

Van-Giang Le, Ph.D.

Principal Fellow & Lecture, Central Institute for Natural Resources and Environmental Studies, Vietnam National University, Hanoi, Viet Nam.

Address: No. 19, Le Thanh Tong Road, Hanoi City, Viet Nam.

E-mail: levangiangcres@vnu.edu.vn

Place of Birth: Ho Chi Minh City, Viet Nam.

Sex: Male

<https://www.researchgate.net/profile/Van-Giang-Le/research>



Bio

Bio

The research projects at the Sustainable Energy and Resource Recovery Group focus on hydrometallurgy, mineral processing, environment and natural resources, with a specific attention to the chemical extraction and separation of critical metals. Recovering valuables from the ores alongside industrial process residues, end-of-life products, and secondary resources of the metals of interest to cut down on the primary source mining practices would be the ultimate goal of the research group. The following research streams are the main areas of concentration in the current research projects:

- Solution purification and separation of Rare Earth Elements and other critical metals from leaching liquors
- Process modification and flowsheet design for the treatment of primary sources of critical metals
- Rare Earth Elements and critical metals recycling from secondary resources (end-of-life products, pre-consumer scrap and residues, industrial waste streams).

Language

- **Vietnamese**, mother tongue
Listening/Excellent, Reading/Excellent, Writing/Excellent, Speaking/Excellent.
- **English**, second language
IELTS (Academic), 7.5 (2015)
- **Mandarin**: Basic Speaking and Listening.

Skills

- Computer: Good command of Microsoft Office™ tools (Word, Excel, PowerPoint) AutoCAD, SPSS, MapInfo.
- Communication skills: Excellent
- Organizational/managerial skills: Excellent
- Research-related skills: GC-MS/MS, TOC, XRD, FTIR, ICP-MS, Mercury analyzer, FIA.
- Other skills: Ability to work in a fast-paced environment, Management skills, Leadership skills, Ability to communicate well with people, Organize work logically.

Professional Education

❖ **Doctor of Chemical Engineering (Research) (2017-2020)**

Department of Chemical Engineering,

National Cheng Kung University (NCKU), Tainan City, Taiwan.

✚ **Thesis:** Reclaiming nitrogen, phosphorus and potassium from swine wastewater using novel sequential double-column fluidized bed homogeneous granulation process

✚ **Committee:** Dr. Chang Jo Shu, Dr. Ming Chun Lu, Dr. Chang Chien Hsiang, Dr. Chen Bing Hung, Dr. Chitsan Lin, Dr. Cheng Di Dong, Dr. Chih Hsiang Liao, Dr. Chen Feng You, Dr. Yao Hui Huang.

✚ **Supervisor:** Prof. Dr. Yao Hui Huang

Cumulative Grade Point Average (CGPA): **3.67/4.0**

❖ **Master of Science (Research) (Environmental Engineering) (2015-2017)**

Department of Marine Environmental Engineering,

National Kaohsiung Marine University (NKMU), Kaohsiung City, Taiwan.

✚ **Thesis:** Human health risk simulation and assessment of heavy metal contamination in a river affected by industrial activities

✚ **Committee:** Dr. Chitsan Lin, Dr. Yao Hui Huang, Dr. Edward Ming-Yang Wu.

✚ **Supervisor:** Prof. Dr. Chitsan Lin

Cumulative Grade Point Average (CGPA): **3.93/4.0**

❖ **Bachelor of Science (Environmental Engineering) (2010-2015)**

Department of Environmental Engineering,

Lac Hong University, Viet Nam.

✚ **Thesis:** Removal of antibiotic from hospital wastewater treatment by sponge membrane bioreactor coupled with ozonation process

✚ **Committee:** Dr. Pham Ngoc Hoa, Dr. Le Phu Dong, Dr. Le Tran Ngoc Trang.

✚ **Supervisor:** Prof. Dr. Bui Xuan Thanh

Cumulative Grade Point Average (CGPA): **3.5/4.0**

Distance Learning Certificate

- Trademarks, Industrial Designs and Geographical Indications (version 2) (World Intellectual Property Organization Scholarship)
- Basics of Patent Drafting (World Intellectual Property Organization Scholarship)

Honours & Awards

- Lien Environmental Fellowship (LEF) Award in 2023 (Singapore)
- Vietnam National University Scholarships for Outstanding Scientists in 2023.
- Vietnam National University Scholarships for Outstanding Scientists in 2022.
<https://www.vnu.edu.vn/ttsk/?C2092/N30488/31-ung-vien-dau-tien-duoc-cap-hoc-bong-cua-dHQGHN-danh-cho-nghien-cuu-sinh-va-thuc-tap-sinh-xuat-sac-.htm>
- 2020 Fall Veritas et Conscientia Scholarship Award for Existing Ph.D. Student.
<https://isad-oia.ncku.edu.tw/p/406-1066-213260,r1957.php?Lang=en>
- Third Prize–University and Industry Cooperation Taiwan Award in 2019.
<https://iace.org.tw/f2/news/showDetail;jsessionid=98E8B37FB0522EF535AE2E4595E16FAD?id=2301>
- National Cheng Kung University Distinguished International Student Scholarship 2017, 2018, 2019, and 2020.
- National Kaohsiung Marine University Scholarship, 2015, 2016, and 2017.
- Certificate of completion of training Japanese Business Culture.

Professional Experiences

- **07/2023-02/2024:** Visiting Scholar Fellow, Nanyang Environment & Water Research Institute (NEWRI), Nanyang Technological University (NTU), Singapore (advisors: Prof. Shane Allen Snyder).
https://scholar.google.com/citations?hl=en&user=s33zx3UAAAAJ&view_op=list_works&sortby=pubdate
- **09/2023-11/2023:** Visiting Scholar Fellow, Chemical Engineering Department, National Cheng Kung University (NCKU), Taiwan (advisors: Prof. Yao Hui Huang).
- **09/2022–present:** Principal Fellow, Central Institute for Natural Resources and Environmental Studies, Vietnam National University (VNU), Hanoi, Viet Nam.
<https://cres.vnu.edu.vn/en/about-cres/>
- **2021–2022:** Post–Doctoral Fellowship, Environmental Catalysis and Chemistry Lab, Institute of Analytical and Environmental Sciences, National Tsing Hua University (NTHU), Taiwan (advisors: Prof. Ruey an Doong).
<https://scholar.google.com/citations?user=g75f428AAAAJ&hl=zh-TW>
- **2020–2021:** Post–Doctoral Fellowship, Hierarchical Green Energy Material Research Center, Department of Chemical Engineering, National Cheng Kung University (NCKU), Taiwan (advisors: Prof. Hsisheng Teng).
<https://researchoutput.ncku.edu.tw/en/persons/hsisheng-teng>
- **2020–2021:** Principal Fellow, Laboratory of Advanced Materials Chemistry, Advanced Institute of Materials Science, Ton Duc Thang University (TDTU), Vietnam.
<https://aimas.tdtu.edu.vn/en>
- **2017–2020:** Research Assistant, Department of Chemical Engineering, National Cheng Kung University (NCKU), Taiwan (advisors: Prof. Yao Hui Huang).
<https://scholar.google.com/citations?user=sXv8JVAAAAAJ&hl=zh-TW>
- **2015–2017:** Research Assistant, Department of Marine Environmental Engineering, National Kaohsiung Marine University (NKMU), Taiwan (advisors: Prof. Chitsan Lin).
<https://scholar.google.co.uk/citations?user=e5VMkigAAAAJ&hl=en>
- **2014–2015:** Environmental Engineer, Formosa Industries Corporation, Vietnam.

Journal Reviewer

➤ 2023–2024:

- Journal of Energy Chemistry (IF 13.1, ISSN: 2096-885X)
- Science of the Total Environment (IF 10.753, ISSN: 0048–9697)
- Environmental Technology & Innovation (IF 7.758, ISSN: 2352-1864)
- Chemosphere (IF 8.943, ISSN: 0045–6535)
- Chemical Engineering Journal (IF 15.1, ISSN: 1385–8947)

➤ 2022–2023:

- Science of the Total Environment (IF 10.753, ISSN: 0048–9697)
- Environmental Research (IF 8.431, ISSN: 0013–9351)
- Water Research (IF 13.400, ISSN: 0043–1354)
- Process Safety and Environmental Protection (IF 7.926, ISSN: 0957–5820)
- Biosensors (IF 5.743, ISSN: 2079–6374)
- Water Science and Technology (IF 2.430, ISSN: 0273–1223)
- Chemosphere (IF 8.943, ISSN: 0045–6535)
- Environmental Technology & Innovation (IF 7.758, ISSN: 2352-1864)
- Environmental Science and Pollution Research (IF 4.223, ISSN: 0944–1344)
- Water (IF 3.530, ISSN: 2073–4441)
- Sustainability (IF 3.889, ISSN: 2071–1050)
- Diversity (IF 3.029, ISSN: 1424–2818)
- Urban Water Journal (IF 2.675, ISSN: 1744–9006)

Research & Scholarship

PROJECTS

Vietnam

1. Recovery of K-struvite from swine wastewater by homogeneous granulation in pellet reactor (VNU.2021.TTS04).
2. Recovery of lithium from lithium mining using novel fluidized bed homogeneous crystallization process (QG.23.53).
3. A study of capacitive deionization (CDI) technology in a few Vietnamese schools for treating water.
4. Develop a technology for treating sewage sludge and reclaiming nickel.

Taiwan

1. Development of material for hydrogen production and ibuprofen degradation from hospital wastewater (MOST-110-2221-E-007-058-MY3: 2022–2024).
2. Taiwan-Germany: Advanced applied materials for solid-state batteries. (MOST-109-2923-006-006: 2021–2023)
<https://researchoutput.ncku.edu.tw/en/persons/hsisheng-teng/projects/>
3. Struvite recovery from swine wastewater using fluidized bed homogeneous crystallization process (Industrial Technology Research Institute, Taiwan: 2018–2020)
4. Development of technology for boron removal from FGD wastewater produced from the coal-fired power plant (MOST-109-2622-E-006-028-CC2: 2020–2022).
<https://researchoutput.ncku.edu.tw/en/persons/yao-hui-huang/projects/>
5. Catalyst synthesis technology development and its application. (MOST 107-2218-E-006-001-MY3: 2018–2020)
<https://researchoutput.ncku.edu.tw/en/persons/yao-hui-huang/projects/>

Singapore

1. Applying a fluidized-bed crystallization process to removal and recovery of struvite from swine wastewater and potential use as a slow release fertilizer (Lien Environmental Fellowship: 2023-2025).

Teaching

COURSES

- Environmental and Human Health,
- Environmental Quality Assessment and Control,
- Environmental Technologies in the Developing World,
- Water Quality Control,
- Advanced Treatment Technology of Wastewater,

Research Interests

- Carbon Dioxides Capture and Conversion,
- Recovery of Nutrients/or Heavy Metals from Wastewater,
- Photoelectrochemical Applications,
- Composting Treatment of Organic Contaminants,
- Environmental Impact Assessment,
- Dioxin–Contaminated Soil Remediation,
- Gel Polymer Electrolytes for Lithium-Ion Battery.

Community and International Work

- Prof. Shane Allen Snyder, Nanyang Technological University of Singapore, Singapore.
- Prof. Chitsan Lin, National Kaohsiung University of Science and Technology, Taiwan.
- Prof. Yao Hui Huang, National Cheng Kung University, Taiwan.
- Prof. Ruye an Doong, National Tsing Hua University, Taiwan.
- Prof. Ming Chun Lu, National Chung Hsing University, Taiwan.
- Prof. Hui Zhang, Wuhan University, China.
- Prof. Chih-Hsiang Liao, Chia Nan University of Pharmacy and Science, Taiwan.
- Prof. Yang Lei, Southern University of Science and Technology, China.
- Prof. Yu-Jen Shih, National Sun Yat-sen University, Taiwan.
- Prof. Ngoc T. Bui, University of Oklahoma, USA.
- Prof. Md. Mofijur Rahman, University of Technology Sydney, Australia.

Publications

PUBLICATIONS

1. **Response of algae exposed to contaminants in the aquatic environment: An insight into ecotoxicology, challenges, and future perspectives**

Environmental Chemistry Letters

Van Re Le, Minh Ky Nguyen, Hoang Lam Nguyen, Van Anh Thai, **Van-Giang Le**, Asaithambi Perumal, Q. Manh Vu, Soon W. Chang, Dinh Duc Nguyen.

2023; xx (x): xxxx-xxxx

ISI, Q1, IF 13.615, ISSN: 1610-3653

Ranking 5/109 in Fuel Technology

To be submitted

2. **A review on marine macro-litter: sources, abundance, ecological impacts, potential health risks and strategic approaches for matching problems**

Environmental Chemistry Letters

Van-Giang Le; Hoang-Lam Nguyen; Minh-Ky Nguyen; Chitsan Lin; Nguyen T. Quang Hung; Akhil P. Khedulkar; Phung T. Thu Trang; A. Kumar Mungray; Dinh Duc Nguyen

2023; xx (x): xxxx-xxxx

ISI, Q1, IF 13.615, ISSN: 1610-3653

Ranking 5/109 in Fuel Technology

To be submitted

3. **Photoelectrochemical: are they emerging technology toward simultaneous H₂ production, sensing and degradation of antibiotic?**

Nature Communications

Van-Giang Le, M. Mofijur, Chi Thanh Vu, Ruyean Doong.

2023; xxx: xxx-xxx,

ISI, Q1, IF 17.69, ISSN: xxxx-xxxx,

To be submitted

4. **Unravelling enriched activity and coke resistance in methane dry reforming by incorporating lanthanum-based catalysts: current state and perspectives**

ACS Sustainable Chemistry & Engineering

M.B. Bahari, C.R. Mamat, A.A. Jalil, M. Alhassan, N.A. Roslan, **Van-Giang Le**.

2023; xxx: xxx-xxx,

ISI, Q1, IF xxx, ISSN: xxxx-xxxx,

To be submitted

5. **A cross-linked gel polymer electrolytes for high voltage and long cycle life NMC₆₂₂/lithium-ion batteries**
Nature Communications
Van-Giang Le, M. Mofijur, Chi Thanh Vu, Hsisng Teng
2023; xxx: xxx-xxx,
ISI, Q1, IF 17.69, ISSN: xxxx-xxxx,
To be submitted

6. **Fluidized bed technology for metal recovery from wastewater: current status and future potential**
Journal of Environmental Chemical Engineering
Van-Giang Le, M. Mofijur, Anh The Luu, Chi Thanh Vu, Yao Hui Huang.
2023; xxx: xxx-xxx,
ISI, Q1, IF 7.698, ISSN: xxxx-xxxx,
To be submitted

7. **Overview analysis of benefit from recovery and reuse nutrients and energy from swine wastewater**
Journal of Environmental Chemical Engineering
Van-Giang Le, M. Mofijur, Anh The Luu, Chi Thanh Vu, Yao Hui Huang.
2023; xxx: xxx-xxx,
ISI, Q1, IF 7.968, ISSN: xxxx-xxxx,
To be submitted

8. **Comparison of homogeneous and heterogeneous crystallization for K and P recovery from human urine in fluidized bed reactor**
Journal of Environmental Chemical Engineering
Van-Giang Le, M. Mofijur, Anh The Luu, Chi Thanh Vu, Yao Hui Huang.
2023; xxx: xxx-xxx,
ISI, Q1, IF 7.968, ISSN: xxxx-xxxx,
To be submitted

9. **A kinetic study of fluidized-bed homogeneous granulation of magnesite from carbon capture and storage**
ACS Sustainable Chemistry & Engineering
Van-Giang Le, M. Mofijur, Anh The Luu, Chi Thanh Vu, Yao Hui Huang.
2023; xxx: xxx-xxx,

ISI, Q1, IF 9.218, ISSN: xxxx-xxxx,

To be submitted

10. Enhance diclofenac removal in wastewater by photocatalyst process combination with hydroxyl peroxide

Case Studies in Chemical and Environmental Engineering

Van-Tung Tra, Van-Thuong Pham, Thanh-Dai Tran, Thi-Hieu Tran, **Van-Giang Le**

2023; xx (x): 100506; <https://doi.org/10.1016/j.cscee.2023.100506>

Q1, Scopus, ISSN: 2666-0164,

Ranking 23/115 in Engineering

11. Ecotoxicity of micro- and nanoplastics on aquatic algae: Facts, challenges, and future opportunities

Journal of Environmental Management

Minh Ky Nguyen, Chitsan Lin, **Van-Giang Le**, Soon W. Chang, D. Duc Nguyen

2023; 346: 118982, <https://doi.org/10.1016/j.jenvman.2023.118982>

ISI, **Q1, IF 8.7**, ISSN: 1095-8630,

Ranking 16/376 in Management, Monitoring, Policy and Law

12. A comprehensive review on ecological effects of microplastic pollution: An interaction with pollutants in the ecosystems and future perspectives

Trends in Analytical Chemistry

Minh-Ky Nguyen, Md Refat Jahan Rakib, Chitsan Lin, Nguyen Tri Quang Hung,

Van-Giang Le, Hoang-Lam Nguyen, Guilherme Malafaia, Abubakr M. Idris

2023; 168: 117294, <https://doi.org/10.1016/j.trac.2023.117294>

ISI, **Q1, IF 13.1**, ISSN: 1879-3142

Ranking 1/141 in Analytical Chemistry

13. A comprehensive review of micro- and nano-plastics in the atmosphere: Occurrence, fate, toxicity, and strategies for risk reduction

Science of the Total Environment

Van-Giang Le, Minh Ky Nguyen, Hoang Lam Nguyen, Chitsan Lin, Mohammed Hadi,

Hong Giang Hoang, Khoi Nghia Nguyen, Deyi Hou, Tao Zhang, Nanthi Bolan.

2023; xx (x): 166649, <https://doi.org/10.1016/j.scitotenv.2023.166649>

ISI, **Q1, IF 9.8**, ISSN: 1879-1026,

Ranking 7/173 in Environmental Engineering

14. Organic composts as a vehicle for the entry of microplastics into the environment: a comprehensive review

Science of the Total Environment

Van Re Le, Minh Ky Nguyen, Chitsan Lin, **Van-Giang Le**, Guilherme Malafaia.

2023; 164758, <https://doi.org/10.1016/j.scitotenv.2023.164758>

ISI, **Q1**, **IF 10.753**, ISSN: 1879-1026,

Ranking 7/173 in Environmental Engineering

15. Succession of biochar addition for soil amendment and contaminants remediation during co-composting: a state of art review

Journal of Environmental Management

Huu Tuan Tran, Nanthi S. Bolan, Chitsan Lin, The Anh Luu, **Van-Giang Le**, Cham Q. Pham, Hong Giang Hoang, Dai Viet N. Vo.

2023; 342: 118191, <https://doi.org/10.1016/j.jenvman.2023.118191>

ISI, **Q1**, **IF 8.91**, ISSN: 1095-8630,

Ranking 16/376 in Management, Monitoring, Policy and Law

16. Dynamic of microbial community in simultaneous nitrification and denitrification process: A review

Bioresource Technology Reports

Vu Van Huynh, My Thi Tra Ngo, Tomoaki Itayama, Thi Dieu Hien Vo, Thi Kim Quyen Vo, **Van-Giang Le**, Sheng-Jie You, Xuan Thanh Bui.

2023; 22: 101415, <https://doi.org/10.1016/j.biteb.2023.101415>

ISI, **Q1**, **IF 11.889**, ISSN: 2589-014X,

Ranking 37/173 in Environmental Engineering

17. Advances in Mxene-based photoanodes for water-splitting

Journal of Electroanalytical Chemistry

M.B. Bahari; A.A. Jalil; N.S. Hassan; N.F. Khusnun; M.H. Sawal; N.M. Izzudin; A.H. Hatta; M. Asmadi; T.J. Siang; S.H. Zein; **Van-Giang Le**.

2023; xx (x): 117750, <https://doi.org/10.1016/j.jelechem.2023.117750>

ISI, **Q1**, **IF 4.5**, ISSN: 1873-2569

Ranking 4/63 in Physics and Astronomy

18. Thermodynamic insight into selenium oxyanions removal from synthetic flue gas desulfurization wastewater with temperature-swing solvent extraction

Frontiers in Chemistry

Michael S. Meissner, Vy H.T. Nguyen, Imen Bousrih, Van T. Le, Alex Frickenstein,
Van-Giang Le, Ngoc T. Bui.
2023; 11: 1225843, <https://doi:10.3389/fchem.2023.1225843>
ISI, **Q1**, **IF 5.545**, ISSN: 2095-4956
Ranking 5/109 in Fuel Technology

19. Optimization process for enhancing the recovery of ammonium and phosphate from wastewater by modified rice husk biochar

Engineering and Applied Science Research
Nguyen Lan Thanh, **Van-Giang Le***, Kun Yi Andrew Lin, Nguyen Nhat Huy.
2023; 50 (2): 185-194, <https://doi.org/10.14456/easr.2023.20>.
ISI, **Q3**, **IF 1.84**, ISSN: 2539-6161.
Ranking 188/300 in General Engineering

20. Novel approach for lithium recovery from industrially lithium-containing wastewater using fluidized bed homogeneous granulation technology

ACS ES&T Water
Van-Giang Le*, M. Mofijur, Anh The Luu, Chi Thanh Vu, Yao Hui Huang.
2023; xxx: xxx-xxx,
ISI, **Q1**, **IF 5.3**, ISSN: 2690-0637,
Ranking 129/248 in Water Science and Technology

21. Investigation of biochar amendments on odor reduction and their characteristics during food waste co-composting

Science of the Total Environment
Minh Ky Nguyen, Xuan Thanh Bui, Huu Hao Ngo, **Van-Giang Le**, Huu Tuan Tran.
2023; 865: 161128, <http://dx.doi.org/10.1016/j.scitotenv.2022.161128>.
ISI, **Q1**, **IF 10.753**, ISSN: 1879-1026,
Ranking 7/173 in Environmental Engineering

22. Fluidized bed homogeneous granulation for potassium and phosphorus recovery: K-struvite release kinetics and economic analysis

Journal of the Taiwan Institute of Chemical Engineers
Van-Giang Le, The Anh Luu, Ngoc T. Bui, M. Mofijur, Chitsan Lin, Yao Hui Huang.
2023; 139: 104494, <https://doi.org/10.1016/j.jtice.2022.104494>.
ISI, **Q1**, **IF 5.477**, ISSN: 1876-1070,
Ranking 28/280 in General Chemical Engineering

23. Response to comment on “recovery of magnesium from industrial effluent and its implication on carbon capture and storage”

ACS Sustainable Chemistry & Engineering

Van-Giang Le, Dai Viet N. Vo, M. Mofijur, Yao Hui Huang, Chi Thanh Vu.
2022; 10 (48): 15619-15621, <https://doi.org/10.1021/acssuschemeng.2c06797>.

ISI, **Q1**, **IF 9.224**, ISSN: 2168–0485,

Ranking 13/280 in General Chemical Engineering

24. Screening of non-edible (second-generation) feedstocks for the production of sustainable aviation fuel

Fuel

M. Mofijur, **Van-Giang Le**, T.M Yunus Khan, Kuan Shiong Khoo.

2022; 331: 125897, <https://doi.org/10.1016/j.fuel.2022.125879>.

ISI, **Q1**, **IF 8.035**, ISSN: 1873–7153,

Ranking 10/192 in Organic Chemistry

25. ZnO nanoparticles loaded rice husk biochar as an effective adsorbent for removing reactive red 24 from aqueous solution

Materials Science in Semiconductor Processing

Yuhuan Yang, Huu Tap Van, Quang Trung Nguyen, **Van-Giang Le**.

2022; 150: 106960, <https://doi.org/10.1016/j.mssp.2022.106960>.

ISI, **Q1**, **IF 4.644**, ISSN: 1369–8001,

Ranking 84/601 in Mechanical Engineering

26. Advanced treatment technologies for the removal of organic chemical sunscreens from wastewater: a review

Current Pollution Reports

Huu Tuan Tran, Hong Giang Hoang, Xuan Thanh Bui, **Van-Giang Le**, Chitsan Lin.

2022; 158: 1-15, <https://doi.org/10.1007/s40726-022-00221-y>.

SCI, **Q1**, **IF 7.3**, ISSN: 2198–6592,

Ranking 15/237 in Water Science and Technology

27. The nitrogen cycle and mitigation strategies for nitrogen loss during organic waste composting: a review

Chemosphere

Hong Giang Hoang, Dai Viet N. Vo, Chitsan Lin, **Van-Giang Le**, Chi Thanh Vu.

2022; 300: 134514, <https://doi.org/10.1016/j.chemosphere.2022.134514>.

ISI, **Q1**, **IF 8.943**, ISSN: 0045–6535,

Ranking 14/562 in Public Health, Environmental and Occupational Health

28. Effects of storage conditions, pH and Mg:P ratio on the precipitation process for phosphate recovery from urine

Case Studies in Chemical and Environmental Engineering

Hien Vo Thi Dieu, **Van-Giang Le**, Kun Yi Andrew Lin, Xuan Thanh Bui.

2022; 5: 100188, <https://doi.org/10.1016/j.cscee.2022.100188>.

Q1, Scopus/ISSN: 2666–0164,

Ranking 23/115 in Engineering

29. Progress and challenges of contaminate removal from wastewater using microalgae biomass

Chemosphere

Shams Forruque Ahmed, M. Mofijur, **Van-Giang Le**, Hwai Chyuan Ong.

2022; 286: 131656, <https://doi.org/10.1016/j.chemosphere.2021.131656>.

ISI, **Q1, IF 8.943**, ISSN: 0045–6535,

Ranking 14/562 in Public Health, Environmental and Occupational Health

30. Soil washing for the remediation of dioxin-contaminated soil: a review

Journal of Hazardous Materials

Huu Tuan Tran, Chitsan Lin, **Van-Giang Le**, Chi Thanh Vu.

2022; 421: 126767, <https://doi.org/10.1016/j.jhazmat.2021.126767>.

ISI, **Q1, IF 14.224**, ISSN: 0304–3894,

Ranking 5/173 in Environmental Engineering

31. Recovery of magnesium from industrial effluent and its implication on carbon capture and storage

ACS Sustainable Chemistry & Engineering

Van-Giang Le, Dai Viet N. Vo, M. Mofijur, Yao Hui Huang, Chi Thanh Vu.

2022; 9: 6732-6740, <https://doi.org/10.1021/acssuschemeng.1c00754>.

ISI, **Q1, IF 9.224**, ISSN: 2168–0485,

Ranking 13/280 in General Chemical Engineering

32. Struvite recovery from swine wastewater using fluidized bed homogeneous granulation process

Journal of Environmental Chemical Engineering

Van-Giang Le, Yu Jen Shih, Chi Thanh Vu, Chih Hsiang Liao, Yao Hui Huang.

2021; 9: 105019, <https://doi.org/10.1016/j.jece.2020.105019>.

ISI, **Q1, IF 7.968**, ISSN: 2213–3437,

Ranking 23/144 in Pollution

33. Applying a novel sequential double-column fluidized bed crystallization process to the recovery of nitrogen, phosphorus, and potassium from swine wastewater

ACS ES&T Water

Van-Giang Le, Chi Thanh Vu, Yu Jen Shih, Yao Hui Huang.
2021; 1: 707–718, <https://doi.org/10.1021/acsestwater.0c00185>.
ISI, **Q1**, **IF 5.3**, ISSN: 2690–0637,
Ranking 129/248 in Water Science and Technology

34. The individual and synergistic indexes for assessments of heavy metal contamination in global rivers and risk: a review

Current Pollution Reports

Hong Giang Hoang, Chitsan Lin, Xuan Thanh Bui, **Van-Giang Le**, Long D. Nghiem.
2021; 7: 247-262, <https://doi.org/10.1007/s40726-021-00196-2>.
ISI, **Q1**, **IF 7.3**, ISSN: 2198–6592,
Ranking 15/237 in Water Science and Technology

35. Nutrients recovery from urine through struvite formation using lab-scale fluidized bed homogeneous crystallization reactor

Science & Technology Development Journal

Dang Bich Phuong, Vo Thi Dieu Hien, **Van-Giang Le**, Xuan Thanh Bui.
2021; 5: 388-397, <https://doi.org/10.32508/stdjsee.v5i2.625>.
ISSN: 2588–1078,

36. Recovery of iron and aluminum from acid mine drainage by sequential selective precipitation and fluidized bed homogeneous crystallization process

Journal of the Taiwan Institute of Chemical Engineers

Van-Giang Le, Chi Thanh Vu, Yu Jen Shih, Yao Hui Huang.
2020; 115: 135-143, <https://doi.org/10.1016/j.jtice.2020.10.007>.
ISI, **Q1**, **IF 5.876**, ISSN: 1876–1070,
Ranking 28/280 in General Chemical Engineering

37. Phosphorus and potassium recovery from human urine using a fluidized bed homogeneous crystallization process

Chemical Engineering Journal

Van-Giang Le, Chi Thanh Vu, Yu Jen Shih, Xuan Thanh Bui, Yao Hui Huang.
2020; 384: 123282, <https://doi.org/10.1016/j.cej.2019.123282>.
ISI, **Q1**, **IF 16.744**, ISSN: 1385–8947,
Ranking 3/338 in Industrial and Manufacturing Engineering

38. Highly efficient recovery of ruthenium (Ru) from integrated circuit (IC) foundry's wastewater by cementation

RSC Advances

Van-Giang Le, Chi Thanh Vu, Yu Jen Shih, Yao Hui Huang.

2019; 9: 25303-25308, <https://doi.org/10.1039/C9RA03331A>.
SCI, **Q1**, **IF 4.036**, ISSN: 2046–2069,
Ranking 63/280 in General Chemical Engineering

39. Contamination, ecological risk and source apportionment of heavy metals in sediments and water of a contaminated river in taiwan

Ecological Indicators

Van-Giang Le, Chi Thanh Vu, Yu Jen Shih, Yao Hui Huang.
2017; 82: 32-42, <https://doi.org/10.1016/j.ecolind.2017.06.008>.
ISI, **Q1**, **IF 6.263**, ISSN: 1470–160X,
Ranking 39/687 in Ecology, Evolution, Behavior and Systematics

Invited Conference/Symposium Presentations

- **Novel approach for lithium recovery from industrially lithium-containing wastewater using fluidized bed homogeneous granulation technology**

The 1st International Conference on the Practical Zero Emissions Technologies and Strategies (PZETS, Oral)

Nguyen Thi Xuan Hong, **Van-Giang Le**.

2023; Ho Chi Minh City, Viet Nam.

- **Struvite recovery from swine wastewater using fluidized bed crystallization process**

International Conference on Environmental Quality Concern (EQC, Oral)

Van-Giang Le.

2023; Tainan City, Taiwan.

- **Kinetic study of fluidized-bed homogeneous granulation of magnesite from carbon capture and storage**

Challenges in Environmental Science & Engineering (CESE, Oral)

Van-Giang Le, Yao Hui Huang.

2020; Qingdao City, China.

- **Recovery of iron and aluminum from acid mine drainage by sequential selective precipitation and fluidized bed homogeneous crystallization**

International Conference on Environmental Quality Concern (EQC, Oral)

Ha Thi Hanh, **Van-Giang Le**.

2019; Kaohsiung City, Taiwan.

- **K-struvite recovery from human urine using fluidized bed crystallization process**

International Conference on Environmental Quality Concern (EQC, Oral)

Van-Giang Le.

2019; Kaohsiung City, Taiwan.

- **Establishment of purge and trap GC/MS system for the monitoring of VOCs contaminations of surface water**

The 5th International Symposium on Environmental Analytical Chemistry Conference (ISEAC5 – Asia, Oral)

Van-Giang Le, Chitsan Lin.

2017; Ho Chi Minh City, Vietnam.

- **Human health risk implication of heavy metal contamination in fish of houjing river, Taiwan**

International Conference on Environmental Quality Concern (EQC, Oral)

Van-Giang Le, Chitsan Lin.

2017; Kaohsiung City, Taiwan.

- **Comparison of the removal of dioxins from contaminated soils employing the combination of ultra-sonification and double-blade propeller soil washing with sugarcane wine, pineapple wine, and ethanol**

Physics and Mechanics of New Materials and Their Applications Conference (PHENMA, Oral)

Van-Giang Le, Chitsan Lin.

2017; Surabaya City, Indonesia.

- **Ultrasound-assisted anaerobic compost tea washing in removing poly-chlorinated dibenzo-p-dioxins (PCDDs), dibenzo-furans (PCDFs) from medium and highly contaminated field soils**

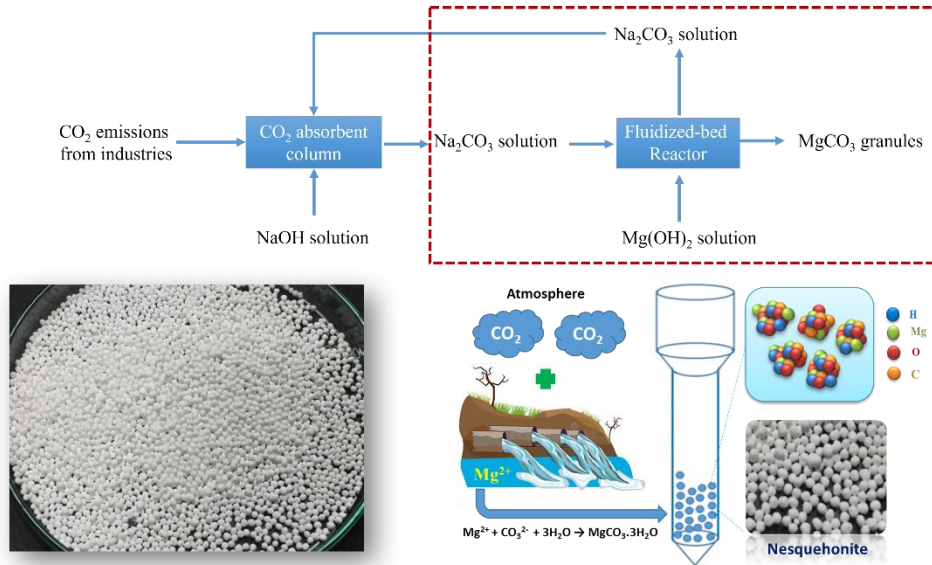
Physics and Mechanics of New Materials and Their Applications Conference (PHENMA, Oral)

Thanh Chi Vu, **Van-Giang Le**.

2017; Surabaya City, Indonesia.

Future Research Plan

CO₂ Capture and Utilization by NaOH Absorption and MgCO₃ Granulation in the Fluidized-bed Reactor

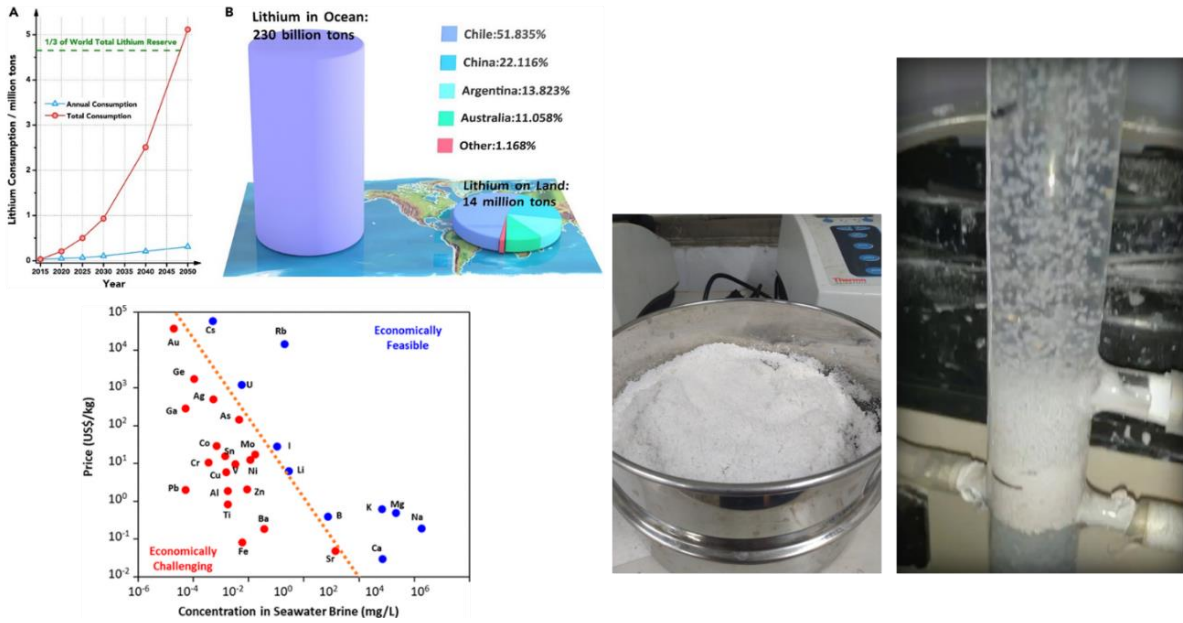


Recovery of magnetite from fluidized-bed homogeneous crystallization of iron-containing solution as photocatalyst for Fenton-like degradation of RB5 azo dye under UVA irradiation

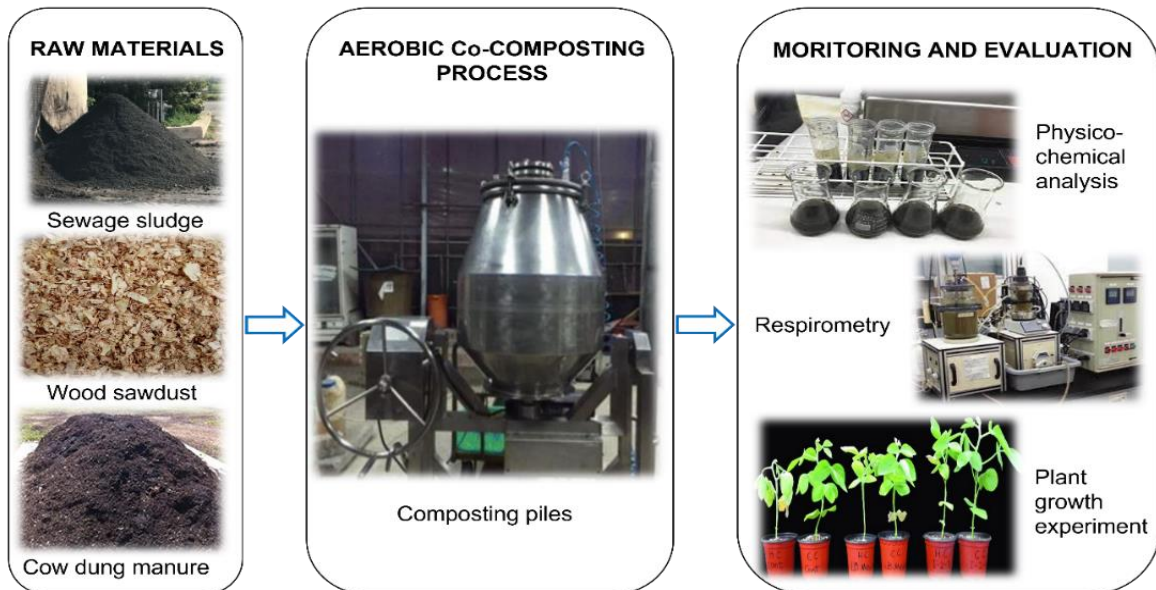
15 W UVA (365 nm)

Chemical Cocktails: Phthalate, PCBs, HBCDs, PAHs, HCHs, DDTs, BPA, PBDEs

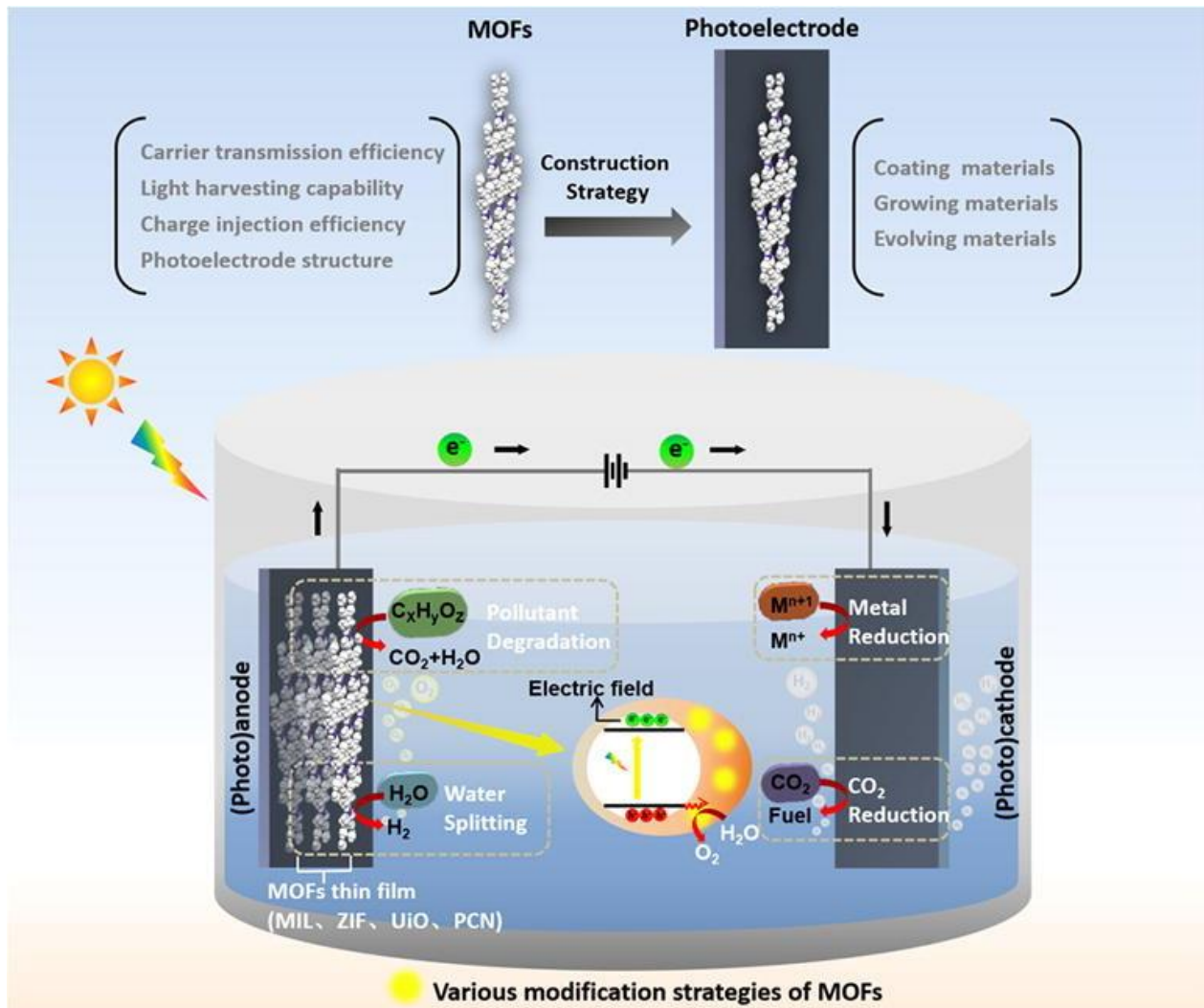
Recovery of Lithium from seawater by Fluidized Bed Reactor



Co-composting of sewage sludge, cow dung manure, and wood sawdust waste at full scale: Feasibility study to turning waste into a fertilizer product



Recovery of N, P, and K from swine wastewater by FBR



References

1. Dr. Yao Hui Huang,

Full Professor, Department of Chemical Engineering,
National Cheng Kung University (NCKU), Tainan, Taiwan.

Tel: + 886-955319011, Fax: +886-6-2344496,

E-mail: yhuang@mail.ncku.edu.tw

Home Page: <https://researchoutput.ncku.edu.tw/en/persons/yao-hui-huang>

2. Dr. Chitsan Lin,

Distinguished Professor, Department of Marine Environmental Engineering Director,
National Kaohsiung University of Science and Technology (NKUST), Kaohsiung, Taiwan.

Tel/Fax: +886-7-3651472; Mobile: +886-939904043.

Email: ctlin@nkust.edu.tw

Home page: <http://mee.nkmu.edu.tw/people/bio.php?PID=16>

3. Dr. Ming Chun Lu,

Distinguished Professor, Civil & Environmental Engineering,
National Chung Hsing University (NCHU), Taichung, Taiwan.

Tel: +886-4-22840441 Ext 537,

E-mail: mmclu@nchu.edu.tw

Home Page: <http://www.ev.nchu.edu.tw/english.asp?uno=3&c=1>

4. Dr. Chih Hsiang Liao,

Distinguished Professor, Department of Environmental Engineering and Science,
Chia Nan University of Pharmacy and Science (CNU), Tainan, Taiwan.

Tel: +886-6-266-4911 ext. 6404, E-mail: chliao@mail.chna.edu.tw

5. Dr. Bui Xuan Thanh,

Associate Professor, Faculty of Environment and Natural Resources,
Ho Chi Minh City University of Technology (HCMUT), Ho Chi Minh City, Vietnam

Tel: +84-8-3863-9682, E-mail: bxthanh@hcmut.edu.vn

Home Page: <http://www.buixuanthanh.com/home.html>

<https://scholar.google.com.vn/citations?user=qwPHsm0AAAAJ&hl=en>