

# **BIO-DATA**

1.	Name	: Dr. K. MUTHU
2.	Present Position & Official address	: Assistant Professor
		Department of Chemistry
		Manonmaniam Sundaranar University
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		karu.muthu@msuniv.ac.in
3.	Name of the Father/Husband	: M. Karuppiah
4.	Date of Birth	: 08.04.1977
5.	Nationality	: Indian

6. General Educational Qualification :

Degree	Branch	Institution/University	Month & Year
Ph.D.,	Chemistry	University of Madras	December 2009
M.Sc.,	Chemistry	Madurai Kamaraj	November 2001
		University	
B.Sc.,	Chemistry	Madurai Kamaraj	April 1998
		University	
HSC/+2	Phy, Che, Bot, Zoo	TN State Board	March 1995
SSLC		TN State Board	April 1993

7. Nature of the Occupation

: Teaching to M. Sc., M. Phil Students and Research supervision for M. Phil Students

8. Research area

- : i) Natural Product Chemistry
- ii) Synthetic Organic Chemistry
- iii) Green Chemistry
- iv) Biosynthesis of Metal Nanoparticles
- v) Antioxidant activity
- vi) Catalysis
- 9. Professional Experience:

Institution	Post Held	Duration of	Job description: UG&PG
		service	Teaching/Research/
			Extension etc.
Manonmaniam	Assistant	13.10.2010	PG & M.Phil., level teaching
Sundaranar University,	Professor in	to till date	for Organic Chemistry, PG,
Tirunelveli -12	Chemistry		M.Phil and Ph.D level
			Research supervision
Sri Ramanujar Engg.	Assistant	22.03.2010	UG level teaching for Basic
College, Kolappakkam,	Professor in	to	Engineering Chemistry
Chennai – 48.	Chemistry	10.10.2010	

10. Supervision of candidates for Research :

	Completed	ongoing
M.Sc	23	-
M.Phil	10	-
Ph.D	-	4

#### List of Publications (International/National/Proceeding) Journals

- 31. Ramalingam Sundaram, **Karuppiah Muthu**, Palanivelu Shanthi Panchanatham Sachdanandam, "Antioxidant and antihyperlipidemic activities of catechol derivatives and biflavonoid isolated from *Semecarpus anacardium* seeds" toxicology mechanism and methods (Accept) 2021 (**Impact factor : 2.295**)
- 30 B. Akilandaeaswari, Karuppiah Muthu, "One-pot Green Synthesis of Au-Ag Bimetallic Nanoparticles from *Lawsonia inermis* seed extract and its catalytic reduction of environmental polluted methyl orange and 4-ntrophenol" Journal of the Taiwan Institute of Chemical Engineers 00 (2021) 1-10 (https://doi.org/10.1016/j.jtice.2021.07.019) (Impact Factor 5.876)
- S. Mangala Nagasundari, K.Muthu, K.Kaviyarasu, Dunia A. AlFarraj, Roua M.Alkufeidy "Current trends of Silver doped Zinc oxide nanowires photocatalytic degradation for energy and environmental application" Surfaces and Interfaces (2021), 23, 100931 (DOI: org/10.1016/j.surfin.2021.100931) (Impact factor 4.837)
- 28. B. Akilandaeaswari & K.Muthu "Green method for synthesis and characterization of gold nanoparticles using *Lawsonia inermis* seed extract and their photocatalytic activity" Materials letters 2020 (Impact factor 3.423) [https://doi.org/10.1016/j.matlet.2020.128344]
- K. Muthu, S. Rini, S. Mangala Nagasundari & B. Akilandaeaswari "Photocatalytic reduction and antioxidant potential of green synthesized silver nanoparticles from *Catharanthus roseus* flower extract" Inorganic and Nano-Metal Chemistry 2020 (Impact factor 1.639) [https://doi.org/10.1080/24701556.2020.1799404].
- K. Muthu, S. Rajeswari, B. Akilandaeaswari, S.M. Nagasundari & R. Rangasamy "Synthesis, characterisation and photocatalytic activity of silver nanoparticles stabilised by *Punica granatum* seeds extract" Materials Technology 2020, (Impact factor 1.738) [https://doi.org/10.1080/10667857.2020.1786786].
- R. Sundaram, P. Meenatchi, K. Muthu, V. Ganesh, G. Rahul, G. Kirubananthan, T. Muthusamy "Effect of β-sitosterol on glucose homeostasis by sensitization of insulin

resistance via enhanced protein expression of PPRc and glucose transporter 4 in high fat diet and streptozotocin-induced diabetic rats" Cytotechnology (2020) 72, 357–366. (**Impact factor 1.891**) [https://doi.org/10.1007/s10616-020-00382-y].

- 24 Sundaram Ramalingam, Muthu Karuppiah, Muthusamy Thiruppathi, Shanthi Palanivelu & Sachdanandam Panchanatham "Antioxidant potential of biflavonoid attenuates hyperglycemia by modulating the carbohydrate metabolic enzymes in high fat diet/streptozotocin induced diabetic rats" Redox Report 2020, 25(1), 1–10. (Impact factor 1.963) [https://doi.org/10.1080/13510002.2020.1722914].
- Sundaram Ramalingam, Muthu Karuppiah, Muthusamy Thiruppathi "Antihyperglycaemic potential of rosmarinic acid attenuates glycoprotein moiety in highfat diet and streptozotocin-induced diabetic rats" Frontiers in Life Science 2020, 13(1), 120–130 (Impact factor 1.622) [https://doi.org/10.1080/26895293.2020.1733104].
- 22 Karuppiah Muthu, B. Akilandaeaswari, S. Mangala Nagasundari "Green Synthesis of Silver Nanoparticles using *Polyalthia longifolia* stem bark extract and their Catalytic Reduction of 4-Nitrophenol" Asian Journal of Chemistry 319(11) (2019), 2439-2442. [https://doi.org/10.14233/ajchem.2019.22071].
- 21 Sundaram Ramalingam, Muthu Karuppiah, V. Vishnu Priya, Shanthi Palanivelu, Sachdanandam Panchanatham, "Isolation and characterization of catechol derivatives from *Semecarpus anacardium* nuts" International Journal of Green Pharmacy 13(3) (2019) 289-298. [http://dx.doi.org/10.22377/ijgp.v13i3.2610].
- 20 V. Karthik, V. Vishnu Priya, R. Gayathri, K. Muthu, R. Sundaram "Evaluation of *in vitro* rheumatoid arthritis activity of catechol derivatives isolated from *Semecarpus anacardium* seeds" Drug Invention Today 12(7) (2019) 1399-1401. (Impact factor 0.200) [ISSN: 0975-7619].
- Sundaram Ramalingam, Muthu Karuppiah, Sivakumar Mullaivanam Ramasamy, Ganesh Vasu, Rahul Gopalakrishnan, Shanthi Sivakumar, V. Vishnupriya "Preliminary phytochemical screening of Semecarpus anacardium nut milk extract – A Siddha drug" Drug Invention Today 12(4) (2019) 642-645. (Impact factor 0.200) [ISSN: 0975-7619].

- B. Amrithaa, V. Vishnu Priya, R. Gayathri, G. Dhanasekaran, K. Muthu, R. Sundaram "Antiproliferative effect of β-sitosterol on human lung adenocarcinoma cell line A549 – *In vitro*" Drug Invention Today 11(8) (2019) 1818-1822. (Impact factor 0.200) [ISSN: 0975-7619].
- R. Sharmila, V. Vishnu Priya, R. Gayathri, G. Dhanasekaran, K. Muthu, R. Sundaram "Antioxidant potential of β-sitosterol on human lung adenocarcinoma cell line A549 – *In vitro*" Drug Invention Today 11(8) (2019) 1799-1802. (Impact factor 0.200) [ISSN: 0975-7619].
- G.L. Gohul, V. Vishnupriya, R. Gayathri, G. Dhanasekaran, K. Muthu, R. Sundaram "Anti-inflammatory activity of catechol derivatives on buccal tumor cell line TR146 *in vitro*" Drug Invention Today 11(7) (2019) 1538-1540. (Impact factor 0.200) [ISSN: 0975-7619].
- Sundaram Ramalingam, Muthu Karuppiah, Sivakumar Mullaivanam Ramasamy, Ganesh Vasu, Rahul Gopalakrishnan, Shanthi Sivakumar, V. Vishnupriya "In vitro antioxidant potential of acyclic isoprenoid isolated from Semecarpus anacardium" Drug Invention Today 11(4) (2019) 928-932. (Impact factor 0.200) [ISSN: 0975-7619].
- Ramalingam Sundaram, Purusothaman Ayyakkannu, Karuppiah Muthu, Sohara parveen Nazar, Shanthi Palanivelu, Sachdanandam Panchanatham "Acyclic Isoprenoid Attenuates Lipid Anomalies and Inflammatory Changes in Hypercholesterolemic Rats" Ind J Clin Biochem (Oct-Dec 2019) 34(4):395–406. [https://doi.org/10.1007/s12291-018-0764-8].
- I. Merlin, C.Vedhi, K. Muthu, A. Syed Mohamed "Influence of pH and Temperature on The Structure and Size of Tin Oxide Nanoparticles" Journal of Nanoscience and Technology 4(5) (2018) 564-566. [https://doi.org/10.30799/jnst.182.18040527].
- Ramalingam Sundaram, Muthu Karuppaiah, Palanivelu Shanthi, Panchanatham Sachdanandam "Acute and sub-acute studies of catechol derivatives from *Semecarpus anacardium*" Toxicology Reports 5 (2018) 231–239. [https://doi.org/10.1016/j.toxrep.2018.01.004].

- Ayyakkannu Purushothaman, Packirisamy Meenatchi, Nallappan Saravanan, Muthu Karuppaiah, Ramalingam Sundaram "Isolation and Characterization of an Acyclic Isoprenoid from *Semecarpus anacardium* Linn. and its Antibacterial Potential in vitro" Journal of Pharmacopuncture 20(2) (2017) 119-126. [https://doi.org/10.3831/KPI.2017.20.016].
- Karuppiah Muthu and Sethuraman Priya "Green synthesis, characterization and catalytic activity of silver nanoparticles using *Cassia auriculata* flower extract separated fraction" Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 179 (2017) 66–72 (Impact Factor 3.232). Cited by 53 [https://doi.org/10.1016/j.saa.2017.02.024].
- Karuppiah Muthu. "Antioxidant activity of Biosynthesized Silver Nanoparticles: A Green Chemistry Study" International Journal of Pharmacy and Pharmaceutical Research (Ijppr.Human), 2016. 7(1), 597-605 (ISSN: 2349-7203). (Impact Factor – PIF 5.016).
- K. Muthu, C. Rathika "*Casuarina equisetifolia* leaf extract mediated biosynthesis of Silver Nanoparticles" Journal of Nanoscience and Technology 2(3) (2016) 166–168 (ISSN: 2455-0191).
- Karuppiah Muthu and S. Sangeetha, "Isolation and Preliminary Phytochemical Analyses of *Momordica charantia L.*, Seed Extract" *International Journal of Applied and Pure Science and Agriculture (IJAPSA* Volume 02, Issue 04, April - 2016 pp 240-242 [e-ISSN: 2394-5532, p-ISSN: 2394-823X] (Scientific Journal Impact Factor: 3.762).
- Kamaraj Banupriya and Karuppiah Muthu, "Green synthesis of Silver Nanoparticles using Datura metel leaves extract" International Journal of Applied and Pure Science and Agriculture (IJAPSA) Volume 02, Issue 2, February – 2016 pp 215-219 [e-ISSN: 2394-5532, p-ISSN: 2394-823X] (Scientific Journal Impact Factor: 3.762).
- Paramanantham, M., Murugesan, A., Muthu, M.K and Ramamoorthy, R "Green Synthesis of Silver Nanoparticles from *Holarrhena antidysentrica*: Synthesis and Antimicrobial Activity" *International Journal of Recent Scientific Research, Vol. 5, Issue, 3, pp.677-680, March, 2014.* [ISSN: 0976-3031].
- 4. Paramanantham, M., Murugesan, A., **Muthu, M.K** and Ramamoorthy, R "Green Synthesis of Silver Nanoparticles from *Helictres isora* Synthesis and Antimicrobial

Activity" International Journal of Recent Scientific Research, Vol. 5, Issue, 3, pp.673-676, March, 2014. [ISSN: 0976-3031].

- Ramalingam Sundaram, Karuppiah Muthu, Subramani Nagaraj, Palanivelu Shanthi, Panchanatham Sachdanandam "Isolation and characterization of catechol derivatives from *Semecarpus anacardium* seeds and their antibacterial potential in *In- vitro*" Biomedicine & Preventive Nutrition 4(2), 2014, 177-180. [http://dx.doi.org/10.1016/j.bionut.2013.12.001].
- K. Muthu, M. Hema, S. Nagaraj, R. Rengasamy "*In-vitro* antibacterial potential, Phytochemical characterization of *Cyperus rotundus* flower extract" International Journal of Natural Products Research 2014; 4(1): 6-8. [ISSN: 2249-0353]
- Muthu Karuppiah, Rangasamy Rajmohan "Green synthesis of silver nanoparticles using Ixora coccinea leaves extract" Materials Letters 97 (2013) 141–143. (Impact factor 3.204). [http://dx.doi.org/10.1016/j.matlet.2013.01.087]

#### List of Books & Book chapter

- S Mangalanagasundari, K Paulkumar, T Jesi Reeta, S Emmanuel Joshua Jebasingh, K. Muthu, K Murugan "Chapter 16 - Chitosan-based nanosystems: Exploitation in the agrifood sector" Micro and Nano Technologies (2020), Pages 355-391 [https://doi.org/10.1016/B978-0-12-821354-4.00016-9]
- K.Paulkumar, T.Jesi Reeta, S.Immanuel Joshua Jebasingh, S Mangalanagasundari, K. Muthu, K Murugan "Chapter 19 - Potential utilization of zinc nanoparticles for wastewater treatment" Aquananotechnology Applications of Nanomaterials for Water Purification Micro and Nano Technologies 2021 Page 421-454 [https://doi.org/10.1016/B978-0-12-821141-0.00026-4]
- K.Paulkumar, S.Mangalanagasundari, T.Jesi Reeta, S.Emmanuel Joshua Jebasingh, K.Muthu, K.Murugan, Kamel A.Abd-Elsalam "Chapter 12 - Zinc nanomaterial applications in agroecosystems" Zinc-Based Nanostructures for Environmental and Agricultural Applications Nanobiotechnology for Plant Protection 2021, Pages 223-241 [https://doi.org/10.1016/B978-0-12-822836-4.00011-2].

#### List of Publications in Proceeding

- Subramani Seethai and Karuppiah Muthu, "Green Synthesis of Gold Nanoparticles from *Lawsonia inermis* seeds extract" Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi March 2016, pp 43 (ISBN : 978-81-928690-7-0).
- 5. B. Akilanda Easwari and **Karuppiah Muthu**, "Primary Phytochemical analysis and Antioxidant activity of *Millingtonia hortensis* Linn., stem bark extracts" Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi March 2016, pp 171 (ISBN : 978-81-928690-7-0).
- 4. Karuppiah Muthu "Biosynthesis of Silver Nanoparticles using *Celastrus paniculatus* Flower Extract" International Conference on Recent Advances in Materials and Chemical Sciences (ICRAMCS-2015) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University Dindigul dated on 14 & 15, December 2015. pp 200-201 (ISBN : 978-93-85477-46-1).
- Karuppiah Muthu, Rajmohan Rangasamy "Antioxidant Potential of Green Synthesized Silver Nanoparticles using *Ixora coccinea* leaves extract" International Conference on Advances in New materials [ICAN 2014]. Organized by Department of Inorganic Chemistry, University of Madras. Dated on 20<sup>th</sup> & 21<sup>st</sup> June 2014. pp 61 (ISBN: 978-81-89843-57-1)
- K. Muthu, N. Ramya, M. Hema, T. Vahitha Banu, S. Nagaraj & R. Rengasamy. "Phytochemical and antimicrobial investigations of some Indian Medicinal plants". Proceeding of the National Conferences on Popularisation of Chemical Sciences 2012, 68-71 (ISBN : 978-93-81195-12-3).
- G.Harichandran, K. Muthu, S. David Amalraj & P. Thangamuniyandi. "Direct reductive amination of carbonyl compounds by NaBH<sub>4</sub> using SiO<sub>2</sub>-NaHSO<sub>4</sub> as catalyst". Proceeding of the National Conferences on Popularisation of Chemical Sciences 2012, 60-64 (ISBN : 978-93-81195-12-3).

#### List of Best Research paper award

 B.Akilandaeaswari, K.Muthu "Electrochemical Studies of Biosynthesized Gold-Silver Bimetallic Nanoparticles by using *Lawsonia inermis* seed aqueous fraction" International Conference on Nanomedicine (ICON – 2019) Organized by School of Chemistry, and School of Biotechnology, Madurai Kamaraj University, Madurai – 21 dated on 25<sup>th</sup> & 26<sup>th</sup> February 2019. (**Best Poster Award**)

- S. Mangala Nagasundari, K. Muthu "In-vitro Antioxidant Potential Ferric Reducing Power assay of *Pedalium* murex leaf extracts" Second International Conference on Recent Trends in Applied Science and Technology (ICRTAST - 2018) Organized by Department of Chemistry & Physics, Periyar University, Salem. Dated on 23 - 25 August 2018. (Best Poster award).
- B. Akilanda Easwari and Karuppiah Muthu "Biogenic synthesis of Gold Nanoparticles using *Lawsonia inermis* seed extract and their *in-vitro* Antioxidant Potential" International Conference on Advanced Functional Materials For Energy, Environment And Biomedical Applications (AFMEEB-2017) Organized by School of Physics, Chemistry, and Biological Sciences, Madurai Kamaraj University, Madurai – 21 dated on 11 & 12 December 2017. (Best Poster Award)

# List of paper presentation in International/National seminars/Conference

- 39 E. Vickneshkumar, S.Magalanaga Sundari and K. Muthu "In-vitro Antioxidant Activity of Xanthium strumarium root extract" International Conference on Research Initiatives in Chemistry for Sustainable Development (RICS-2019) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 18<sup>th</sup> & 19<sup>th</sup> March 2019.
- 38 K. Sudha, B. Akilandaeaswari and K. Muthu "Biogenic Silver Nanoparticles by Jatropha gossypiifolia Leaves Extract: Synthesis, characterization, and Photocatalytic Activity" International Conference on Research Initiatives in Chemistry for Sustainable Development (RICS-2019) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 18<sup>th</sup> & 19<sup>th</sup> March 2019.
- 37 B. Ranjitha, B. Akilandaeaswari and K. Muthu "Synthesis and Characterization of Silver Nanoparticles from Lignocaine Hydrochloride gel and their photocatalytic activity" International Conference on Research Initiatives in Chemistry for Sustainable Development (RICS-2019) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 18<sup>th</sup> & 19<sup>th</sup> March 2019.

- 36 I. Mariammal, B. Akilandaeaswari and K. Muthu "Preliminary Phytochemical Screening and Total Phenolic content of different solvent extract of Abelmoschus ficulneus dry seeds" International Conference on Research Initiatives in Chemistry for Sustainable Development (RICS-2019) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 18<sup>th</sup> & 19<sup>th</sup> March 2019
- 35 S. Karthika, S. Mangal Nagasundari and K. Muthu "Synthesis and Characterisation of ZnO Nanoparticles from Biophytum Sensitivum Leaf extract and their Antioxidant Activity" International Conference on Research Initiatives in Chemistry for Sustainable Development (RICS-2019) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 18<sup>th</sup> & 19<sup>th</sup> March 2019.
- 34 Karuppiah Muthu, Sundar Raj Rini "Catalytic reduction of Methyl Orange using Biosynthesized Silver Nanoparticles from *Catharanthus roseus* flower extract" Second International Conference on Recent Trends in Applied Science and Technology (ICRTAST - 2018) Organized by Department of Chemistry & Physics, Periyar University, Salem. Dated on 23 - 25 August 2018.
- 33 S. Mangala Nagasundari, K. Muthu "In-vitro Antioxidant Potential Ferric Reducing Power assay of *Pedalium* murex leaf extracts" Second International Conference on Recent Trends in Applied Science and Technology (ICRTAST - 2018) Organized by Department of Chemistry & Physics, Periyar University, Salem. Dated on 23 - 25 August 2018. (Best Poster award)
- 32 B. Akilandaeaswari and Karuppiah Muthu "Evaluation of phytochemical and Total Reducing Power of different solvent extracts of *Jatropha gossypiifolia* Leaves" Second International Conference on Recent Trends in Applied Science and Technology (ICRTAST - 2018) Organized by Department of Chemistry & Physics, Periyar University, Salem. Dated on 23 – 25, August 2018.
- 31 **Karuppiah Muthu** "Biosynthesis of silver microflower from *Peltophorum pterocarpum* flowers extract" International conference on "Recent Advances in Materials for Energy and Environmental Remediation (RAMEER – 2018) Organized by Department of

Chemistry, VHNSN College (Autonomous), Virudhunagar. Dated on 28<sup>th</sup> & 29<sup>th</sup> June 2018.

- 30 B. Akilandaeaswari and Karuppiah Muthu "Characterizations and Optimization Study on Influence of Different Parameters on Silver Nanoparticle from Areca catechu Seed Extract" International conference on "Recent Advances in Materials for Energy and Environmental Remediation (RAMEER – 2018) Organized by Department of Chemistry, VHNSN College (Autonomous), Virudhunagar. Dated on 28<sup>th</sup> & 29<sup>th</sup> June 2018.
- 29 S.MangalaNagasundari, K. Muthu, G.Ananthi, K.Murugan "Urinary tract infection controlling herb *Pedalium murex* phytochemicals and antibacterial activity" International conference on "Recent Advances in Materials for Energy and Environmental Remediation (RAMEER – 2018) Organized by Department of chemistry, VHNSN College (Autonomous), Virudhunagar. Dated on 28<sup>th</sup> & 29<sup>th</sup> June 2018.
- 28 Karuppiah Muthu "Biosynthesis of Silver Nanoparticles using *Peltophorum pterocarpum* leaf broth" International Conference on Advances in New materials [ICAN 2018]. Organized by Department of Inorganic Chemistry, University of Madras. Dated on 08<sup>th</sup> & 09<sup>th</sup> June 2018.
- 27 B. Akilanda Easwari and Karuppiah Muthu "Synthesized, Characterization and Catalytic activity of Gold Nanoparticles using *Millingtonia hortensis* stem bark aqueous extract" International Conference on Advances in New materials [ICAN 2018]. Organized by Department of Inorganic Chemistry, University of Madras. Dated on 08<sup>th</sup> & 09<sup>th</sup> June 2018.
- 26 K. Muthu, S. Priya, S. Mangala Nagasundari, B. Akilanda Easwari "Green Synthesis, Characterization and Catalytic Application of Silver Nanoparticles" International Conference on Recent Trends in Synthetic Methods and Material Chemistry (RTSMC-2018) Organized by Department of Chemistry, Annamalai University, Chidambaram – 608 002, dated on 2nd & 3rd February 2018.
- B. Akilanda Easwari and Karuppiah Muthu "Catalytic reduction of p-Nitrophenol using Biogenic Synthesis Gold Nanoparticles from *Lawsonia inermis* seed Extract" International Conference on Recent Trends in Synthetic Methods and Material Chemistry (RTSMC-2018) Organized by Department of Chemistry, Annamalai University, Chidambaram – 608 002, dated on 2nd & 3rd February 2018.

- S. Mangala Nagasundari, B. Akilanda Easwari, Karuppiah Muthu "Green Synthesis, Characterization and Antioxidant Activity of Silver Nanoparticles using Casuarina equisetifolia leaves Extract" International Conference on Recent Trends in Synthetic Methods and Material Chemistry (RTSMC-2018) Organized by Department of Chemistry, Annamalai University, Chidambaram – 608 002, dated on 2nd & 3rd February 2018.
- B. Akilanda Easwari and Karuppiah Muthu "Biogenic synthesis of Gold Nanoparticles using *Lawsonia inermis* seed extract and their *in-vitro* Antioxidant Potential" International Conference on Advanced Functional Materials For Energy, Environment And Biomedical Applications (AFMEEB-2017) Organized by School of Physics, Chemistry, and Biological Sciences, Madurai Kamaraj University, Madurai 21 dated on 11 & 12 December 2017. (Best Poster Award)
- 22 Karuppiah Muthu "Green synthesis of Silver Nanoparticles from *Cassia auriculata* Flower Extract and its Catalytic Reduction of 4-nitrophenol" International Conference on Advanced Functional Materials For Energy, Environment And Biomedical Applications (AFMEEB-2017) Organized by School of Physics, Chemistry, and Biological Sciences, Madurai Kamaraj University, Madurai – 21 dated on 11 & 12 December 2017.
- 21 K. Muthu, S. Violet and S. Mangala Nagasundari, "Biosynthesis of Silver Nanoparticles using *Celastrus paniculatus* Flower Extract and its Antioxidant Potential" International Conference on Advanced Functional Materials For Energy, Environment And Biomedical Applications (AFMEEB-2017) Organized by School of Physics, Chemistry, and Biological Sciences, Madurai Kamaraj University, Madurai – 21 dated on 11 & 12 December 2017.
- 20 Karuppiah Muthu, S. Rajeswari and Rajmohan Rangasamy "Catalytic Reduction of Organic dyes using Green Synthesized Silver Nanoparticles from Punica granatum seeds extract" International Conference on Advanced Functional Materials For Energy, Environment And Biomedical Applications (AFMEEB-2017) Organized by School of Physics, Chemistry, and Biological Sciences, Madurai Kamaraj University, Madurai – 21 dated on 11 & 12 December 2017.
- 19 B. Akilanda Easwari and Karuppiah Muthu "Green Synthesis of Au NPs from *Millingtonia hortensis* Stem Bark Extract Separated fraction and their *in-vitro*

Antioxidant activity" Two days National Conference on Biomaterials in Medicinal Chemistry (BMC-2017) Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 12 & 13 April 2017.

- 18 E R Anishiya chella daisy and Karuppiah Muthu "Green Synthesis of Gold Nanoparticles using *Coleus amboinicus* leaf extract and its Catalytic degradation of organic dyes" Two days National Conference on Biomaterials in Medicinal Chemistry (BMC-2017) Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 12 & 13 April 2017.
- 17 S. Starling Nishka and Karuppiah Muthu "Ecofriendly Biosynthesis of Silver Nanoparticles using Annona muricata leaf extract and its *in-vitro* Antioxidant activity" Two days National Conference on Biomaterials in Medicinal Chemistry (BMC-2017) Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 12 & 13 April 2017.
- 16 Karuppiah Muthu "Casuarina equisetifolia leaf extract mediated Biosynthesis of Silver Nanoparticles" Two days National Conference on Biomaterials in Medicinal Chemistry (BMC-2017) Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 12 & 13 April 2017.
- 15 B. Akilanda Easwari and Karuppiah Muthu "Phytosynthesis of Gold Nanoparticles using *Millingtonia hortensis* stem bark aqueous extract and the Catalytic reduction of pnitrophenol" National Conference on Recent Advances in the Applications of Macromolecular Materials (RAAMM -2017) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 2<sup>nd</sup> & 3<sup>rd</sup> March 2017.
- 14 E R Anishiya chella daisy and Karuppiah Muthu "In-vitro Antioxidant activity and Preliminary Phytochemical Investigation of Coleus amboinicus leaves Extract" National Conference on Recent Advances in the Applications of Macromolecular Materials (RAAMM -2017) Organized by Department of Chemistry, Gandhigram Rural Institute -Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 2<sup>nd</sup> & 3<sup>rd</sup> March 2017.
- 13 S. Starling Nishka and **Karuppiah Muthu** "Preliminary Phytochemicals Screening and Free Radical Scavenging activities of Annona muricata leaf Extract" National Conference

on Recent Advances in the Applications of Macromolecular Materials (RAAMM -2017) Organized by Department of Chemistry, Gandhigram Rural Institute - Deemed University, Gandhigram-624 302, Dindigul, Tamil Nadu. dated 2<sup>nd</sup> & 3<sup>rd</sup> March 2017.

- 12 Karuppiah Muthu "Antioxidant activity of biosynthesized Silver Nanoparticles from *Ixora coccinea* L., flower extract" National seminar on New Trends in Chemistry (NTC-2016) Organized by Department of Chemistry, Annamalai University, Chidambaram – 608 002, dated on 21 & 22 October 2016.
- 11 Karuppiah Muthu "Biosynthesis and Antioxidant activity Silver Nanoparticles using Ixora coccinea L., flower extract" One day National Symposium on Recent Developments in Chemistry – 2016, Organized by Department of Physical Chemistry, Madurai Kamaraj University, Madurai – 21 dated on June 4, 2016.
- 10 Kamaraj Banupriya and Karuppiah Muthu "Green Synthesis of Silver Nanoparticles using *Datura metel* Leaves Extract" Two days National Conference on Biomaterials in Medicinal Chemistry Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 21 & 22 December 2015.
- 9 Karuppiah Muthu "Tephrosia purpurea Flower Extracts Mediated Biosynthesis of Silver Nanoparticle" International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15) Organized by Department of Physical Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 11<sup>th</sup> & 12<sup>th</sup> December 2015.
- 8 S. Priya and K.Muthu "Antioxidant activity of Green synthesized Silver Nanoparticles using *Cassia auriculata* flower extract" CSIR sponsored Fourth National Conference on Advanced Functional Materials and Applications (NCAFMA-2015) Organized by Department of Chemistry & IRC, Kalasalingam University, Anand Nagar, Krishanankoil, Virudhunagar (DT) dated on April 02 & 03 2015.
- M. Seethalakshmi & K. Muthu "Biogenic Silver nanoparticles by *Gomphrena globosa* flower extract synthesis and catalytic activity" CSIR sponsored Fourth National Conference on Advanced Functional Materials and Applications (NCAFMA-2015) Organized by Department of Chemistry & IRC, Kalasalingam University, Anand Nagar, Krishanankoil, Virudhunagar (DT) dated on April 02 & 03 2015.

- 6 S. Rini & K. Muthu "Bio-mediated synthesis of Silver nanoparticles using *Catharanthus roseus* flower extract and their catalytic activity" CSIR sponsored Fourth National Conference on Advanced Functional Materials and Applications (NCAFMA-2015) Organized by Department of Chemistry & IRC, Kalasalingam University, Anand Nagar, Krishanankoil, Virudhunagar (DT) dated on April 02 & 03 2015.
- 5 S. Rajeswari & K. Muthu "Phyto-Synthesis of Silver Nanoparticles using *Punica granatum* fruits extract" UGC Sponsored National Seminar on Recent Developments in Chemistry (RDC'14) Organized by Department of Chemistry, Sadakathullah Appa College, Rahmath Nagar, Tirunelveli dated on 19<sup>th</sup> & 20<sup>th</sup> Aug 2014.
- 4 K. Muthu, P. Pon Matheswari, M. Seethalakshmi & R. Rangasamy. "Mallingtonia hartensis leaf aqueous extract synthesis of Silver Nanoparticles" UGC Sponsored National Seminar on Recent Developments in Chemistry (RDC'14) Organized by Department of Chemistry, Sadakathullah Appa College, Rahmath Nagar, Tirunelveli dated on 19<sup>th</sup> & 20<sup>th</sup> Aug 2014.
- 3 K. Muthu, S.V. Sheen Mers & R. Rangasamy "Green Synthesis of Silver Nanoparticles using *Ixora coccinea* L., Leaves" National Symposium on Newer Horizons in Chemistry (NSNHC-2012). Organized by Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12 (09 March 2012).
- N. Ramya, M. Hema, K. Muthu, S. Nagaraj & R. Rengasamy "In-Vitro antibacterial activity of Cyperus rotundus L.," National conference on Current Trends in Chemistry (NCCTC -2011). Organized by Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (24<sup>th</sup> & 25<sup>th</sup> March 2011).
- T. Vahitha Banu, S.V. Sheen Mers, K. Muthu, S. Nagaraj & R. Rengasamy "Antimicrobial activity from the flowers of *Ixora coccinea* L.," National conference on Current Trends in Chemistry (NCCTC -2011). Organized by Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (24<sup>th</sup> & 25<sup>th</sup> March 2011).

# List of participation in International/National seminars/Conference/Workshops

- One day National Level Workshop on "Art of Writing Bibliography based on Mendeley Reference manager" Organized by Perunthalaivar Kamarajar Library, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu dated on 30<sup>th</sup> March 2016.
- Two days National Conference on Biomaterials in Medicinal Chemistry Organized by Department of Natural Product Chemistry, Madurai Kamaraj University, Madurai – 21 dated on 21 & 22 December 2015.
- International Conference on Recent Advances in Materials and Chemical Sciences (ICRAMCS-2015) Organized by Department of Chemistry, Gandhigram Rural Institute -Deemed University Dindigul dated on 14 & 15, December 2015.
- MUTA 3<sup>rd</sup> Academic Conference and Seminar on the theme "Contemporary Issues in Higher Education" Organized by Sree Ayyappa College for Women, Chunkankadai, Kanyakumari District, dated on 26<sup>th</sup> September 2015.
- One day seminar on "reaching the Unreached: Higher Education in India Today" Organized by Curriculum Development cell, M.S.U. Tirunelveli dated on 25<sup>th</sup> August 2015
- One-Day Workshop on "Indian Community College System An Overview" Organized by Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu dated on 30<sup>th</sup> March 2015.
- Two day workshop on "Mobilization of Impact making R&D Projects" Organized by Curriculum Development cell, M.S.U. Tirunelveli dated on 11<sup>th</sup> &12<sup>th</sup> Dec 2014.
- State level seminar on "Towards Inclusive, Equitable, Secular and Quality Higher Education for All" Organized by MUTA (MUTA XXII Conference) dated on 27<sup>th</sup> Sep 2014.
- UGC Sponsored National Seminar on Recent Developments in Chemistry (RDC'14) Organized by Department of Chemistry, Sadakathullah Appa College, Rahmath Nagar, Tirunelveli dated on 19<sup>th</sup> & 20<sup>th</sup> Aug 2014.
- International Conference on Advances in New materials [ICAN 2014]. Organized by Department of Inorganic Chemistry, University of Madras. Dated on 20<sup>th</sup> & 21<sup>st</sup> June 2014.
- Faculty Development series III, UGC Plan project: Recent Development, Organized by Curriculum Development cell, M.S.U. Tirunelveli dated on 09<sup>th</sup> April 2014.

- National Seminar on "Catalysis and Catalyzed reactions" Organized by Department of Natural Product Chemistry, Madurai kamaraj University, Madurai. Dated on 28<sup>th</sup> march 2014.
- National Conference on Popularisation of Chemical Sciences (NCPC-2012)" to be organized by the Department of Chemistry, Guru Nanak College, Velachery, Chennai-42 on 6<sup>th</sup> to 8<sup>th</sup> January 2012.
- "National Workshop on Green Chemistry (NWGC-2011)" Organized by Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (17<sup>th</sup> to 22<sup>th</sup> August 2011).
- "Recent Trends in Natural Products Chemistry (RTNPC-2011)" Organized by Department of Pharmaceutical Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (18<sup>th</sup> March 2011).
- "National Seminar on Structural Bioinformatics -2011" Organized by Department of Physics, Manonmaniam Sundaranar University, Tirunelveli -12. (4<sup>th</sup> March 2011)
- "One day Workshop on Inflibnet User Awareness Concerning N List" Organized by University Library, Manonmaniam Sundaranar University, Tirunelveli -12. (11<sup>th</sup> Feb 2011)
- "National Seminar on Emerging Trends in Nanoscience (ENT) 2010" Organized by PG & Research Department of Chemistry, Sri Paramakalyani College, Alwarkurichi, Tirunelveli (Dist), Tamilnadu.

# Details of Seminars, Conferences etc. organized during last 5 years

- National **Seminar** : (Organizing committee)
  - National conference on Chemistry for Sustainable Energy, Clean Environment and Health (CEEH). Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (21<sup>st</sup> & 22<sup>nd</sup> January 2015)
  - National conference on Current Trends in Chemistry (NCCTC -2011). Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (24<sup>th</sup> & 25<sup>th</sup> March 2011).

 National Symposium on Newer Horizons in Chemistry (NSNHC-2012). Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12 (09 March 2012).

# **Workshop** : (Organizing committee)

 National Workshop on Green Chemistry (NWGC-2011)" Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli -12. (17<sup>th</sup> to 22<sup>th</sup> August 2011).