
Curriculum Vitae

(I) Personal Information

Name: Ruey-An Doong

Birth date: 1964/08/19

Position: Chair Professor

Affiliation: Institute of Analytical and Environmental Sciences,
National Tsing Hua University.

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(II) EDUCATION

June 1992 Ph.D. Environmental Engineering National Taiwan University

June 1987 B.S. Environmental Engineering National Chung Hsing University

(III) POSITIONS HELD

- 2020/01 – now Convener, Program of Environmental Engineering, Ministry of Science and Technology (MOST), Taiwan.
- 2019/01 – now Dean, Tsing Hua International College, National Tsing Hua University.
- 2019/08 – now Chair Professor, Institute of Analytical and Environmental Sciences, National Tsing Hua University.
- 2019/08 – now Director, Center for Energy and Environmental Research, National Tsing Hua University.
- 2018/05 – now World Class Professor, Ministry of Education and Culture,

Indonesia.

- 2020/01 – now Visiting Adjunct Professor, Universitas Airlangga, Indonesia.
- 2020/03 – now Visiting Adjunct Professor, University of Shizuoka, Japan.
- 2018/08 – 2019/07 Distinguished Professor, Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan
- 2017/11–2018/07 Chair Professor, Institute of Environmental Engineering, National Chiao Tung University, Taiwan.
- 2015/08–2017/11 Distinguished Professor, Institute of Environmental Engineering, National Chiao Tung University, Taiwan.
- 2017/07–2017/10 Visiting Professor, Department of Civil and Environmental Engineering, University of Delaware, USA.
- 2011-2015 Dean, College of Nuclear Science, National Tsing Hua University.
- 2008-2011 Chairperson, Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan.
- 2006-2015 Professor, Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan.
- 2003-2006 Professor, Department of Atomic Science, National Tsing Hua University, Taiwan.
- 2005 Visiting professor, Department of Civil and Environmental Engineering, University of Delaware, USA.
- 2000-2001 Visiting professor, Department of Biology, University of Konstanz, Germany.
- 1998-2003 Associate professor, Department of Atomic Science, National Tsing Hua University, Taiwan.
- 1994-1998 Assistant professor, Department of Atomic Science, National Tsing Hua University, Taiwan.

(IV) HONORS AND AWARDS

- **2020 Fellow of International Association of Advanced Materials (FIAAM)**
 - **2020 The World Top 2% Scientists (Environmental Science)**
 - 2019 Ho Chin Tui Outstanding Award in the Environmental Protection Category.
 - 2018 Y.Z. Hsu Science Paper Award in the Green Science and Technology Category, Far Eastern Y.Z. Hsu Science and Technology Memorial Foundation.
 - 2016 **International Honorable Member Award of "American Academy of Environmental Engineers and Scientists"**
 - 2015 **Outstanding Research Award, Ministry of Science and Technology, Taiwan.**
 - 2006-2012 Faculty Excellence in Research Award, National Tsing Hua University
 - 2008 Outstanding Research Award, National Science Council, Taiwan.
 - 2006 Most cited paper of J. Chromatography A (Title: Determination of organochlorine pesticides and their metabolites in soil samples using headspace solid-phase microextraction)
 - 2005 Best Conference Paper Award, 2005 Annual Conference on Soil and Groundwater Contamination, Taiwan.
 - 2005 Excellence in Teaching Award, National Tsing Hua University, Taiwan.
 - 2003 Dr. Wu Da-Yu Memorial Award, National Science Council, Taiwan.
 - 2000 **Humboldtian, Alexander von Humboldt Foundation, Germany.**
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(V) RESEARCH INTERESTS

1. Environmental Nanotechnology for Energy-Saving Water and Wastewater Treatment
2. Water-Energy Nexus
3. Energy Materials for Energy Storage.
4. Photoelectrochemistry
5. Biosensors and Nanosensing technology.

(VI) JOURNAL EDITOR/EDITORIAL PANEL

Nanomaterials

Hyleion

J. Biosensor & Bioelectronics

J. Environmental and Chemical Engineering

Science of the Total Environment (Guest Editor)

Separation and Purification Technology (Guest Editor)

J. Encapsulation and Adsorption Sciences

Global Journal of Environmental Science & Technology

Guest Editor for ACS Series Books.

(VII) Plenary/Keynote/Invited speaker

No	Date	Type	Conference	Title
1	2021/12	Plenary Speaker	5th International Conference On Green Chemical Engineering and Technology (GCET 2021)	Biomass-derived graphene-like materials as the multifunctional platform for water-energy nexus applications
2	2021/11	Plenary Speaker	Malaysia Polymer International Conference (MPIC)	Polymer-based nanomaterials as a multifunctional platform for food-energy-water nexus.
3	2021/10	Plenary Speaker	7th International Conference on Environment 2021	Recent advances in graphitic carbon nitride based nanocomposites for water purification and recovery

4	2020/12	Plenary Speaker	International Conference on Biomass Utilization and Sustainable Energy 2020 (Webinar)	Biomass-derived carbon materials as a multifunctional platform for water purification and energy applications
5	2020/08	Invited speaker	Emerging Smart Materials in Applied Chemistry (ESMAC-2020) (Webinar)	Carbon-based Nanomaterials for Water Purification and Energy Applications
6	2020/01	Plenary Speaker	7th Ruhuna International Science and Technology Conference	Nanomaterials for Water Purification and Energy Applications
7	2019/09	Invited speaker	The 71st Society of Biotechnology Japan	Electric pulse induced electrochemical sensor for cancer cell detection
8	2019/08	Invited speaker	258th ACS Meeting	Mesoporous carbon nitride as a green multifunctional material for water purification
9	2019/05	Invited speaker	International Conference on Photocatalysis and Photoenergy 2019	Mesoporous graphitic carbon nitride with various dimensions for the effective photodegradation of pharmaceuticals
10	2019/03	Invited speaker	The 5th International Symposium toward the Future of Advanced Researches in Shizuoka University 2019	Graphene Quantum Dots in Biosensing and Energy Storage Devices
11	2018/10	Invited speaker	17th Edition of International Conference and Exhibition on Pharmaceutics and Novel Drug Delivery System	Multifunctional graphene quantum dots-concanavalin A@Fe ₃ O ₄ nanocomposites for targeted drug delivery and cancer cells detection
12	2018/05	Invited speaker	第十四屆海峽兩岸水處理化學研討會	Electrochemical performance of reduced graphene oxide supported bimetallic Fe/Ni nanoparticles on the efficient dechlorination of trichloroethylene.
13	2018/01	Invited speaker	ISN2A 2018 Conference	Graphene quantum dot based nanomaterials for biomedical and energy applications
14	2017/08	Invited speaker	254 th ACS Meeting	Reactivity of carbonaceous nanocomposites for water purification and recovery application

15	2017/04	Keynote speaker	2017 International Conference on Natural Studies Innovation and the Environment	Metal/Metal oxide-carbon nanohybrids for sustainably environmental applications: Water purification and recovery
16	2016/09	Plenary speaker	International Conference on Environmental Engineering and Management for Sustainable Development	Treatment of environmental micropollutants and heavy metals using multifunctional nanocomposites
17	2016/07	Invited speaker	5 th Euro Biosensors and Bioelectronics Conference	Amperometric biosensors for cancer marker detection using novel dumbbell-like metal-magnetite nanocomposites
18	2015/12	Invited speaker	Pacificchem 2015	Rapid and efficient degradation of dimethyl phthalate by ferrate/titanium dioxide composites
19	2015/04	Invited speaker	2015 Energy Materials and Nanotechnology (EMN) Meeting	Architectural design of porous carbon nanocomposites for electrochemical applications

(VIII) INTERNATIONAL COLLABORATION

No	Date	Team	Collaborative Topics
1	2005-now	University of Delaware, Prof. Chin-pao Huang	Photo(electro)chemical nanocatalysts for emerging pollutant treatment
2	2012-now	ASEAN	International Joint-Research and Training Program on Environmentally Green Technology and Sustainable Energy
3	2021-2023	Arizona State University (ASU) Prof. Paul Westhoff	Development of Low Dimensional Nanofibers for hydrogen evolution and photoelectrochemical degradation of pollutants in water and wastewater
4	2021-2023	MTEC, Thailand Dr. Chanchana	MIP-based electrochemical sensor for detection of pesticides in aqueous solutions.
5	2021-2022	KIT, Germany, Prof. Andrea I. Schäfer	Membrane-Based Water-Energy Nexus: Cutting-Edge Technology for Emerging Micropollutant Removal and Enhanced Water Recovery
6	2018-2021	Universiti Islam Indonesia (UII)	World Class Professor, Ministry of Education and Culture, Indonesia.

7	2018-2021	UTM, USM, and UniMAP, Malaysia	Center for Water Innovation and Sustainable Energy, WISE Center
8	2016-2017	Malayan College Laguna, Prof. Liza B. Patacsil	Synergistic effect of forward osmosis and capacitive deionization on water purification and recovery)
9	2013-2018	TAM U, Prof. Virender K. Sharma	Fabrication and application of ferrate in water treatment.

(IX) SUPERVISION

9-1 Supervisor of Master and Ph.D. Students

- (1) Ph.D. Student Advisor : 21 Ph.D. students including 11 Ph. D. in recent 5 years.
- (2) Master Student Advisor: 20 master students in recent 5 years.
- (3) Short-term research visiting scholars :

Country	Vietnam	Philippines	Malaysia	Thailand	Indonesia
Number	14	8	3	2	4

9-2 Student Awards

No.	Date	Name of Student	Type of Honor/Scholarship
1	2021/12	Van Dien Dang	Green Technology Paper Award, Ching-En Culture and Education Foundation
2	2021/11	Anh Kim Thi Nguyen	Best Oral Presentation Award of 5 th Annual Conference on Carbon Society of Taiwan
3	2020/12	Tseng-Kao Tsai	Green Technology Paper Award, Ching-En Culture and Education Foundation
4	2020/12	Yi-Ting Wang	Green Technology Paper Award, Ching-En Culture and Education Foundation
5	2020/11	Van Dien Dang	CTCI Scientific Scholarship
6	2020/11	Van Dien Dang	Best Oral Presentation Silver Award of 2020 International Conference on Green Electrochemical Technologies
7	2020/11	Wan-Ru Yu	Best Oral Presentation Copper Award of 2020 International Conference on Green Electrochemical Technologies
8	2020/10	Chih-Chun Chao	Best Oral Presentation Award of ICSS 2020 International Conference on Smart Sensors

9	2020/10	Van Dien Dang	Best Poster Award of ICSS 2020 International Conference on Smart Sensors
10	2018/09	Akhilesh Babu Ganganboina Ph.D.	Outstanding Oral Presentation Award of 「12 th International Symposium on Chemical-Environmental-Biomedical Technology (isCEBT)
11	2018/07	Akhilesh Babu Ganganboina	JSPS Scholarship, Japan
12	2018/09	Tzu-Hsuan Chuang	Outstanding Poster Presentation Award of the 12 th International Symposium on Chemical-Environmental-Biomedical Technology (isCEBT)
13	2017/08	Khuat Thi Thanh Huyen	Best Poster Award of the International Conference on Young Chemists 2017 (ICYC 2017)
14	2017/07	Hou-Ju Li	Best Paper Award of research competition, College of Nuclear Science, NTHU.
15	2017/02	Shen-Mu You	Elite Scholarship, Ministry of Education.
16	2016/11	Chia-Yun Fan	Green Technology Paper Award, Ching-En Culture and Education Foundation

(X) Publication List

(1) Refereed Papers

1. Nguyen, T. B.; Truong, Q. M.; Chen, C. W.; **Doong, R. A.**; Chen, W. H.; Dong, C. D. (2022) Mesoporous and adsorption behavior of algal biochar prepared via sequential hydrothermal carbonization and ZnCl₂ activation, **Bioresour. Technol.** 346, 126351.
2. Nguyen, T. B.; Ho, P. N. T.; Chen, C. W.; Huang, C. P.; **Doong, R. A.**; Dong, C. D. (2022). A Z-scheme NiCo₂O₄/S codoped 1D g-C₃N₄ heterojunction for solar-light-sensitive photocatalytic degradation of antibiotics in aqueous solutions exemplified by tetracycline. **Environ. Sci. Nano** 9, 229-242.
3. Ketwong, T.; Halabaso, E. R.; Nguyen, T. K. A.; Areeprasert, C.; **Doong, R. A.** (2022) Comparative study on pilot-scale production of CuO-loaded activated biochar and hydrochar from oil-palm empty fruit bunches for high-performance symmetric supercapacitor

- application. **J. Electroanal. Chem.** 905, 115970.
4. Nguyen, M. D.; Nguyen, T. B.; Thamilselvan A.; Nguyen, T. G.; Kuncoro, E. P.; **Doong, R. A.*** (2021). Fabrication of visible-light-driven tubular F, P-codoped graphitic carbon nitride for enhanced photocatalytic degradation of tetracycline. **J. Environ. Chem. Eng.** 10(1), 206905.
 5. Fatimah, I. Purwiandono; G. Jauhari, M. H.; Maharani, A. A. A. P.; SureshSagadevan, S. S.; Oh, W. C.; **Doong, R. A.** (2022) Synthesis and control of the morphology of SnO₂ nanoparticles via various concentrations of *Tinospora cordifolia* stem extract and reduction methods, **Arab. J. Chem.** 103738 (<https://doi.org/10.1016/j.arabjc.2022.103738>)
 6. Dega, N. K.; Ganganboina, A. B.; Tran, H. L.; Kuncoro, E. P.; **Doong, R. A.*** (2022) BSA-stabilized manganese phosphate nanoflower with enhanced nanozyme activity for highly sensitive and rapid detection of glutathione. **Talanta** 237, 122957.
 7. Adorna, J. A; Ventura, R. L. G.; Dang, V. D.; **Doong, R. A.**; Ventura, J. R. S. (2022) Biodegradable polyhydroxybutyrate/cellulose/calcium carbonate bioplastic composites prepared by heat-assisted solution casting method. **J. Appl. Polym Sci.**, 139 (7), 51645.
 8. Nguyen, A.T. K.; Kuncoro, E.P.; **Doong, R. A.*** (2022) Manganese ferrite decorated N-doped polyacrylonitrile-based carbon fiber for the enhanced capacitive deionization performance. **Electrochim. Acta** 401, 139488 <https://doi.org/10.1016/j.electacta.2021.139488>.
 9. Halabaso, E. R.; Salvacion, J. W. L.; Kuncoro, E.P.; **Doong, R. A.*** (2021). Highly efficient capacitive deionization of brackish water with manganese vanadate nanorod decorated reduced graphene oxide electrode. **Environ. Sci. Nano** 8 2844-2854.
 10. Nguyen, A.T. K.; Kuncoro, E.P.; Doong, R. A (2021) Manganese ferrite decorated N-doped polyacrylonitrile-based carbon fiber for the enhanced capacitive deionization performance. **Electrochim. Acta** (ASAP) DOI: 10.1016/j.electacta.2021.139488
 11. Sabu, A, Lin, Jui-Yen, Doong, R. A., Huang, Y. F.; Chiu, H.C. (2021) Prospects of engineered tumor-targeted nanotheranostics platform based on NIR-responsive upconversion nanoparticles. **Mater. Adv.** (ASAP) DOI: 10.1039/D1MA00563D
 12. Adorna, J. A. Jr; Ventura, R. L. G.; Dang, V. D.; Doong, R. A.; Ventura, J. R. S. (2021) Biodegradable polyhydroxybutyrate/cellulose/calcium carbonate bioplastic composites prepared by heat-assisted solution casting method. **J. Appl. Polym. Sci.** e51645 (DOI: 10.1002/app.51645)

13. Ganganboina, A. B.; Nguyen, M. D.; Nguyen, T.H.L.; Kuncoro, E. P.; Doong, R. A.* (2021). Boron and phosphorus co-doped one-dimensional graphitic carbon nitride for enhanced visible-light-driven photodegradation of diclofenac. **Chem. Eng. J.** 425, 131520.
14. You, S.M.; Wang, T. H.; **Doong, R.A.***; Millet, P.* (2021) PEC water splitting using mats of calcined TiO₂ rutile nanorods photosensitized by a thin layer of Ni-benzene dicarboxylic acid MOF. **Electrochim. Acta** 393, 139014 (<https://doi.org/10.1016/j.electacta.2021.139014>)
15. Tran, H. L.; W. Darmanto; **Doong, R. A.*** (2021). Ultra-sensitive electrochemical immunosensor for the detection of attomolar prostate specific antigen using sulfur-doped graphene quantum dots decorated gold nanostar, **Electrochim. Acta**, 389, 138700. <https://doi.org/10.1016/j.electacta.2021.138700>
16. Md. Asadul Islam, M. D.; Ong, H. L.*; Villagrancia, A. R.; Halim, K. A.; Ganganboina, A. B.; **Doong, R. A.** (2021). Biomass-derived cellulose nanofibrils membrane from rice straw as sustainable separator for high performance supercapacitor, **Ind. Crop Prod.** 170, 113694. <https://doi.org/10.1016/j.indcrop.2021.113694>
17. S. Hayaza; Wahyuningsih, S.P.A.; Kuncoroningrat Susilo, R.J.K.; Husen, S.A.; Winarni, D.; Doong, R.A.; Darmanto, W. (2021) Dual role of immunomodulation by crude polysaccharide from okra against carcinogenic liver injury in mice. **Heliyon** 7, e06183.
18. Fatimah, I.; Ardianti, S.; Sahroni, I.; Purwiandono, G.; Sagadevan, S.; **Doong, R.A.** (2021) Visible light sensitized porous clay heterostructure photocatalyst of zinc-silica modified montmorillonite by using tris (2,2'-bipyridyl) dichlororuthenium. **Appl. Clay Sci.** 204, 106023
19. Ganganboina, A. B.; Dega, N. K; Tran, H. L.; Darmanto, W.; **Doong, R. A.*** (2021). Application of sulfur-doped graphene quantum dots@gold-carbon nanosphere for electrical pulse-induced impedimetric detection of glioma cells. **Biosens. Bioelectron.** 181, 113151.
20. Van Dien Dang, V.D.; Adorna J. Jr; Annadurai, T.; Bui, T. A. N. Tran, H. L.; Lin, L. Y.; **Doong, R. A.*** (2021) Indirect Z-scheme nitrogen-doped carbon dot decorated Bi₂MoO₆/g-C₃N₄ photocatalyst for enhanced visible-light-driven degradation of ciprofloxacin. **Chem. Eng. J.** 422 130103.
21. Diah Purwaningsari, D.; Nugraha J.; Wahyuningsih, S. P. A.; Hayaza, S.; Susilo, R. J. K.; Punnapayak, H.; **Doong, R. A.**; Darmanto A. (2021) Immunomodulating effect of polysaccharide krestin from cariolus versicolor grown in Indonesia against rheumatoid

- arthritis in rat. **Res. J. Pharm. Technol.** 14(3), 1360-1364.
22. Paragas, L. K. B.; Dang, V. D.; Sahu, R. S.; de Luna, M. D. G.*; Pimentel, J. A. I.; Doong, R. A.* (2021). Enhanced visible-light-driven photocatalytic degradation of acetaminophen over CeO₂/I, K-codoped C₃N₄ heterojunction with tunable properties in simulated water matrix. **Sep. Purif. Technol.** 272, 1175677 (doi.org/10.1016/j.seppur.2020.117567).
 23. Mamaril, G. S. S.; de Luna, M. D. G.*; Bindumadhavan, K.; Ong, D. C.; **Doong, R. A.*** (2021). Nitrogen and fluorine codoped 3-dimensional reduced graphene oxide architectures as high performance electrode material for capacitive deionization of copper ions. **Sep. Purif. Technol.** 272, 117559 (doi.org/10.1016/j.seppur.2020.117559).
 24. You, S. M.; El Roubay, W. M. A.; Assaud, L.; Doong, R. A.*; Millet, P.* (2021). Water photo-electrooxidation using mats of TiO₂ nanorods, surface sensitized by a metal organic framework of nickel and 1,2-benzene dicarboxylic acid. **Hydrogen** 2(1), 58-75.
 25. Fatimah, I.; Fadillah, G.; Sahroni, I.; Kamari, A.; Sagadevan, S.; Doong, R. A. (2021) Nanoflower-like composites of ZnO/SiO₂ synthesized using bamboo leaves ash as reusable photocatalyst. **Arab. J. Chem.** 14, 102973.
 26. Viet, H. T.; Anh, N. T. N.; Doong, R. A. (2021) Erbium-doped graphene quantum dots with up- and down-conversion luminescence for effective detection of ferric ions in water and human serum. **Sens. Actuator B Chem.** 328, 129056
 27. Oliveros, A. P.; Pimentel, J. A. I.; de Luna, M. D. G.*; Garcia-Segura, S.; Abarca, R. R. M.; Doong, R. A.* (2021). Visible-light photocatalytic diclofenac removal by tunable vanadium pentoxide/boron-doped graphitic carbon nitride composite. **Chem. Eng. J.** 403, 126213. <https://doi.org/10.1016/j.cej.2020.126213>
 28. Nguyen, T. B.; Huang, C. P.; **Doong, R. A.**; Chen, C. W.; Dong, C. D. (2021). CoO-3D ordered mesoporous carbon nitride (CoO@mpgCN) composite as peroxy monosulfate activator for the degradation of sulfamethoxazole in water. **J. Hazard. Mater.** 401, 123326. <https://doi.org/10.1016/j.jhazmat.2020.123326>.
 29. Sahu, R. S.; **Doong, R. A.*** (2020) Functionalized Fe/Ni@g-C₃N₄ nanostructures for the enhanced trichloroethylene dechlorination and successive oxygen reduction reaction activity. **Environ. Sci. Nano** 7, 3469-3481.
 30. Ganganboina, A. B.; Chowdhury, A. D.; Khoris, I. M.; **Doong, R. A.**; Li, T. C.; Hara, T.; Abe, F.; Suzuki, T.; Park, E. Y. (2020) Hollow magnetic-fluorescent nanoparticles for dual-

- modality virus detection, **Biosens. Bioelectron.** 170, 112680.
31. Tran, H. L.; Darmanto, W.; **Doong, R. A.*** (2020). Ultrasensitive detection of tetracycline of B, N-codoped graphene quantum dots from natural product as the paper-based nanosensing probe in difference matrices. **Nanomaterials**, 10, 1883.
 32. Bui, T. A. N.; Nguyen, T. G.; Darmanto, W.; **Doong, R. A.*** (2020). 3-Dimensional ordered reduced graphene oxide embedded with N-doped graphene quantum dots for high performance supercapacitors. **Electrochim. Acta** 361, 137018.
 33. Pahari, S. K.; **Doong, R. A.*** (2020). Few-Layered Phosphorene-Graphitic Carbon Nitride Nanohetero-structure as Metal Free Photocatalyst for C-H Activation Reaction. **ACS Sustain. Chem Eng.**, 8(35), 13342-13351.
 34. You, S. M.; El Rouby, W. M. A.; Thamilselvan, A.; Tsai, C. K.; Darmanto, W.; **Doong, R. A.***; Millet, P.* (2020). Fe/Ni bimetallic organic framework deposited on TiO₂ nanotube array for enhancing higher and stable photoelectrochemical activity of oxygen evaluation reaction, **Nanomaterials**, 10, 1866.
 35. Ganganboina, A. B.; Park, E. Y.; **Doong, R. A.*** (2020) Boosting the energy storage performance of V₂O₅ nanosheets by intercalating conductive graphene quantum dots. **Nanoscale** 12, 16944-16955. DOI: 10.1039/D0NR04362A
 36. Adorna, J. Jr*; Borines, M.; Dang, V. D.; **Doong, R. A.*** (2020) Coconut shell derived activated biochar–manganese dioxide nanocomposites for high performance capacitive deionization. **Desalination** 492, 114602
 37. You, S. M.; Tasi, C. K.; Millet, P.; **Doong, R. A.*** (2020). Electrochemically capacitive deionization of copper (II) using 3D hierarchically reduced graphene oxide architectures. **Sep. Purif. Technol.** 251, 117368. <https://doi.org/10.1016/j.seppur.2020.117368>
 38. Dang, V. D.; Ganganboina, A. B.; **Doong, R. A.*** (2020). Bipyridine and copper functionalized N-doped carbon dots for fluorescence turn off-on detection of ciprofloxacin. **ACS Appl. Mater. Interfaces.** 12, 32247-32258. <https://dx.doi.org/10.1021/acsami.0c04645>.
 39. Adorna, J.; Aleman, C. K.; Gonzaga, I. L.; Pangasinan, J.; Sisican, K. M.; Dang, V. D.; Doong, R. A.; Ruby Lynn Ventura, R. L.; Ventura, J. R. (2020) Effect of lauric acid on the thermal and mechanical properties of polyhydroxybutyrate (PHB)/starch composite biofilms. **Int. J. Polym. Sci.**, 2020, 7947019.
 40. Bautista-Patacsil, L.; Lazarte, J. P. L.; Dipasupil, R. C. D.; Pasco, G. Y.; Eusebio, R. C.;

- Orbecido, E. A.; **Doong, R. A.** (2020) Deionization utilizing reduced graphene oxide-titanium dioxide nanotubes composite for the removal of Pb^{2+} and Cu^{2+} . **J. Environ. Chem. Eng.** 8(4) 103063.
41. Ramachandran, P.; Lee, C. Y.; **Doong, R. A.**; Oon, C. E.; Thanh, N. T. K.; Lee, K. L. (2020) A titanium dioxide/nitrogen-doped graphene quantum dots nanocomposite to mitigate Cytotoxicity: synthesis, characterization, and cell viability evaluation. **RSC Adv.** 10, 21795.
42. Ganganboina, A. B.; **Doong, R. A.*** (2020). Nitrogen doped graphene quantum dots-decorated earth-abundant nanotubes for enhanced capacitive deionization. **Environ. Sci. Nano.** 7, 228 – 237.
43. Nguyen, T. B.; Huang, C. P.; **Doong, R. A.**; Chen, C. W.; Dong, C. D.* (2020). Visible-light photodegradation of sulfamethoxazole (SMX) over Ag-P-codoped g- C_3N_4 (Ag-P@UCN) photocatalyst in water, **Chem. Eng. J.** 384, 123383.
44. Fatimah, I.*; Sahroni, I.; Muraza, O.; **Doong, R. A.** (2020). One-pot biosynthesis of SnO_2 quantum dots mediated by *Clitoria ternatea* flower extract for photocatalytic degradation of rhodamine B. **J. Environ. Chem. Eng.** 8(4), 103879.
45. Babakhani, P.*; Bridge, J.; Fagerlund, F.; **Doong, R. A.**; Whittle, K. (2019) Comparison of a novel chain-reaction model 1 with population-balance model for early- and late-aggregation of shattered graphene oxide nanoparticles. **Colloids Surf. A.** 582, 123862.
46. Tsai, C. K.; Lee, N. T.; Huang, G. H.; Suzuki, Y.; **Doong, R. A.*** (2019) Simultaneous recovery of display panel waste glass and wastewater boron by chemical oxo-precipitation with fluidized-bed heterogeneous crystallization. **ACS Omega**, 4, 14057-14066.
47. Nguyen, T. N. A.; Chang, P.Y.; **Doong, R. A.*** (2019). Sulfur doped graphene quantum dots as a fluorescence sensing probe for highly sensitive and selective detection of 4-nitrophenol in water and wastewater. **RSC Advances**, 9, 26588-26597.
48. Tran, H L.; **Doong, R. A.*** (2019) Sustainable fabrication of green luminescent sulfur-doped graphene quantum dots for rapidly visual detection of hemoglobin. **Anal. Methods** 11, 4421-4430 (Cover story).
49. Ganganboina, A. B.; **Doong, R. A.*** (2019). Impedimetric label-free N, S-graphene quantum dots decorated gold-polyaniline nanowire immunosensor for the ultrasensitive detection of carcinoembryonic antigen. **Sci. Rep.**, 9, 7214.
50. Riyanto; Sahroni, I.; Bindumadhavan, K.; Chang, P. Y.; **Doong, R. A.*** (2019) Boron doped

- graphene quantum structure and MoS₂ nanohybrid as anode materials for highly reversible lithium storage. **Front. Chem.** 7, 116
51. De Luna, M. D. G.*; Paragasb, L. K. B.; **Doong, R. A.*** (2019) Insights into the rapid elimination of antibiotics from aqueous media by tunable C₃N₄ photocatalysts: Effects of dopant amount, coexisting ions and reactive oxygen species. **Sci. Total Environ.** 669, 1053-1061.
 52. Nguyen, T. B.; **Doong, R. A.**; Huang, C. P.; Chen, C. W.; Dong, C. D. (2019). Activation of persulfate by CoO nanoparticles loaded on 3D mesoporous carbon nitride (CoO@meso-CN) for the degradation of methylene blue (MB). **Sci. Total Environ.** 675, 531-541.
 53. Tsai, C. K.; **Doong, R. A.***; Huang, H. Y. (2019). Sustainable valorization of mesoporous aluminosilicate composite from display panel glasses waste for adsorption of heavy metal ions. **Sci. Total Environ.** 673, 337-346.
 54. Chang, P. Y.; **Doong, R. A.*** (2019). Architecture of ordered mesoporous carbon spheres@SnO₂ core satellite nanostructures for enhanced high-rate lithium storage, **J. Alloy Compd.**, 775, 214-224.
 55. Nguyen, T. B.; Huang, C. P.; **Doong, R. A.*** (2019). Enhanced catalytic reduction of nitrophenols by sodium borohydride over highly recyclable Au@graphitic carbon nitride nanocomposites. **Appl. Catal. B Environ.** 240, 337-347.
 56. Nguyen, T. B.; Huang, C. P.; **Doong, R. A.*** (2019) Photocatalytic degradation of bisphenol A over a p-n heterojunction of ZnFe₂O₄/TiO₂ under visible light. **Sci. Total Environ.** 646, 745-756.
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(2) Conference papers

1. Doong, R. A.* (2021). Biomass-derived graphene-like materials as the multifunctional platform for water-energy nexus applications. 5th International Conference On Green Chemical Engineering and Technology (GCET 2021), December 15, Melaka, Malaysia. (Plenary Speaker)
2. Toh, G.Y.; Islam, M.A., Hui Lin Ong, H. L.; Doong, R. A.* (2021) Polymer-Based Nanomaterials as a Multifunctional Platform for Food-Energy-Water Nexus Malaysia Polymer International Conference (MPIC), (Plenary, Virtual Conference), November 22-23, Kuala Lumpur, Malaysia. (Plenary Speaker)
3. Doong, R. A.* (2021). Recent advances in graphene quantum dot based nanomaterials for

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4. Doong, R. A.* (2021). Recent advances in graphitic carbon nitride based nanocomposites for water purification and recovery. 7th International Conference on Environment 2021, October 6-7, Penang, Malaysia.
 5. Dien, D. V.; Nguyen, T. B.; Nguyen, M. D.; Doong, R. A.* (2021) Recent advances in carbon-based nanomaterials for photo(electro)chemically water purification and recovery. 18th Conference on Environmental Protection and Nanotechnology, July 2, Kaohsiung, Taiwan.
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 9. Nguyen, T. B.; Doong, R. A. (2020) Highly efficient Au@3-D carbon nitride nanocomposites for ultrafast recyclable reduction of nitroarenes, 259th ACS Annual Meeting, March 22-26. Philadelphia, PA.
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 11. Saha, R. S.; Doong, R. A. (2019) Dual applications of g-C₃N₄ in Fe/Ni nanoparticles for enhanced dechlorination and successive ORR activity. Green Technologies for Sustainable Water 2019, December 1 – 4, Ho Chi Minh City, Vietnam.
 12. Ganganbiona, A. B.; Doong, R. A. (2019) Electric pulse induced electrochemical sensor for cancer cell detection. September 16-18, 71st Society of Biotechnology Japan, Okayama, Japan. (Keynote speech)
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 14. Nguyen, T. G.; Chang, P. Y.; Doong, R. A. (2019) Waste-to-energy conversion from various

- agricultural wastes for supercapacitor application. A&WMA's 112th Annual Conference & Exhibition. June 25 – 28, Quebec, Canada
15. Nguyen, T. B.; Doong, R. A. (2019) Highly recyclable Au@graphitic carbon nitride nanocomposites for the enhanced catalytic reduction of nitroarenes. 16th IWA Leading Edge Conference on Water and Wastewater Technologies, June 10 – 14, Edinburgh, UK.
 16. Huang, C. H.; Doong, R. A. (2019) Green synthesis of Cu/Cu₂O/carbon hybrid materials for the photocatalytic degradation of ciprofloxacin. 4th Green and Sustainable Chemistry, May 5 – 8, Dresden Germany.
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- 2018, June 12 – 15, Miami, FL.
25. Lee, C. H.; Doong, R. A. (2018) Enhanced dechlorination and mobilization behaviors of bimetallic iron/nickel-mesoporous silica colloids in porous media. 11th Conference on Colloid Chemistry, May 28 – 30, Eger, Hungary.
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42. Nguyen, T. B.; Doong, R. A. (2017) Enhanced visible-light-responsive photocatalytic degradation of emerging pollutants by ZnFe₂O₄/TiO₂ heterostructures, 253rd ACS Meeting,

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43. Doong, R. A. (2017) Metal/metal oxide-carbon nanohybrids for sustainably environmental applications: Water purification and recovery, 17th PSSN and 2017 International Conference on Natural Studies Innovation and the Environment (ICoNSIE 2017), April 19-21, Los Banos, Laguna, Philippines.
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45. Nguyen, T. B.; Doong, R. A. (2017) Enhanced visible-light-responsive photocatalytic degradation of organic dyes by ZnFe₂O₄/TiO₂ heterojunctions. 7th Asia-Pacific Congress on Catalysis (APCAT-7), January 17-21, Mumbai, India
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48. Tsai, C, K.; Doong, R. A.*; Lee, N. T.; Suzuki, Y. (2016). Green synthesis of multifunctional mesoporous carrier from display panel glasses wastes for recovery of boron using fluidized-bed crystallization. 2016 International Conference in Challenges in Environmental Science and Engineering (CESE-2016), 7-9 November, Kaohsiung, Taiwan.
49. Lin, F. S.; Chiang, L. F.; Tsai, H. M.; Doong, R. A.* (2016) Treatment of environmental micropollutants and heavy metals using multifunctional nanocomposites. International Conference on Environmental Engineering and Management for Sustainable Development, 15 September, Hanoi, Vietnam.
50. Doong, R. A.*; Chiang, H. C.; Lien, C. M. (2016) Quinone-mediated biological and chemical reductions of carbon tetrachloride under iron- and sulfate reducing environments. 2016 World Multidisciplinary Earth Sciences Symposium (WMESS), 4-10 September, Prague, Czech Republic.

51. Bindumadhavan K.; Saha, R. S.; Doong, R. A.* (2016) Development of molybdenum disulphide-graphene quantum dots nanostructure for electrochemical applications. 252nd ACS Meeting, 21-25 August, Philadelphia, PA.
52. Doong, R. A.*; Lin, C. S.; Bindumadhavan, K. (2016) Enhanced reactivity of metal/metal oxide-porous carbon nanocomposites for electrochemical and photocatalytic applications. 252nd ACS Meeting, 21-25 August, Philadelphia, PA.
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54. Doong, R. A.*; Chang, P. Y.; Chou, T. C. (2016) Architectural design of porous carbon nanocomposites for energy storage applications. Global Nanotechnology Congress and Expo 2016, 21-23 April, Dubai, UAE.
55. Doong, R. A.*; Parshetti, G. K.; Liao, Y. H. (2016) Sensitive amperometric biosensors for metabolites detection based on multifunctional dumbbell-like metal-magnetite heterostructures. 26th Anniversary World Congress on Biosensors, Biosensors 2016, 25-27, May, Gothenburg, Sweden
56. Doong, R. A.*; Tsou, F. J (2016), Fabrication of titanate nanotube-supported carbon-zerovalent iron nanocomposites for enhanced dechlorination of trichloroethylene. 251st ACS National Meeting, 13-17 March, San Diego, CA.
57. Lin, F. H.; Doong, R. A.* (2015). Interfacially electronic structures of gold-magnetite heterostructures for effectively reduction of nitrophenols. Pacificchem 2015, 14-20 December, Honolulu, Hawaii.
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60. Doong, R. A.*; Lin, F. H. (2015) Rapid and Complete removal of nitrophenols by heterostructured gold-magnetite nanocatalysts. 250th ACS Meeting, 16-20 August, Boston, MA.

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61. Doong, R. A.*; Tsai, Y. C. (2015) High capacitive deionization performance for ion removal using acid-treated highly ordered mesoporous carbons, EuroMed 2015, 11-14, May, Palermo, Italy.
 62. Doong, R. A.*; Liao, H. R. (2015) Photoelectrochemical water splitting for hydrogen generation on highly ordered Pt-decorated TiO₂ nanotube arrays. 3rd International Symposium on Green Chemistry, 3-7 May, La Rochelle, France.
 63. Saha, S.; Lee, C. H.; Lin, H. P.; Doong, R. A.* (2015) Mesoporous silica supported bimetallic Pd/Fe nanocomposites for enhanced reductive dechlorination of tetrachloroethylene, 249th ACS Meeting, 22-26 March, Denver, Co.