

Curriculum Vitae

Dr. JAGADEESH KUMAR ALAGARASAN

Research Professor

School of Chemical Engineering

Yeungnam University,

Gyeongsangbuk-do- 712-749, South Korea -38544

Email: ajkumar@yu.ac.kr

Hand Phone: +82 010-9770-0307



RESEARCH AND PROFESSIONAL EXPERIENCE

S. No	Position Held	Nature of Work	Organization/ Institution	Research Area	Periods
1.	Assistant Professor	Research and Teaching	Yeungnam University, South Korea	Photocatalytic/ Adsorption Electro-oxidation	April 2022 to Present
2.	Post-Doctoral Fellow	Research and Teaching	Periyar University, India	Wastewater Treatment Adsorption/ Photocatalytic	April 2021- March 2022
3.	Post-Doctoral Fellow	Research	Jiangsu University, China	Adsorption/ Photocatalytic	Oct 2018 – Dec 2020
4.	Post-Doctoral Fellow	Research and Teaching	Southeast University, China	Adsorption	Jan 2016- March 2018
5.	Instructor of Advanced Water Chemistry	Teaching	Southeast University- Monash University Joint Training Course on Civil Engineering (Suzhou), China	Advanced Water Chemistry	Aug 2017- Feb 2018

ACADAMIC EDUCATION BACKGROUND

Doctor of Philosophy (Ph. D) in Environmental Science, OCT 2010 – DEC 2015, at Department of Environmental Science, Bharathiar University, Coimbatore, Tamil Nadu, India.

Thesis Title: "A Comparative Study on Removal of Organic Dyes on Thermal and Chemical Activated Mesoporous Carbon developed From *Jatropha* Husk, an Agricultural Solid Waste: Adsorption Dynamics and Kinetics Studies". Prof. C. Namasivayam

Master of Science (M. Sc) in Environmental Science, 2008 - 2010, at Department of Environmental Science, Bharathiar University, Coimbatore, Tamil Nadu, India.

Thesis Title: “**Adsorption of endocrine -active compound Bisphenol A on sulphuric acid activated carbon developed from coir pith an agro industrial, solid waste: equilibrium and kinetic studies**”. Prof. C. Namasivayam

Bachelor of Science (B. Sc) in Environment and Water Management, 2004 - 2007, at Bharathiar University, Coimbatore, Tamil Nadu, India.

RESEARCH AREAS

- ❖ **Electro-oxidation**
- ❖ **Photocatalytic Degradation**
- ❖ **Nanomaterials / Activated Carbon (Biomass, Plastics, Algae and Agricultural waste)**
- ❖ **Adsorption / Desorption (Organic Pollutants)**
- ❖ **Isotherms and Kinetics**
- ❖ **Bio Surfactant and Nanomaterials/Catalyst preparation**

AWARDS AND FELLOWSHIPS

1. Project Investigator (PI) “**Evaluation of Novel Filter Media in Bioretention Systems with References to Clogging and Plant Growth**”, Jiangsu Provincial Postdoctoral Research Funding Program (Grant No. 110500334) 80000 RMB in 2016-2018. Southeast University, Nanjing, Jiangsu Province, 210096, P. R. China.
2. I have been awarded for **Junior Research Fellowship** (From December 2010 to December 2013) at Bharathiar University, Coimbatore -641046.

POSITIONS AND HONORS

1. **Scientific Committee and Invited Talk of the 1st International Conference on Pollution Prevention and Clean Technologies and "Taiwan-India in Emerging Environment and Energy Challenges of Technology Exchange Workshop"** which is scheduled to take place on the 6th and 7th of December, 2021, Delhi.
2. **Co-chair and Scientific Committee** of the 4th International Conference on Alternative Fuels, Energy and Environment (ICAFEE 2019) will be organized by Green Energy and

Biotechnology Industry Research Center (GEBC), Feng Chia University (FCU), **Taichung, Taiwan during 18th - 21st October 2019.**

3. Co-chair and Scientific Committee of the 3rd International Conference on Alternative Fuels, Energy and Environment (ICAFEE & ICWRS 2018) which will be held in **Nanjing, China during 28th- 31st October 2018.**

4. Chief-Guest and Invited Speaker 17.12.2021 (Lumiere Association & Freshers Day) - Nandha College of Arts and Science college, Erode, India.

5. Visiting Research Scientist (June to July 2017): Fukuoka University, Research University in Fukuoka, Japan.

6. Visiting Research Scientist (Nov 2018) Khalifa University, Abu Dhabi, UAE.

LIST OF PUBLICATIONS

- 1) **Alagarasan Jagadeesh Kumar**, Shasikala Siddharthy, Eldon R. Rene, Pankaj Bhatt, Thangavelu Pazhanivel, Moonyong Lee*. Electro-oxidation of heavy metals contaminated water using banana waste-derived activated carbon and Fe₃O₄ nanocomposites. **Environmental Research (Accepted Aug 2022). IF. 8.44.**
- 2) **Alagarasan Jagadeesh Kumar**, Eldon R. Rene, R. P. Singh, Jimin Xie, Chinnaiya Namasivayam, and Yuanguo Xu*. Preparation and characterization of biodiesel waste derived biomass for the removal of dye from contaminated water. **Journal of Water Supply: Research and Technology-Aqua. (2020) 69 (4): 365-375. IF 3.07 : Citation 3.**
- 3) **Alagarasan Jagadeesh Kumar** and Chinnaiya Namasivayam*: Uptake of endocrine disruptor bisphenol-A onto Sulphuric acid activated carbon developed from biomass: Equilibrium and kinetic studies. **Sustainable Environment Research. 24(1), (2014) 73-80. IF 4.30 : Citation 21.**
- 4) **Alagarasan Jagadeesh Kumar**, Rajendra Prasad Singh, Dafang Fu* and Chinnaiya Namasivayam: Comparison of physical and chemical activated *Jatropha Curcas* husk carbon as an adsorbent for the **adsorption** of Reactive Red 2 from aqueous solution. **Desalination and Water Treatment. 95 (2017) 308-318. IF 1.25.**
- 5) **Alagarasan Jagadeesh Kumar**, Rajendra Prasad Singh, and Dafang Fu* and Chinnaiya Namasivayam: Low Cost Meso-porous Carbon developed from *Jatropha* husk, an Biodiesel by product Waste for adsorption of MB. **Fresenius Environmental Bulletin. 26 (10), (2017), 5723-5731. IF 0.48.**
- 6) G. Bharath, **A. Jagadeesh Kumar**, K. Karthick, D. Mangalaraj, C. Viswanathan and N. Ponpandian*: Shape evolution and size-controlled synthesis of mesoporous hydroxyapatite

nanostructures and their morphology dependent Pb (II) removal from waste water. **RSC Advances**. 2014 (4), 37446-37457. IF 4.03.

- 7) Haijun Wu, Puyang Zhou, **Jagadeesh Kumar Alagarasan**, Junjie Jing, Ting Zhou, Yuanguo Xu*. Construction of Novel PTh-BiOBr Composite with Enhanced Photocatalytic Degradation of Bisphenol A. **Advanced Powder Technology**. 32, (7), (2021), 2390-2397. IF 4.96.
- 8) Dharman Kalaimurugan, **Jagadeesh Kumar Alagarasan**, Palaninaicker Senthilkumar, Venkatesan Srinivasan*. Novel preparation of fungi conidiophores biomass as adsorbent for removal of phosphorus from aqueous solution. **Environmental Science and Pollution Research (ESPR)**. 19 March (2020), 114085. IF 5.19.
- 9) Rajendra Prasad Singh*, Jiaguo Wu, **Alagarasan Jagadeesh Kumar** and Dafang Fu. Study on Mercury Distribution and Speciation in Urban Road Run-off in Nanjing City, China. **Water**. 2017, 9, 779. IF 3.53.
- 10) Dafang Fu, R. P. Singh*, Xinde Yang, C.S.P. Ojha, Rao Y. Surampalli, and **Alagarasan Jagadeesh Kumar**: Sediment in-situ bioremediation by immobilized microbial activated beads: Pilot-scale study. **Journal of Environmental Management**. 226 (2018) 62-69. IF 8.91.
- 11) Pankaj Bhatt, Eldon R Rene, **Jagadeesh Kumar Alagarasan**, Wenping Zhang, Shaohua Chen. Binding interaction of allethrin with esterase: Bioremediation potential and mechanism. **Bioresource Technology**. 315, (2020),123845. IF 11.88: Citation 72.
- 12) Pankaj Bhatt, Yaohua Huang, Eldon R Rene, **Jagadeesh Kumar Alagarasan**, and Shaohua Chen*. Mechanism of allethrin biodegradation by a newly isolated *Sphingomonas trueperi* strain CW3 from wastewater sludge. **Bioresource Technology**. 305, (2020), 123074. IF 11.88 : Citation 73.
- 13) Rajendra Prasad Singh*, Dafang Fu*, Jiaguo Wu and **Alagarasan Jagadeesh Kumar**. Evaluation of various mercury forms in the urban road runoff sediments". **Desalination and Water Treatment**. 2018, 135, 210-220. IF 1.25.
- 14) Zhengzhao Li, Mingjing Dong, Tony Wong, Jianbin Wang, **Alagarasan Jagadeesh Kumar**, Rajendra Prasad Singh*. Objectives and an Index System for the Implementation of Sponge Cities-A Case Study of Changzhou City, China. **Water**. 2018, 10, 623. IF 3.53.
- 15) Bashir Adegbemiga Yusuf, Nabi Ullah, Meng Xie, Shahid Hussain, Chidinma Judith Oluigbo, Waleed Yaseen, **Jagadeesh Kumar Alagarasan**, Xie Jimin, YuanGuo Xu*. B-doped Ni₃Fe@C nanoparticles for efficient bifunctional performances of oxygen and hydrogen evolution reactions. **Journal of Alloys and Compounds**. 835, 15, 2020, 155267. IF 6.37.

- 16) Kaliannan Durairaj, Palaninaicker Senthilkumar*, Velayutham Priya, Palanivel Velmurugan, **Alagarasan Jagadeesh Kumar**: Novel synthesis of Chrysanthemum Indicum flower as an adsorbent for the removal of direct Congo red from aqueous solution. **Desalination and Water Treatment**. 2018 (113), 270 -280. **IF 1.25**.
- 17) Yaohua Huang, Ziqiu Lin, Wenping Zhang, Shimei Pang, Pankaj Bhatt, Eldon R. Rene, **Alagarasan Jagadeesh Kumar**, Shaohua Chen*. New insights into the microbial degradation of D-cyphenothrin in contaminated water/soil environments. **Microorganisms** (2020), **8**, 473. **IF 4.92 : Citation 59. Citation 21**.
- 18) Bashir Adegbemiga Yusuf, Nabi Ullah, Meng Xie, Chidinma Judith Oluigbo, Waleed Yaseen, **Jagadeesh Kumar Alagarasan**, Rajalakshmi Kanagaraj, Yuan Guo Xu*, Jimin Xie. B-Doped Carbon Enclosed Ni Nanoparticles: A Robust, Stable and Efficient Electrocatalyst for Hydrogen Evolution Reaction. **Journal of Electro analytical Chemistry**. 19 March (2020), 114085. **IF 4.59**.
- 19) Chidinma Judith Oluigbo, Nabi Ullah, Meng Xie, Waleed Yaseen, **Jagadeesh Kumar Alagarasan**, Rajalakshmi Kanagaraj, YuanGuo Xu*, Jimin Xie. Incorporation of pyridinic and graphitic N to Ni@CNTs: As a competent electrocatalyst for hydrogen evolution reaction. **International journal of Energy Research**. (2020); 1-9. **IF 4.67**.
- 20) Pankaj Bhatt, Anita Sharma, Eldon R. Rene, **Jagadeesh Kumar Alagarasan** and Shaohua Chen. Bioremediation mechanism and kinetics of the fipronil using Bacillus sp. FA3 from the contaminated soil/ water environment. **Journal of water process Engineering Volume 39, Feb (2021), 101712. IF 5.48**.
- 21) Pankaj Bhatt, Eldon R. Rene, **Jagadeesh Kumar Alagarasan** and Shaohua Chen. Fipronil degradation kinetics and resource recovery potential of Bacillus sp. strain FA4 isolated from a contaminated agricultural field of Uttarakhand, India. **Chemosphere. Volume 276, August (2021), 130156. IF 8.94**.
- 22) Chidinma Judith Oluigbo, Yuanguo Xu*, HitlerLouis, Bashir Adegbemiga Yusuf, Waleed Yaseen, **Jagadeesh Kumar Alagarasan**, Meng Xie, Esther Edison Ekpenyong, Jimin Xie. Controllable fabrication of abundant nickel-nitrogen doped CNT electrocatalyst for robust hydrogen evolution reaction. **Applied Surface Science. 23 May (2021), 150161. IF 7.39**.
- 23) Saurabh Gangola, Pankaj Bhatt*, **Alagarasan Jagadeesh Kumar**, Geeta Bhandari, Samiksha Joshi, Arjita Punetha, Kalpana Bhatt and Eldon R. Rene. Biotechnological tools to elucidate the mechanism of pesticide degradation in the environment. **Chemosphere. 296, (2022), 133916. IF 8.94**.
- 24) Pankaj Bhatt, Eldon R. Rene, Yaohua Huang, Xiaozhen Wu, Zhe Zhou, Jiayi Li, **Alagarasan Jagadeesh Kumar**, Anita Sharma, Shaohua Chen. Indigenous bacterial consortium mediated cypermethrin degradation in presence of organic amendments and Zea mays plant. **Environmental Research. 212 (212), 113137. IF 8.44**.

- 25) Sivarasan Ganesan, Sabarathinam Shanmugam, **Jagadeesh Kumar Alagarasan**, Arul Pragasan Lingassamy, Kirankumar Venkatesan Savunthari, Huang-Mu Lo, Vinoth Kumar Ponnusamy, 2022. Novel African Tulip Fruit Waste-Derived Biochar Nanostructured Materials for the Removal of Widespread Pharmaceutical Contaminant in Wastewaters. **Biomass Conversion and Biorefinery (Accepted, May 12, 2022). IF 4.05.**

UNDER REVIEW 2022

- 26) **Jagadeesh Kumar Alagarasan**, Siddharthy Shasikala, Manimekalan Arunachalam, Utaiyachandran Manojkumar, Senthilkumar Palaninaiker, Moonyong Lee. High Photoluminescent Silicon Quantum Dot-based Cyanide Sensors in Environmental and Bioimaging Applications. **Environmental Research (Under Review 2022). IF. 8.44.**

IMPORTANT CONFERENCE PROCEEDINGS

1. Presented a Poster in “The 3rd International Conference on Renewable Energy, Sustainable Environmental and Agricultural Technologies 22nd & 23rd December 2021, **Chiang Mai, Thailand**”.
2. Presented a Paper in “The 4th International Conference on Alternative Fuels, Energy and Environment (ICAFEE 2019)” from October 19-20 in ICAFEE 2019, at **Feng Chia University, Taichung, Taiwan. Alagarasan Jagadeesh Kumar***, C. Namasivayam, Jimin Xie, Yuanguo Xu. “Preparation and characterization of biodiesel waste derived biomass for the removal of DY12 from contaminated water”.
3. Presented a Paper in International Conference "10th International Conference Challenges in Environmental Science & Engineering (CESE - 2017), from November 11 to 15, 2017 in **Kunming, China. Alagarasan Jagadeesh Kumar***, RP Singh¹, Dafang Fu* and Chinnaiya Namasivayam. “Advanced Carbon-based Nanomaterials for Wastewater Treatment Applications: Adsorption Dynamics and Kinetics Studies”.
4. Presented a Poster in "1st International conference on Eco technologies for Controlling Non-Point Source Pollution and Protecting Aquatic Ecosystem (ENPE)", Van Tai Tang, Rajendra Prasad Singh, **Alagarasan Jagadeesh Kumar** and Dafang Fu. "Performance and structure of ecological revetment in subtropical-high rain fall area, 26-28 March 2017, **Nanjing, China.**

SKILLS AND ACCOMPLISHMENTS

- ❖ Ability to grace things quickly to work and adapt the situation easily.
- ❖ Ability to think innovatively and positively.
- ❖ Publish research articles in reputed cited journals and presented papers in scientific conferences.

- ❖ **Hands on experience: FESEM, UV-visible spectrophotometer, HPLC, ICP-MS/MS, FT-IR and XRD**
- ❖ As a potential reviewer of many Scientific Journals.

PERSONAL INFORMATIONS

Name : A. JAGADEESH KUMAR
Father's Name : P. ALAGARASAN (Late)
Nationality : Indian
Marital Status : Married
Passport Number : N3012335
DOB : 07-05-1986
Permanent Address : 2/3, Kandhanur, Kullamudaiyanur Post, Gonour Village,
Mettur Tk, Salem Dt, Tamil Nadu- 636404, India
Mobile : +82 010-9770-0307 or +91 9789293344

REFERENCES

Dr. R. P. Singh**Professor**

Dept. of Municipal Engineering
School of Civil Engineering
Southeast University
2 Sipailou, Nanjing, 210096, China
Phone: 15050527313
Email: rajupsc@seu.edu.cn

Dr. Eldon R. Rene**Assistant Professor**

Resource Recovery Technology at IHE
Delft Institute for Water Education,
The Netherlands.
Phone: +31 36316467
Email: e.raj@un-ihe.org

Dr. Gopalakrishnan Kumar**Associate Professor & Group leader,**

Department of Environmental Engineering,
University of Stavanger (UiS), Stavanger,
Norway
Email: gopalakrishnanchml@gmail.com
