Silica Nanoparticle: An efficient and selective catalyst for Ecofriendly Claisen Rearrangement of Allyl-4-tert-butylphenyl Ether", Nanotech India 2009, held at Cochin, India during Aug 14-16. September 20-23, 2009.
- [32] **RosildaSelvin**, Hsiu-Ling Hsu, Tze-Min Her., Wan-Ting Liao and Lei-Wei Xiao "Steam-treated 12-Tungstophosphoricacid Supported on Silica Nanoparticle: An efficient and selective catalyst for Ecofriendly Claisen Rearrangement of Allyl-4-tert-butylphenyl Ether", An International Conference on Nanotechnology will be held at Cochin, India, during Aug 14 -16, 2009.
- [33] Tze- Min Her, PrajithaKumari, **RosildaSelvin**, Pao-Chi Chen and Hsiu-Ling Hsu "Fabrication of Hierarchical Porous Materials with ZSM-5 Structures Using Natural Rubber Template" International Symposium on Zeolites and Microporous Crystals (ZMPC 2009) will be held at Waseda University, Tokyo, Japan during Aug 3 -7th, 2009.
- [34] Hsiu-Ling Hsu, **RosildaSelvin**, Tze- Min Her, Li-Wei Xiao and Wan-Ting Liao, "Novelties of Aluminosilicate Nanoparticle Catalysed Synthesis of Acetoveratrone" International Symposium on Zeolites and Microporous Crystals (ZMPC 2009) held at Waseda University, Tokyo, Japan during Aug 3 -7th, 2009.
- [35] **RosildaSelvin**, PrajithaKumari, Hsiu-Ling Hsu, Jia-Wei Cao, Tze- Min Her, G. Unnikrishnan "Enhanced Activity of Nanocrystalline ZSM-5 for Selective decomposition of cumenehydroperoxide into phenol and Acetone" First International Conference on Nanostructured Materials and Nanocomposites (ICNM 2009) held at Kottayam, Kerala, India during April 6-8, 2009.
- [36] **RosildaSelvin**, AneeshPadmanabhan, Tze- Min Her, Wei-Jhu You, Hsiu-Ling Hsu, G. Unnikrishnan "Regioselective ring opening of epichlorohydrincatalyzed by Nanocrystalline Beta Zeolite" First International Conference on Nanostructured Materials and Nanocomposites (ICNM 2009) will be held at Kottayam, Kerala, India during April 6-8, 2009.
- [37] Aneesh .P, Jia-Wei Cao, Hsiu-Ling Hsu, **RosildaSelvin**, Tze- Min Her, Wei-Jhu You, "Fabrication of Hierarchical porous structures by using zeolite nanocrystals and Macromolecular Template" International Conference on Polymers (POLYMCON '09) held at NITC, India during 9-11th Jan. 2009.
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