



Dr. A. Arun
Professor and Head

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Academic Qualifications: M.Sc., M.Phil., Ph.D., PGDCA

Teaching Experience: 20 Years

Research Experience: 20 Years

Additional Responsibilities

1. Member of Senate, Alagappa University
2. Head of the Department.
3. Campus Director- Faculty of Science Campus- 25.1.2021 – Till date

4. Dean Industry and Consultancy – 07.10.2022 – Till date
5. Co-ordinator, Business Collaboration Centre, Nov, 2022 – Till date
6. Coordinator, Establishment of Bio-Plastic centre, Alagappa University, Karaikudi-12.5.2020 – Till date
7. Internal Expert - Institutional Biosafety Committee (IBSC), Alagappa University – 22.10.2020 to 22.10.2023.
8. Coordinator- Journal club Department of Microbiology, Alagappa University, Karaikudi.
9. Member – Coaching scheme for NET exam-, UGC schemes, Alagappa University, Karaikudi, Aug, 2016
10. Editor in Chief- ALU-Micro Fanzine, Departmental Magazine, Department of Microbiology, Alagappa University, Karaikudi.
11. Deputy Coordinator- Cultural club- Department of Microbiology, Alagappa University, Karaikudi.
12. Convener- Department Research Committee - Department of Microbiology, Alagappa University, Karaikudi.
13. Convener- Department purchase Committee - Department of Microbiology, Alagappa University, Karaikudi.
14. Convener- Department IQAC Committee - Department of Microbiology, Alagappa University, Karaikudi.
15. Convener- Department student affairs and counseling - Department of Microbiology, Alagappa University, Karaikudi.
16. Chairman of Valuation board for M.Sc., and M.Phil., Microbiology, Alagappa University
17. Deputy coordinator, Intellectual property cell, Alagappa University, 2018-19.

Areas of Research

- **Bioenergy**
- **Microbial fuel cell**
- **Bioremediation**
- **Biomass and Bioplastic**
- **Bioactive compounds**

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	9	8
	M.Phil.	9	1
Project	PG	63	9
	UG / Others	-	-

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
57	95	9	23	31

Cumulative Impact Factor : 367.381

h-index : 24

i10 index : 43

Total Citations : 1718

Patents

Patent- 01- Application No.202241020077 A (India)- A System for Refining Salt Effluent.

Publication Date: 15/04/2022.

Patent under Preparation: Natural CQDs with anticancer and Folic acid sensing assets

Funded Research Projects

Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		

1.	DST	2022	2025	DST Bioenergy & H ₂ MAP	1140.8705
2.	MHRD – SPARC (SPARC/2018-2019/P485/SL)	2019	2022	Cost Effective, Modified Microbial Bioplastics [Poly Hydroxyl Butyrate (PHB) And Poly Lactic Acid (PLA)] as an Alternative for the Petroleum Derived Plastics	56.57673
3.	RUSA Phase 2.0 2 nd phase grant	2022	2023	Theme based project in Bioenergy production	4.44

Consultancy Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	TNPCB, TN	2008	2009	Microbial analysis of Vaigai river	1.0
2	Galaxy Research Technologies, Karaikudi	15.05.2019	15.05.2020	Poly-hydroxyl-Alkonates (PHA) biopolymer research	3.6
3	Sustainable Hydrogen for Valuable Application (SHYVA), France	10.02.2023	10.07.2023	Highly efficient electrodes for hydrogen production from water	0.5

Ongoing DST-INSPIRE Fellowship under my Supervision

S. No	Agency and name of the candidate	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DST-INSPIRE (IF190230) Ms. Abishpha Bora	2019	2024	Utilization Of Various Industrial Wastes For Different Bioenergy Production Using Aerobic Photohetero Micro Algal Isolates	21.088

Completed RUSA Post doc Fellowship under my Supervision

S. No	Agency and name of the candidate	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	RUSA 2.0 Dr. R. Karthik Raja	07.08.2019	07.08.2021	Synthesizing of novel bioactive metallic nanoparticles using <i>Xenorhabdus</i> & <i>Photorhabdus</i> and evaluation of their therapeutic potential (antioxidant, antimicrobial and cytotoxic properties)	14.50

Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1.	RUSA Phase 2.0 1 st phase grant	2019	2021	Utilization of various lingo cellulosic wastes for the biodiesel production by microalgae under heterotrophic condition using Response surface methodology (RSM).	5.88
2.	UGC (MICR-2013-19708)	01.06.2015	01.06.2018	Biodegradable plastic (Poly - β - Hydroxybutyrate) production by marine microorganisms isolated from Tamilnadu coastal area	14.8
3.	DST-SERB (SB/YS/L S-47/2013)	Nov 2013	Nov 2016	Sequential Two-Stage Fermentation Process Producing Biohydrogen And Bioplastic (PHB) From Industrial Wastes	20.5
4.	AURF	2017	2019	Utilization of <i>Pedaliium murex</i> for	3.0

	(AU:SO (P&D): Interdepa rtmental Research: 2017)			Biodiesel and Silver Nanoparticles Production	
5.	MBAI	2017	2018	Study on the enhancement of bioelectricity production by marine bacteria	0.2
6.	UGC	March 2004	March 2005	Production of Poly hydroxybutyrate by using various industrial wastes	0.8
7.	UGC	March 2009	March 2011	Polycyclic Aromatic Hydrocarbons (PAHs) Biodegradation by the Wild Basidiomycetes Fungi, Bacterial Isolates from Oil Spilled Soil, and their co- cultures: Comparative <i>In Vivo</i> and <i>In Silico</i> Approach	7.028
8.	TNSCST	2002		Utilization of different industrial wastes for the production of biopolymer (Polyhydroxy butrate) by using <i>Ralstonia eutropha</i>	0.05
9.	FLORA	2003		Microbial power generation by using marine sea mud – sea water interface and dairy industry waste – sea water interface	0.05
10	TNSCST	2004		Comparison and calibration of microbial power generation by utilizing biowaste	0.05
11	TNSCST	2005		Bio degradation of PAH by oil degrading	0.05

				bacteria	
12	TNSCST	2007	2008	Comparative study on cyclosporine production by actinomycetes in liquid state and solid state conditions	0.05
13	TNSCST	2009	2010	A decolourization study of textile dye using ligninolytic enzyme of basidiomycetes fungi	0.05
14	TNSCST	2010	2011	Biohydrogen production by using keratin degraded effluent	0.05
15	TNSCST	2012	2013	Carbon sequestration (Flue gas utilisation) biohydrogen and biodiesel production using algal isolates	0.1
16	TNSCST	2017	2018	Assessment of Various pretreatment methods for enhanced biohydrogen production utilizing various industrial wastes	0.1
17	TNSCST	2018	2019	Biohydrogen and bioplastic (PHB) production from dairy industry wastewater by phototrophic bacteria	0.075

Distinctive Achievements / Awards

1. Young scientist award – DST-SERB-YSS-2013
2. Radio talk - About microbial Power generation in AIR- Madurai on 13.12.2004.
3. Travel grant (Rs 1, 17,383/- by DBT (DBT/CTEP/02/201600307 dated Apr 1, 2016) to attend International Conference on Environmental science and Technology. Paper title: Anaerobic and subsequent photosynthetic process for biohydrogen and Bioplastic (PHB) production at Houston, US, American academy of sciences, Texas, Houston, USA; June 06-10, 2016.

4. Travel grant (Rs10,000/-) by Centre for International Co-operation in Science (CICS) – (DO\Lr.\TF-V\2015-16 dated 3.2.16) to attend 5th annual International Conference on sustainable energy and environmental sciences-2016 (SEES 2016) at Singapore organized by Global science and technology forum, Singapore (GSTF); 22– 23Feb, 2016.
5. Dr. APJ Abdul Kalam Award for scientific excellence -2018 by Marina Labs, Chennai, Tamilnadu, India on 13.10.18.
6. Travel grant (Rs1,00,000/-) by Alagappa University under RUSA 2.0 scheme to present a research paper at Sixth International Symposium Frontiers in Polymer Science organized by Elsevier Publications and Materials today at Budapest, Hungary on May 05-08th 2019.
7. Travel grant (Rs1,95,400/-) by Alagappa University under RUSA 2.0 scheme to for visiting the collaborating SPARC PI Institution and to give Invited lecture at Tianjin University, Tianjin, China from 25.10.2019 to 04.11.2019.

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 24

1. International – 08
2. National – 07
3. State level – 08
4. Regional/others – 01

Events Participated

Conferences / Seminars / Workshops: 58

Overseas Exposure / Visits

1. Visited Singapore to present a research paper in 5th annual International Conference on sustainable energy and environmental sciences-2016 (SEES 2016) at Singapore organized by Global science and technology forum, Singapore (GSTF); 22– 23Feb, 2016.

2. Visited America to present a research paper in International Conference on Environmental science and Technology. Paper title: Anaerobic and subsequent photosynthetic process for biohydrogen and Bioplastic (PHB) production at Houston, US, American academy of sciences, Texas, Houston, USA; June 06-10, 2016.
3. Visited Hungary to present a research paper in Sixth International Symposium Frontiers in Polymer Science organized by Elsevier Publications and Materials today at Budapest, Hungary on May 05-08th 2019.
4. Visited China from 25.10.2019 to 04.11.2019 as SPARC PI and gave Invited lecture at Tianjin University, Tianjin, China (31.10.2019) and at Beijing Forestry University, Beijing, China (1.11.2019).

Membership in

Professional Bodies

1. Life Member: Association of Microbiologists of India (Life Membership No. 1354/2001).
2. Life Member: American Society for Microbiology (Membership ID: 56653553)
3. Life Member: South Indian Microbiologist Association (Life Membership No. SIMAMDU00040).

Editorial Board

- Guest Editor – Recent Advancements in Microbial Fuel Cells. 2022. Energies (Impact Factor 3.004).
- Guest Editor - Recent Advancements in Microbial Fuel Cells - Energies / Vol. 28 issue 26, special issue "RTB2019". From Page 33866 to 33966, Springer Publications.2020 (Impact Factor 4.223).
- Guest Editor -3rd International Conference on Recent Trends in Microbiology (RTM-2019)- Burgeoning trends in Microbiology and Agriculture Sciences - Biocatalysis and Agricultural Biotechnology – Elsevier Publications.2020.
- Blue Biotechnology Journal - Nova Science Publishers, Inc. United States of America.

- Journal of Cell Science & Molecular Biology - Open Science Publications- India- 10.8.13.
- Editor, Alagappa University Journal of Biological Sciences (AUJBS), Alagappa University, Karaikudi.
- Editorial Board Member, Multidisciplinary journal, The Thassim Beevi Abdul Kader College for Women, Kilakarai- 20.2.17.
- Editorial Board Member, **Biotechnology and Bioinformatics. Mediterranean Journals**, 16192 Coastal Hwy, Lewes, DE 19958, United States – 09.08.2021.

Resource persons in various capacities

Number of Invited / Special Lectures delivered: 45

Others

1. Articles published in Newspapers / Magazines: 0
2. No. of PhD Thesis evaluated: 09
3. No. of PhD Public Viva Voce Examination conducted: 10

Sequence submitted in GenBank: 150

Bacteria – 43; Fungi – 104; Microalgae – 2; Protein – 1

Books Editing

1. Biodegradable Polymers, Blends and Biocomposites: Trends and Applications. CRC Press Taylor and Francis Group (USA) (9781032302492).
2. Enzymes incorporated nanoparticles their fundamentals concepts, synthesis & applications, Elsevier Academic Press (The Netherlands).
3. Algae Materials. Elsevier Academic Press (The Netherlands).

Recent Publications

1. Rathinam Raja, Shanmugam Hemaiswarya, Kulandaiyesu Arunkumar, N. Mathiyazhagan, K. Sabariswaran , A. Arun and P. Ramasamy. 2023. Efficacy of *Eisenia bicyclis* phlorotannins in the treatment of diabetes and reducing

inflammation. Food Bioscience. Volume 52, April 2023, 102381 (IF- 5.318)
<https://doi.org/10.1016/j.fbio.2023.102381>

2. Thirumal. V, R. Yuvakkumar, P. Senthil Kumar, G. Ravi, A. Arun, Ramesh K. Guduru, Dhayalan Velauthapillai. 2021. Heterostructured two dimensional materials of MXene and graphene by hydrothermal method for efficient hydrogen production and HER activities. International Journal of Hydrogen Energy, ISSN 0360-3199, <https://doi.org/10.1016/j.ijhydene.2021.12.045> . (IF- 7.139).
3. Arockiya Anita Margret, S.Aishwarya, **A. Arun**, R.Jasmine. 2023. Chapter 7 - Interface of 'meta-omics' in gut biome remediation to unravel the complications of environmental pollutants. 183-206. <https://doi.org/10.1016/B978-0-323-96113-4.00024-X>
4. T. Angelin Swetha, K. Mohanrasu, Muniyasamy Sudhakar, Rathinam Raja, Kumar Ponnuchamy, Govarthanam Muthusamy, A. Arun.2022. A comprehensive review on techniques used in conversion of biomass into bioeconomy. Sustainable Energy Technologies and Assessments. Volume 53, Part C, 102682, ISSN 2213-1388, <https://doi.org/10.1016/j.seta.2022.102682> ,12.11.22. (IF- 7.632).
5. Anandhi, V., Ramesh, U., Balaji, P., Kumar, P., Muthusamy Govarthanam., **Arun, A.**, 2022. A Review on the Impact of Various Factors on Biohydrogen Production. International Journal of Hydrogen Energy. <https://doi.org/10.1016/j.ijhydene.2022.08.046> (IF 7.139).
6. Bora, A., Mohanrasu, K., Angelin Swetha, T., Ananthi, V., Sindhu, R., Nguyen Thuy Lan Chi , Pugazhendhi, A., **Arun, A.**, Mathimani, T., 2022. Microbial electrolysis cell (MEC): Working principle, reactor configurations, recent advances and strategies in biohydrogen production. Fuel. <https://doi.org/10.1016/j.fuel.2022.125269> (IF 8.035).
7. Vignesh, B.K., Muthumari, B., Kavitha, M., Praveen Kumar, J.K.J., Thavamurugan, S., **Arun, A.**, Jothi Basu, M., 2022. Studies on Optimization of Sustainable Lactic Acid Production by *Bacillus amyloliquefaciens* from Sugarcane molasses through Microbial Fermentation. Sustainability, 14, 7400. <https://doi.org/10.3390/su14127400>. (IF - 3.251).

8. Chidhambaram, M., Natchimuthu, K., Muniyandi, B., **Arun, A.**, Kheraif, A.A., Kim, W., Kumar, P., 2022. Extraction, identification, and environmental risk assessment of microplastics in commercial toothpaste. *Chemosphere*. 296: 133976. <https://doi.org/10.1016/j.chemosphere.2022.133976> (IF - 8.943).
9. Boobalan, T., Tamilmani, J., Arumugam, N., Mohan Rasu, K., Kim, W., Kumar, P., Govarthan, M., **Arun, A.**, 2022. Wastewater substrates in microbial fuel cell systems for carbon-neutral bioelectricity generation: An Overview. *Fuel*. Volume 317, 1 June 2022, 123369. DOI: <https://doi.org/10.1016/j.fuel.2022.123369> (IF 8.035).
10. Maya, M.R., Ananthi, V., **Arun, A.**, Kumar, P., Govarthan, M., Rameshkumar, R., Veeramanikandan, V., Balaji, P., 2022. Protective efficacy of *Capsicum frutescens* fruits in pancreatic, hepatic and renal cell injury and their attenuation of oxidative stress in diabetic rats. *Journal of Taibah University for Science (TUSC)*. 15:1, 1232-1243, DOI: <https://doi.org/10.1080/16583655.2021.2024998> (IF 2.688).
11. Sethupathi, M., Boobalan, T., Sengottuvelan, N., Kumar, P., Perdih, F., **Arun, A.**, Karthikeyan, M., 2021. Macrocylic “tet a”-Derived Cobalt(III) Complex with a N,N'-Disubstituted Hexadentate Ligand: Crystal Structure, Photonuclease Activity, and as a Photosensitizer. *ACS Omega*. DOI: <https://doi.org/10.1021/acsomega.1c05306> (IF 4.132).
12. Maya, M.R., Rameshkumar, K., Veeramanikandan, V., Boobalan, T., Kumar, M., Eyini, M., **Arun, A.**, Pugazhendhi, A., Balaji, P., 2022. Evaluation of Antioxidant, anti-inflammatory, and anti-hyperglycemic effects of *Wattakaka volubilis* Linn. f. *Process Biochemistry*. 112. 183–191 (IF 4.885). DOI: <https://doi.org/10.1016/j.procbio.2021.12.001>
13. Mohanrasu, K., Guru, R.R., Dinesh, G.H., Zhang, K., Sudhakar, M., Pugazhendhi, A., Jeyakanthan, J., Kumar, P., Govarthan, M., **Arun, A.**, 2021. Production and Characterization of biodegradable Polyhydroxybutyrate by *Micrococcus luteus* isolated from marine environment. *International Journal of Biological Macromolecules*. DOI: <https://doi.org/10.1016/j.ijbiomac.2021.07.029> (IF - 8.025).

14. Bora, A., Angelin Swetha, T., Mohanraasu, K., Sivaprakash, G., Balaji, P., Arun, A., 2021. Chapter 17. Microbial production of biohydrogen (BioH₂) from waste-activated sludge: Processes, challenges and future approaches. Advanced Functional Materials for Hydrogen Production, Conversion and Storage. Wiley publication. (Accepted).
15. Barik, A., Biswal, D., **Arun, A.**, Balasubramanian, V., 2021. Biodegradation of Heavy Metals Using Biofilm Bacteria. In Environmental and Agricultural Microbiology (eds B.B. Mishra, S.K. Nayak, S. Mohapatra and D. Samantaray). Pages- 39-61. 24 August 2021. ISBN:9781119526230. Scrivener Publishing LLC. DOI: <https://doi.org/10.1002/9781119525899.ch3>
16. Karthik Raja, R., Hazir, S., Govindan, R., Balasubramani, G., **Arun, A.**, 2022. Chapter 22: Green nanotechnology for the environment. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P- 461-478. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. DOI: <https://doi.org/10.1016/B978-0-12-823426-6.00006-1>
17. Angelin Swetha, T., Mohanrasu, T., Bora, A., **Arun, A.**, 2022. Chapter 20: Enzyme-incorporated nanotechnology in wastewater treatment. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P 415-438. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. DOI: <https://doi.org/10.1016/B978-0-12-823426-6.00021-8>
18. Mohanrasu, K., Guru, R.R., Sivaprakash, G., Dinesh, G.H., **Arun, A.**, 2022. Chapter 16: Microbial bio-based polymer nanocomposites for food industry applications. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P – 331- 354. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. Doi: <https://doi.org/10.1016/B978-0-12-823426-6.00012-7>
19. Sivaprakash, G., Mohanrasu, K., Dinesh, G.H., **Arun, A.**, 2022. Chapter 15: Microbial nanotechnology in food Industry: Antimicrobial packaging. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P 311-329. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. DOI: <https://doi.org/10.1016/B978-0-12-823426-6.00002-4>

20. Bora, A., Mohanrasu, K., Angelin Swetha, T., **Arun, A.**, 2022. Chapter 21: Microbes incorporated nanomaterials for water purification. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P- 439-459. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. DOI: <https://doi.org/10.1016/B978-0-12-823426-6.00001-2>
21. Ananthi, V., Mohanrasu, K., Dinesh, G.H., **Arun, A.**, 2022. Chapter 17: Pathogen identification through surface marker recognition methods. In Handbook of Microbial Nanotechnology. (Ed. Chaudhery Hussain). P-415-438. ISBN: 9780128234266, Academic Press, Publishing Date: March 2022. DOI: <https://doi.org/10.1016/B978-0-12-823426-6.00014-0>
22. Karthik Raja, R., Nguyen-Tri, P., Balasubramani, G., **Arun, A.**, Hazir, S., Ladhari, S., Saidi, A., Pugazhendhi, A., Anthoni Samy, A., 2021. SARS-CoV-2 and its new Variants: A Comprehensive Review on Nanotechnological Application Insights into Potential Approaches. Applied Nanoscience. DOI: <https://doi.org/10.1007/s13204-021-01900-w> **(IF - 3.869)**.
23. Nguyen, V.H., Prema, P., Boobalan, T., Arun, A., Ramesh Kumar, K., Suresh Babu, R., Veeramanikandan, V., Balaji. P., 2022. Green tea mediated synthesis of gold nanoparticles with potent anti-proliferative effect against PC-3 human prostate cancer cells. Materials Letters. DOI: <https://doi.org/10.1016/j.matlet.2021.130882> **(IF - 3.574)**.
24. Arumugam, N., Boobalan, T., Pugazhendhi, A., **Arun, A.**, Jothi Basu, M., , Suganya Devi, T., Kavitha, T., 2021. Particle size influence on the composition of sugars in corncob hemicellulose hydrolysate for xylose fermentation by *Meyerozyma caribbica*. Bioresource Technology, Volume 340, 125677, ISSN 0960-8524, <https://doi.org/10.1016/j.biortech.2021.125677> **(IF - 11.889)**.
25. Premnath. N, Mohanrasu, K., Guru Raj Rao, R., Dinesh, G.H., Siva Prakash, G., Ananthi, V., Kumar, P., Govarthanan, M., **Arun, A.**, 2021. A Crucial Review on Polycyclic Aromatic Hydrocarbons - Environmental Occurrence and Strategies for Microbial Degradation. Chemosphere. DOI: [10.1016/j.chemosphere.2021.130608](https://doi.org/10.1016/j.chemosphere.2021.130608) **(IF - 8.943)**.

26. Ananthi, V., Balaji, P., Sindhu, R., Kim, S.H., Pugazhendhi, A., **Arun, A.**, 2021. A critical review on different harvesting techniques for algal based biodiesel production. *Science of the Total Environment*. 78; 146467 DOI: <https://doi.org/10.1016/j.scitotenv.2021.146467> (IF - 10.753).
27. Saravanan, S., Nalluchamy, K.D., Arumugam, N., Boobalan, T., Jayabalan, M., Jothi Basu M., **Arun A.**, Muthuchelian K., 2021. In situ conservation of endangered tree species (*Elaeocarpus venustus* Bedd.) habitated in Agasthiyamalai Biosphere Reserve, Southern Western Ghats, India. *Environmental Science and Pollution Research*. DOI: <https://doi.org/10.1007/s11356-021-13227-8> (IF - 5.190).
28. Saravanan, S., Kamala Dhasan, N., Sudha, A., Chandrasekaran, S., Boobalan, T., Satheesh Murugan, R., **Arun, A.**, Jothi Basu, M., 2021. Studies on the influence of natural resource utilization by humans on foraging behavior of honey bees at rural ecosystems. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-021-13192-2> (IF - 5.190).
29. Boobalan, T., Tamilmani, J., Sethupathi, M., Kim, W., Sudhakar, M., Sengottuvelan, N., Samsudeen, N., Kumar, P., **Arun, A.**, 2021. Bioelectricity Generation by Natural Microflora of Septic Tank Wastewater (STWW) and Biodegradation of Persistent Petrogenic Pollutants by Basidiomycetes Fungi: An Integrated Microbial Fuel Cell System. *Journal of Hazardous Materials*. Volume 412, 25228, ISSN 0304-3894. <https://doi.org/10.1016/j.jhazmat.2021.125228> (IF - 14.224).
30. Mohanrasu, K., Rao, R.G.R., Sudhakar, M., Raja, R., Jeyakanthan, J., **Arun, A.** 2020. Marine Microbial Pharmacognosy: Prospects and Perspectives. In: Nathani N.M., Mootapally C., Gadhvi I.R., Maitreya B., Joshi C.G. (eds) *Marine Niche: Applications in Pharmaceutical Sciences*. Springer, Singapore. https://doi.org/10.1007/978-981-15-5017-1_5 . ISBN 978-981-15-5016-4
31. Premnath. N, Mohanrasu, K., Guru Raj R.R., Dinesh, G.H., Siva Prakash, G., Pugazhendhi, A., Jeyakanthan, J., Govarthanan, M., Kumar, P., **Arun, A.**, 2020. Effect of C/N Substrates for enhanced Extracellular Polymeric Substances (EPS) Production and Poly Cyclic Aromatic Hydrocarbons (PAHs) degradation. *Environmental*

Pollution. 116035, ISSN 0269-7491 DOI:
<https://doi.org/10.1016/j.envpol.2020.116035> (IF - 9.988).

32. Shanmugam, S., Mathimani, T., Rene, E.R., Edwin Geo, V., **Arun, A.**, Brindhadevi, K., 2021. Biohythane production from organic waste: Recent advancements, technical bottlenecks and prospects. International Journal of Hydrogen Energy. ISSN 0360-3199 <https://doi.org/10.1016/j.ijhydene.2020.10.132> (IF: 7.139).
33. Karthik Raja, R., **Arun, A.**, Touray, M., Gulsen, S.H., Cimen, H., Gulcu, B., Hazir, C., Aiswarya, D., Ulug, D., Cakmak, I., Kaya, H.I., Hazir, S., 2021. Antagonists and defense mechanisms of entomopathogenic nematodes and their mutualistic bacteria. Biological Control. Volume 152, 104452, ISSN 1049-9644, <https://doi.org/10.1016/j.biocontrol.2020.104452> (IF - 3.857).
34. Ananthi, V., Pugazhendhi, A., **Arun, A.**, 2020. Efficacy of chemical factors on production and extraction of biodiesel by Microalgae. International Journal of Energy Research. DOI: <https://doi.org/10.1002/er.6097> (IF - 5.164).
35. Mohanrasu, K., [Guru Raj Rao](#), R., Rathinam, R., **Arun, A.**, 2020. Bioremediation Process by Marine Microorganisms. In book: Encyclopedia of Marine Biotechnology. [Se-Kwon Kim](#) (Ed.). Wiley-Blackwell. ISBN: 978-1-119-14377-2. <https://doi.org/10.1002/9781119143802.ch100>
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