

# CURRICULUM VITAE

## Dr. A. AGILA,

Assistant Professor in Chemistry,  
PG and Research Department in Chemistry,  
Holy Cross (Autonomous) College,  
Tiruchirappalli – 620 002.  
Mobile No: 99442 00551

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## Objective

To be the best I can, by my own values and judgement, to be a part of a team, contributing, learning and enhancing my development both as a professional and as a human being.

## Educational Qualification

- 2000 - B. Sc Chemistry, Holy Cross College, Trichy.
- 2002 - M. Sc Chemistry, Bishop Heber College, Trichy.
- 2004 - M. Phil Chemistry, Seethalakshmi Ramaswami College, Trichy.
- 2009 - B.Ed, Government College of Education , Pudukkottai.
- 2019 - Ph.D Chemistry, Holy Cross College, Trichy – 2014-2019  
Title: Phytochemical Screening and synergistic biosorption  
Characteristics of *Terminalia paniculata*, *Hopea parviflora* ,  
commercially activated carbon – A Comparative approach in the  
uptake of Ni(II) and Cr(VI) ions

## Subjects of Expertise:

Inorganic Chemistry, Analytical Chemistry, Food  
Chemistry and Environmental Chemistry

## Professional Skills:

- Possess nearly 14 years of teaching experience
- Possess excellent organizational ability and managerial skills.
- Possess good command over the subject(both theory and practicals)
- Logical and critical thinking, ability to solve the problem quickly and efficiently and management ability
- Ability to handle theory and practical classes by ICT mode
- Excellent communication skill to deliver and present learning effectively .
- Good mentor and counselor.

## Positions held:

S. No.	Name of the Position	Period
1.	Department Association in charge	2018-2019
2.	Department Library in charge	2016-2019
3.	Discipline committee member	2016- 2017
4.	PG Class Coordinator	2016 - 2018 & 2020-2022
5.	Department sports representative	2016-2017 & 2020-2021
6.	Department NAAC IV parameter Incharge	2016 onwards
7.	Department NSS representative	2020-2022
8.	Department PTA Incharge	2021-2022
9.	International conference Souvenir Incharge	2022-2023
10.	Examination cell core committee member	2022 onwards
11	Department centenary Exhibition incharge	2022-2023
12	Department centenary Stall Incharge	2022-2023
13	Department centenary sports Day Incharge	2023-2024
14.	RRC Coordinator	2023 onwards
15	Bursar, HCC Staff Club	2023-2024
16	Department Rescape Incharge	2024-2025

**E-lessons developed:**

S. No	Title of e-lessons
1.	Catalysis
2.	Corrosion
3.	Paper Electrophoresis

**Research Undergone:**

- Ph.D. - Phytochemical Screening and synergistic biosorption Characteristics of *Terminalia paniculata*, *Hopea parviflora* commercially activated carbon – A Comparative approach in the uptake of Ni(II) and Cr(VI) ions.
- M.Phil. – Assessment of water quality index at pilgrim centres in

Trichirappalli district.

- M.Sc. – Study on soil quality parameters in cultivational fields.

### **Research Areas:**

- Environmental Pollution analysis
- Removal of heavy metals using low cost adsorbents by adsorption.
- Phytochemistry
- Synthesis of green nano particles as reductants.

### **Research Projects:**

- Guided - **14** M.Sc. Students
- Guided - **30** B.Sc. Students (SBE projects)

### **Awards:**

1. Received the **Young Researcher Award – 2022** (20223YRA129) awarded by **INSC** for research contribution in Chemistry.
2. Received the **Fellowship certificate – 2022** (F864/BSS/2022) in recognition of her outstanding contribution to the promotion of scientific research in Chemistry.

### **Membership in Professional bodies:**

1. Life member in the **Association of Chemistry Teachers (ACT)**, Mumbai.
2. Life member in the **Institute of Scholars** (Membership ID : 20223YRA129)
3. Life member in the **Bose Scientific Society** (Membership number : M964/BSS/2022)

### **Reviewer:**

1. Acting as **Reviewer** in INSC – International Journal of Engineering, Basic Sciences , Management and Social Studies.

### **Book Chapter : 2**

1. Published a book chapter in the book entitled "Advances in Chemical Sciences (Volume - 3)", Integrated Publications, New Delhi.
2. Published a book chapter Phyto synthesis of zinc oxide nanoparticles mediated by flavonoid fraction extracted from melia dubia bark and its antioxidant, anticancer and

photocatalytic activity in the book entitled " Futuristic Trends in Chemical Material Sciences & Nano Technology Volume 3 Book 16 , 30<sup>th</sup> April 2024

### **Paper Publications : 18**

1. Exploring the Therapeutic Potential of Pergularia daemia: Synthesis and Characterization of Zinc Oxide Nanoparticles, Agila A, Dakshayani R, Vimala J. R, Bharathy M. S, Sheela S. M, Vimala S, Nivetha S, *Oriental Journal of Chemistry*, 2024;40(4).
2. Antibacterial agent of Echinochloa esculenta-Mediated ZnO Nanoparticles on Urinary infection-causing bacteria, Moses Stella Bharathy, Gnana Sekar Dayana Jeyaleela, Joseph Devaraj Rosaline Vimala, Aranganathan Agila, Arockiya raj and Divya, *Journal of Pharmaceutical Sciences*, 2024; 12(1).
3. Green synthesis of paspalum scrobiculatum mediated copper oxide nanoparticles and its anti-bactericidal activities Aranganathan Agila, Dayana Jeyaleela , , Stella Bharathy, Rosaline Vimala, , Margrat Sheela, Sivasangu Vimala and Kasirajan Gayathri , *Asia Pacific Journal of Science and Technology*. 28 (01), 1-8
4. Inhibitory effect of Basella alba-Mediated zinc oxide nanoparticles against the infection-causing bacteria, Agila Aranganathan, Dayana Jeyaleela Gnanasekar, Vimala Joseph Devaraj Rosaline, Bharathy Moses Stella, Sheela Sagaya Adaikalaraj Margrat, *Biomedical and Biotechnology Research Journal*, 2022 6(3), 353 – 359.
5. Anti-Oxidant and anti-cancer activities of biogenic synthesized copper oxide Nanoparticles, Agila Aranganathan, Dayana Jeyaleela Gnanasekar, Vimala Joseph Devaraj Rosaline, Bharathy Moses Stella, Sheela Sagaya Adaikalaraj Margrat, *Biomedical and Biotechnology Research Journal*, 2022 6(3), 341.
6. In vitro Pharmacological activities of Delonix elata extract mediated zinc oxide Nanoparticles, *Oriental Journal of Chemistry*, 2022, 38 (4) 1037 – 1046.

- 7 Comparison of Anti-Inflammatory Activities of Biogenic *Gymnema Sylvestre* and *Panicum sumatrense* Mediated Titanium Dioxide Nanoparticles, M. Stella Bharathy, J. Rosaline Vimala, A. Agila and S. Margrat Sheela, Biomedical and Biotechnology Research Journal, 5(4) 2021,405-411.
8. Potential Use of Copper Oxide Nanoparticles from *Solanum trilobatum* against Pathogenic Bacteria M. Stella Bharathy, J. Rosaline Vimala and A. Agila, , Oriental Journal of Chemistry, 37 (4), 2021, 991-996.
9. Biofabrication of Zinc Oxide Nanoparticles using the Isolated Flavonoid from *Combretum ovalifolium* and its Antioxidative Ability and Catalytic degradation of Methylene Blue Dye, S. Margrat Sheela, J. Rosaline Vimala, A. Agila, M. Stella Bharathy, G. Dayana Jeyaleela, and M. Divya, , Oriental Journal of Chemistry, 36(4), 2020, 655-664
10. *Pseudoranthimum reticulatum* : A New Green source for Dyeing of cotton Fabric, S. Margrat Sheela, J. Rosaline Vimala , A. Agila, M. Stella Bharathy, Asian Journal of Chemistry, 32 (10), 2020, 2585-2588.
11. Biofabrication of Zinc oxide nanoparticles using the isolated flavanoid from *Combretum ovalifolium* and its Anti-oxidative Ability and Catalytic Degradation of Methylene Blue Dye, G. Dayana Jeyaleela, S. Margrat Sheela, J. Rosaline Vimala, A. Agila, M. Stella Bharathy and M. Divya, *Oriental Journal of Chemistry*, Volume 36 No.(4), July 2020, 655-664
12. Studies on the removal of Ni(II) ions from aqueous solution using natural adsorbent *Prosopis juliflora* bark, M. Stella Bharathy, A. Agila, J. Rosaline Vimala, International Journal of scientific and Engineering Research,7(8), 2016,243-248.
13. Adsorption of Nickel (II) ions from aqueous solution by using *Terminalia chebula*

seed carbon, A. Agila, J. Rosaline Vimala, M. Stella Bharathy, *International Journal of Scientific and Engineering Research*,7(8), 2016,1-7.

14. Diplocyclos palmatus Seed powder: An ecofriendly sorbent for the uptake of Ni (II) from aqueous solution. M. Stella Bharathy, A. Agila, J. Rosaline Vimala, *Journal of Pharmacognosy and Phytochemistry*,7(3), 2018, 2425-2432.

15. Natural Sand as an Adsorbent for the Removal of Ni(II) from Aqueous Solution. M. Stella Bharathy, A. Agila, J. Rosaline Vimala, *International Journal of Scientific Research and Review*, 7(6), 2018,309-317.

16. Studies on the removal of Ni(II) ions from Ni (II) ions from aqueous solution using natural *Prospus Juliflora* bark, adsorbent, A. Agila, M. Stella Bharathy, J. Rosaline Vimala, *International Journal of Scientific and Engineering Research*, 7(8), 2016, 243-248

17. Adsorption of Nickel (II) ions from aqueous solution by using Terminalia chebula seed carbon, A. Agila, J. Rosaline Vimala, M. Stella Bharathy, *International Journal of Scientific and Engineering Research*, 7(8), 2016, 1-7.

18. Study on quality of drinking water at pilgrim centres in Tiruchirappalli, Janaki Arunan, S. Lalitha, R. Kasthuri, K. Banumathi and A. Agila, *International Journal of Environmental Protection*, 24(3), March 2004.

**Conference/Seminar/Workshop/ Training Programme Participated /Presented:**

S. No.	Theme	Place	International / National / State level	Year	Resource Person / Paper Presentation / Participation
1	Adsorption of Nickel (II) Ions from Aqueous Solution by using Terminalia chebula seed carbon, International Conference on Chemistry of	Holy Cross College (Autonomous), Trichy on 27 <sup>th</sup> and 28 <sup>th</sup> July 2016.	International conference	2016	Presented

	Biomolecules Current Trends and Future Perspectives [ICCBCTFP-2016]				
2	Studies on the removal of Ni(II) ions from aqueous solution using natural adsorbent <i>Prospus Juliflora</i> bark, International Conference on Chemistry of Biomolecules Current Trends and Future Perspectives [ICCBCTFP-2016]	Holy Cross College (Autonomous), Trichy on 27 <sup>th</sup> and 28 <sup>th</sup> July 2016.	International conference	2016	Presented
3	Adsorption Of Nickel (Ii) From Aqueous 4Solution Using Acid Treated <i>Terminalia Paniculata</i> , International conference on “Networking, Research and Innovation in Higher Education for a Sustainable Society” Challenges and Channels”(ICNRI 2018)	Holy Cross College (Autonomous), Trichy on 25 <sup>th</sup> to 27 <sup>th</sup> July 2018.	International Conference	2018	Presented
4	Removal of Cr (VI) from Aqueous Solution by Adsorption onto Activated Carbon Prepared from <i>Diplocyclos palmatus</i> seed, International conference on “Networking, Research and Innovation in Higher Education for a Sustainable Society” Challenges and Channels”(ICNRI 2018)	Holy Cross College (Autonomous), Trichy on 25 <sup>th</sup> to 27 <sup>th</sup> July 2018.	International conference	2018	Presented
5	Uptake of Ni(II) from aqueous solution by environmentally benign adsorbent from the mixture of <i>Diplocyclos palmatus</i> seed and natural clay, International Conference on Chemical and Environmental Research (ICCER-2018).	Jamal Mohammed College (Autonomous) Trichy-20 .	International	2018	Presented
6	Bioremediation of Chromium (Vi) From Aqueous Solution Using Terminalia Paniculata - Hopea Parviflora (Th Mixture), 4 <sup>th</sup> International	Jamal Mohammed College(Autonomous) Trichy-20 on 19 <sup>th</sup> December 2018 .	International	2018	Presented

	Conference on Chemical and Environmental Research (ICCER-2018)				
7	<i>Diplocyclos palmatus</i> seed and natural clay mixture – An effective and ecofriendly adsorbent for the adsorption of Cr(VI) from aqueous solution, National Conference on Advances in Applied Chemistry	St. Joseph's College, Tiruchirappalli – 620 002 on 19 <sup>th</sup> December 2018.	National	2018	Presented
8	A Study of the Removal Characteristics of Ni(II) Ions Using Saw Dust of <i>Terminalia Paniculata</i> - <i>Hopea Parviflora</i> Mixture (TH Mixture), National Conference on Advances in Applied Chemistry.	St. Joseph's College, Tiruchirappalli – 620 002 on 14 <sup>th</sup> December 2018.	National	2018	Presented
9	Biogenic Synthesis of Copper Nanoparticles using Aqueous Leaf Extract of <i>Murraya Koenigii</i>	National Conference “Nano National Summit - Current Trends and Future Perspectives” at Holy Cross College (Autonomous), Trichy between 9th & 10th January 2019	National	2019	Presented
10	Preparation and Characterization of Green Absorbents and their Potential in Heavy Metal Removal	National Conference “Nano National Summit - Current Trends and Future Perspectives” at Holy Cross College (Autonomous), Trichy between 9th & 10th January 2019	National	2019	Presented
11.	<i>Terminalia paniculata</i> - Phytochemical screening and its suitability as ecofriendly adsorbent	National Conference “Nano National Summit - Current Trends and Future Perspectives” at Holy Cross College (Autonomous), Trichy between 9th & 10th January 2019	National	2019	Presented
12.	Employment of <i>Diplocyclos palmatus</i> seed and natural clay mixture as green adsorbent for enhanced	SRM Institute of Science and Technology, Chennai.	National	2019	Presented



	adsorption of Cr(VI) ion, National Conference on Recent Advances in Chemical Research (NCRACR-2019)				
13.	Faculty Development Programme on GChemPaint and LibreOffice Suite Writer	Spoken Tutorial Project, IIT Bombay, MHRD, Govt. of India	International	2020	participated
14	Webinar on Organic Reagents for Competitive Examinations	G.T.N Arts College, Dindugal 12.05.2020	National	2020	Participated
15	Online Chromatography Course	Sheth.M.N. Science College, Patan, Gujarat – 07.05.2020 To 16.05.2020	National	2020	Participated
16.	Webinar on Organic Reagents for Competitive Examinations	GTN Arts College, Dindigul – 12.05.2020	National	2020	Participated
17	Webinar on Everything started with Nothing-Make a Start, organized by Institution Innovation Council(IIC)	Holy Cross College (Autonomous), Trichy 13.05.2020	National	2020	
18.	Online Workshop On Animations	Universal Teachers Academy, Cuddalore- 14.05.2020 To 18.05.2020	National	2020	Participated
19.	Webinar on “Art of Writing Scientific Articles and Project Proposals”	Holy Cross College (Autonomous), Trichy  22.05.2020	National	2020	Participated
20	Webinar on “Healthy Immunity in Pandemic Situation” organized by CICRSD.	Holy Cross College (Autonomous), Trichy 26.05.2020	National	2020	Participated
21.	Webinar Series on”Reimaging Research in the Era of Disruptions and Uncertainties” organized by the Center for Research and Development, Capacity Building of Young Talent in Transdisciplinary Research for a Sustainable Development of Society, UGC, STRIDE COMPONENT 1,	Holy Cross College (Autonomous), Trichy on 27.05.2020.	National	2020	Participated
22.	HCCares Webinar Series on the topic”HEALTHY	Holy Cross College (Autonomous), Trichy	National	2020	Participated

	PARENTING STYLES”	27.05.2020			
23.	Webinar on Materials And Technology For Sustainable Development	St. Joseph College, Trichy – 28.05.2020 To 29.05.2020	National	2020	Participated
24.	Webinar Series on “Andragogy of Online Teaching” organized by IQAC.	Holy Cross College (Autonomous), Trichy 29.05.2020	National	2020	Participated
25.	Webinar Series on “Remote Classrooms-Digital Technology in Teaching Learning” organized by IQAC.	Holy Cross College (Autonomous), Trichy 30.05.2020	National	2020	Participated
26	HCCares Webinar Series on the topic”Seed and Weed-Nurturing Relationships”	Holy Cross College (Autonomous), Trichy 02.06.2020	National	2020	Participated
27.	Webinar on “Obesity and its role in Breast Cancer” organized by CICRSD, Holy Cross College(Autonomous), Trichy	Holy Cross College (Autonomous), Trichy 06.06.2020	National	2020	Participated
28	Webinar on “Discover Your values:COVID-19” organized by the Department of Value Education.	Holy Cross College (Autonomous), Trichy 10.06.2020	National	2020	Participated
29.	Webinar Series II on ”STRIDE Tutorial on Transdisciplinary Research” organized by the Center for Research and Development, Capacity Building of Young Talent in Transdisciplinary Research for a Sustainable Development of Society, UGC, STRIDE COMPONENT 1,	Holy Cross College (Autonomous), Trichy 11.06.2020	National	2020	Participated
30	Webinar Series on “Risk Management in Times of Crisis” organized by IQAC, Holy Cross College (Autonomous), Trichy	Holy Cross College (Autonomous), Trichy 12.06.2020	National	2020	Participated
31	Webinar on “ Combat the Pandemic Stress through Yoga”	Holy Cross College (Autonomous), Trichy 21.06.2020	National	2020	Participated
32	One week online International Faculty Development Program (FDP) on “Artificial Intelligence and IoT-Heuristic Transdisciplinary	Holy Cross College (Autonomous), Trichy 4.07.2020-10.07.2020	National	2020	Participated

	perspectives” organized by CICRSD.				
33.	FDP-Webinar Series III on organized by the Center for Research and Development, Capacity Building of Young Talent in Transdisciplinary Research for a Sustainable Development of Society, UGC, STRIDE	Holy Cross College (Autonomous), Trichy 13.07.2020- 18.07.2020	National	2020	Participated
34	Workshop on Introduction To Android App, Creation of Simple Android Apps and uploading the Apps in Play Store.	Universal Teachers Academy, Puducherry- 16.07.2020 To 20.07.2020	National	2020	Participated
35	Inhibitory Effect of <i>Basella Alba</i> mediated ZnO nanoparticles against the infection causing bacteria, International conference on “Sustainable Materials and Technologies for Bio and Energy Applications, (SMTBEA-2021)”	Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam-603110. (in association with Indian Science and Technology Association, Indian Association for Crystal Growth and IEEE communications Society Madras Chapter) during May 19-21, 2021.	International	2021	Presented
36	FDP on “Pedagogy and Research Methods”	Academy of Maritime Education and Training (AMET), Chennai, during May 24 – June 06, 2021.	National	2021	Participated
37.	International Workshop on “Interactive E-Assessment Tools”	Universal Teachers Academy, Puducherry, June 14-18, 2021.	International	2021	Participated
38.	Green synthesis , characterization and its antibacterial activity of copper nano particles using <i>Paspalum scrobiculatum</i> extract , International Symposium on Modeling of Crystal Growth Processes and Devices	Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam-603110. (in association with Indian Science and Technology Association, Indian Association for Crystal Growth and IEEE communications Society Madras	International	2021	Presented

		Chapter) during July 5-8, 2021.			
39	UGC stride component I and Holy Cross Incubation and Innovation council (HCIIC) - FDP on Transdisciplinary Research a way forward to Innovation and Entrepreneurship	Holy Cross College (Autonomous), Trichy – 620 002 during 19-23 July, 2021.	National	2021	Participated
40.	Green synthesis and antibacterial activity of nickel nanoparticles using trigonella Foenum – Graecum leaf extract, International Conference on Smart Materials Chemistry – CHEMSMAT-21	St. Joseph’s College (Autonomous), Trichy – 620 002 during 29-31 July,2021.	International	2021	Presented
41	National Webinar on The importance of Data Visualizations	Guru Angad Dev Teaching Learning Centre of MHRD, New Delhi on 10 August, 2021.	National	2021	Participated
42	Webinar on Building impactful career in Chemistry	Holy Cross College (Autonomous), Trichy – 620 002 during 11 August,2021.	National	2021	Participated
43	International conference on “Sustainable Materials and Technologies for Bio and Energy Applications, (SMTBEA-2021)”	Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam-603110. (in association with Indian Science and Technology Association, Indian Association for Crystal Growth and IEEE communications Society Madras Chapter) during May 19-21, 2021.	International	2021	Presented
44	National Seminar on Photocatalysis – Past, Present and Future.	Kongunadu College of Engineering and Technology, Trichy during 21-22 October, 2021.	National	2021	Participated
45	HCC WEBINAR - VI Boot camp for faculty	Holy Cross College (Autonomous), Trichy – 620 002 during 31st	Webinar	2021	Participated

		August, 2021 & 01 September 2021			
46	International Virtual Conference On “Futuristic Aspects of Sensors and Biosensors”(IVCFASB-2022)	Holy Cross College (Autonomous), Trichy – 620 002 during 03 <sup>rd</sup> and 4 <sup>th</sup> March 2022	International	2022	Presented a paper Biosynthesis, characterization, antioxidant and ant inflammatory activities of zinc oxide nanoparticles from leaf extract of Delonix elata
47	One week FDP Recent Advances in Chemistry - Guru Angad Dev Teaching Learning Centre of MHRD, New Delhi, 30.03.2022 to 05.04.2022	Vellore Institute of Technology, Chennai and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Ministry of Education	FDP	2022	Secured A Grade in all assessments and quiz
48.	One Month UGC sponsored 12 <sup>th</sup> Faculty Induction Programme – 28.10.2022 - 26.11.2022	Bharathidasan University, Tiruchirappalli	Faculty Induction Programme	2022	Secured A Grade in all assessments and quiz
49	One-Week Online National Faculty Development Program	Vellore Institute of Technology, Chennai and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education	FDP	2022	Secured Grade “A” 10th March to 5th April 2022
50	Two Weeks Refresher course on Forensic Chemistry and Forensic Science	(UGC-MMTTC/GAD-MMTTC), SGTB Khalsa College, University of Delhi	Refresher course	2024	Secured Grade A 6 <sup>th</sup> April to 30 <sup>th</sup> April 2024

## TEACHING EXPERIENCE – 14 years

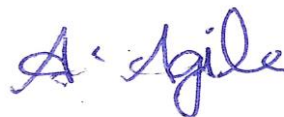
Name of the Institution	Designation	Working period	Working experience
Holy Cross College, Trichy.	Assistant Professor	02.07.2014 – till date	7 years
M.A.M School of Engineering, Trichy	Assistant Professor	23.05.2011 - 30.06.2014	3years 1 month
Holy Cross College, Trichy.	Lecturer	24.06.2004 -11.11.2007	4 years 4 months

### Personal Details

Date of Birth : August 3, 1979  
Father Name : S. Aranganathan  
Gender : Female  
Religion : Hindu  
Nationality : Indian  
Marital status : Married

**I hereby declare that the above information is true to the best of my knowledge.**

**Yours faithfully,**

A handwritten signature in blue ink, appearing to read 'A. Agile', is written below the text 'Yours faithfully,'.