

List of publications

2023 [January – December]

1. Suresh, R., Rajendran, S., Dutta, K., **Khoo, K.S.** and Soto-Moscoso, M., 2023. An overview on light assisted techniques for waste-derived hydrogen fuel towards aviation industry. *Fuel*, 334, p.126645.
2. Klahan, R., Yuangsoi, B., Whangchai, N., Ramaraj, R., Unpaprom, Y., **Khoo, K.S.**, Deepanraj, B. and Pimpimol, T., 2023. Biorefining and biotechnology prospects of low-cost fish feed on Red tilapia production with different feeding regime. *Chemosphere*, 311, p.137098.
3. Ng, Y.S., Ragupathy, S., Hwai, A.T.S., **Khoo, K.S.** and Chan, D.J.C., 2023. Evaluation of membrane fouling at elevated temperature impacted by algal organic matter. *Chemosphere*, 310, p.136790.
4. Khan, R.A., Khan, N.A., El Morabet, R., Alsubih, M., Khan, A.R., Khan, S., Mubashir, M., Balakrishnan, D. and **Khoo, K.S.**, 2023. Comparison of constructed wetland performance coupled with aeration and tubesettler for pharmaceutical compound removal from hospital wastewater. *Environmental Research*, 216, p.114437.
5. Mofijur, M., Ahmed, S.F., Rony, Z.I., **Khoo, K.S.**, Chowdhury, A.A., Kalam, M.A., Badruddin, I.A. and Khan, T.Y., 2023. Screening of non-edible (second-generation) feedstocks for the production of sustainable aviation fuel. *Fuel*, 331, p.125879.

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6. Ullah, N., Haq, F., Farid, A., Kiran, M., Al Othman, Z.A., Aljuwayid, A.M., Habila, M.A., Bokhari, A., Rajendran, S. and **Khoo, K.S.**, 2022. Coupling of carboxymethyl starch with 2-carboxyethyl acrylate: A new sorbent for the wastewater remediation of methylene blue. *Environmental Research*, p.115091.
7. Tawfik, A., Tan, X., Elsamadony, M., Qyyum, M.A., Azzam, A.M., Mubashir, M., Ng, H.S., Akhtar, M.S. and **Khoo, K.S.**, 2022. Graphene/hydroxyapatite nano-composite for enhancement of hydrogen productivity from delignified duckweed. *Fuel*, 330, p.125537.
8. Suresh, R., Rajendran, S., **Khoo, K.S.** and Soto-Moscoso, M., 2022. Enzyme Immobilized Nanomaterials: An Electrochemical Bio-Sensing and Biocatalytic Degradation Properties Toward Organic Pollutants. *Topics in Catalysis*, pp.1-16.
9. Ling, R.L.Z., Kuan, K.L., Huat, L.L., Sen, T.S., Ng, H.S., Lan, J.C.W. and **Khoo, K.S.**, 2022. Identification of microorganisms from fermented biowaste and the potential for wastewater treatment. *Environmental Research*, p.115013.
10. Chong, J.W.R., **Khoo, K.S.**, Chew, K.W., Vo, D.V.N., Balakrishnan, D., Banat, F., Munawaroh, H.S.H., Koji, I. and Show, P.L., 2022. Use of image processing and digital algorithm for microalgae identification. *Bioresour. Technol.*, p.128418.
11. Kumar, A., Mishra, S., Pandey, R., Yu, Z.G., Kumar, M., **Khoo, K.S.**, Thakur, T.K. and Show, P.L., 2022. Microplastics in terrestrial ecosystems: Un-ignorable impacts on soil characterises, nutrient storage and its cycling. *TrAC Trends in Analytical Chemistry*, p.116869.
12. Chen, B., Gu, Z., Wu, M., Ma, Z., Lim, H.R., **Khoo, K.S.** and Show, P.L., 2022. Advancement pathway of biochar resources from macroalgae biomass: A review. *Biomass and Bioenergy*, 167, p.106650.
13. Fatima, B., Bibi, F., Ali, M.I., Woods, J., Ahmad, M., Mubashir, M., Khan, M.S., Bokhari, A. and **Khoo, K.S.**, 2022. Accompanying effects of sewage sludge and pine needle biochar with selected organic additives on the soil and plant variables. *Waste Management*, 153, pp.197-208.
14. Xie, Y., **Khoo, K.S.**, Chew, K.W., Devadas, V.V., Phang, S.J., Lim, H.R., Rajendran, S. and Show, P.L., 2022. Advancement of renewable energy technologies via artificial and microalgae photosynthesis. *Bioresour. Technol.*, 363, p.127830.
15. Lee, K.M., Quek, J.D., Tey, W.Y., Lim, S., Kang, H.S., Quen, L.K., Mahmood, W.A.W., Jamaludin, S.I.S., Teng, K.H. and **Khoo, K.S.**, 2022. Biomass valorization by integrating ultrasonication and deep eutectic solvents: Delignification, cellulose digestibility and solvent reuse. *Biochemical Engineering Journal*, 187, p.108587.

16. Le Han, H., Jiang, L., Tran, T.N.T., Muhammad, N., Kim, S.G., Pham, V.P.T., Ng, Y.J., **Khoo, K.S.**, Chew, K.W. and Nguyen, T.D.P., 2022. Whole-genome analysis and secondary metabolites production of a new strain *Brevibacillus halotolerans* 7WMA2: A potential biocontrol agent against fungal pathogens. *Chemosphere*, 307, p.136004.
17. Chia, S.R., Nomanbhay, S., Milano, J., Chew, K.W., Tan, C.H. and **Khoo, K.S.**, 2022. Microwave-Absorbing Catalysts in Catalytic Reactions of Biofuel Production. *Energies*, 15(21), p.7984.
18. Sahrin, N.T., **Khoo, K.S.**, Lim, J.W., Shamsuddin, R., Ardo, F.M., Rawindran, H., Hassan, M., Kiatkittipong, W., Abdelfattah, E.A., Da Oh, W. and Cheng, C.K., 2022. Current perspectives, future challenges and key technologies of biohydrogen production for building a carbon-neutral future: A review. *Bioresource Technology*, p.128088.
19. Wu, G., Zhuang, D., Chew, K.W., Ling, T.C., **Khoo, K.S.**, Van Quyen, D., Feng, S. and Show, P.L., 2022. Current Status and Future Trends in Removal, Control, and Mitigation of Algae Food Safety Risks for Human Consumption. *Molecules*, 27(19), p.6633.
20. Kataria, N., Bhushan, D., Gupta, R., Rajendran, S., Teo, M.Y.M. and **Khoo, K.S.**, 2022. Current progress in treatment technologies for plastic waste (bisphenol A) in aquatic environment: Occurrence, toxicity and remediation mechanisms. *Environmental Pollution*, p.120319.
21. Ahmad, I., Ibrahim, N.N.B., Abdullah, N., Koji, I., Mohama, S.E., **Khoo, K.S.**, Cheah, W.Y., Ling, T.C. and Show, P.L., 2022. Bioremediation strategies of palm oil mill effluent and landfill leachate using microalgae cultivation: An approach contributing towards environmental sustainability. *Chinese Chemical Letters*, p.107854.
22. Allouzi, M.M.A., Allouzi, S., Al-Salaheen, B., **Khoo, K.S.**, Rajendran, S., Sankaran, R., Sy-Toan, N. and Show, P.L., 2022. Current advances and future trend of nanotechnology as microalgae-based biosensor. *Biochemical Engineering Journal*, p.108653.
23. Zhang, B., Chen, M., Xia, B., Lu, Z., **Khoo, K.S.**, Show, P.L. and Lu, F., 2022. Characterization and Preliminary Application of a Novel Lipoxxygenase from *Enterovibrio norvegicus*. *Foods*, 11(18), p.2864.
24. Javed, A., Hassan, A., Babar, M., Azhar, U., Riaz, A., Mujahid, R., Ahmad, T., Mubashir, M., Lim, H.R., Show, P.L. and **Khoo, K.S.**, 2022. A Comparison of the Exergy Efficiencies of Various Heat-Integrated Distillation Columns. *Energies*, 15(18), p.6498.
25. Khanra, A., Vasistha, S., Rai, M.P., Cheah, W.Y., **Khoo, K.S.**, Chew, K.W., Chuah, L.F. and Show, P.L., 2022. Green bioprocessing and applications of microalgae-derived biopolymers as a renewable feedstock: Circular bioeconomy approach. *Environmental Technology & Innovation*, p.102872.
26. Azhar, U., Ahmad, H., Shafqat, H., Babar, M., Munir, H.M.S., Sagir, M., Arif, M., Hassan, A., Rachmadona, N., Rajendran, S., Mubashir, M. and **Khoo, K.S.**, 2022. Remediation techniques for elimination of heavy metal pollutants from soil: A review. *Environmental research*, p.113918.
27. Arif, M., Babar, M., Azhar, U., Sagir, M., Tahir, M.B., Mushtaq, M.A., Yasin, G., Mubashir, M., Chong, J.W.R., **Khoo, K.S.** and Show, P.L., 2022. Rational design and modulation strategies of Mo-based electrocatalysts and photo/electrocatalysts towards nitrogen reduction to ammonia (NH₃). *Chemical Engineering Journal*, p.138320.
28. Tran, T.N.T., Truong, T.M.H., Nguyen, T.D.P., Bui, V.X., Thao, D.T., Luan, T.V., **Khoo, K.S.**, Chew, K.W. and Show, P.L., 2022. Enrichment of soy isoflavone extracts through macroporous resin for characterization of toxicity and estrogenic activities. *Journal of Food Science and Technology*, pp.1-10.
29. Ullah, Z., Khan, M., Khan, I., Jamil, A., Sikandar, U., Mehran, M.T., Mubashir, M., Tham, P.E., **Khoo, K.S.** and Show, P.L., 2022. Recent Progress in Oxidative Dehydrogenation of Alkane (C₂–C₄) to Alkenes in a Fluidized Bed Reactor Under Mixed Metallic Oxide Catalyst. *Journal of Inorganic and Organometallic Polymers and Materials*, pp.1-13.
30. Show, P.L., Chew, K.W., **Khoo, K.S.** and Tawai, A., 2022. Effective solvents for proteins recovery from microalgae. In *E3S Web of Conferences* (Vol. 355, p. 02009). EDP Sciences.
31. Satya, A.D.M., Cheah, W.Y., Yazdi, S.K., Cheng, Y.S., **Khoo, K.S.**, Vo, D.V.N., Bui, X.D., Vithanage, M. and Show, P.L., 2022. Progress on microalgae cultivation in wastewater for bioremediation and circular bioeconomy. *Environmental Research*, p.114948.
32. Rajendran, S., Priya, A.K., Kumar, P.S., Hoang, T.K., Sekar, K., Chong, K.Y., **Khoo, K.S.**, Ng, H.S. and Show, P.L., 2022. A critical and recent developments on adsorption technique for removal of heavy metals from wastewater-A review. *Chemosphere*, p.135146.

33. Selvarajoo, A., Wong, Y.L., **Khoo, K.S.**, Chen, W.H. and Show, P.L., 2022. Biochar production via pyrolysis of citrus peel fruit waste as a potential usage as solid biofuel. *Chemosphere*, 294, p.133671.
34. Thoa, L.T.K., Thao, T.T.P., Hung, N.B., **Khoo, K.S.**, Quang, H.T., Lan, T.T., Hoang, V.D., Park, S.M., Ooi, C.W., Show, P.L. and Huy, N.D., 2022. Biodegradation and Detoxification of Malachite Green Dye by Extracellular Laccase Expressed from *Fusarium oxysporum*. *Waste and Biomass Valorization*, 13(5), pp.2511-2518.
35. Dawood, S., Ahmad, M., Zafar, M., Asif, S., Klemeš, J.J., Bokhari, A., Mubashir, M., Han, N., Ibrahim, M.M., El-Bahy, Z.M. and **Khoo, K.S.**, 2022. Biodiesel synthesis from *Prunus bokhariensis* non-edible seed oil by using green silver oxide nanocatalyst. *Chemosphere*, 291, p.132780.
36. Babar, M., Munir, H.M.S., Nawaz, A., Ramzan, N., Azhar, U., Sagir, M., Tahir, M.S., Ikhlaq, A., Azmin, N.H.M., Mubashir, M. and **Khoo, K.S.**, 2022. Comparative study of ozonation and ozonation catalyzed by Fe-loaded biochar as catalyst to remove methylene blue from aqueous solution. *Chemosphere*, p.135738.
37. Toan, N.S., Phuong, N.T.D., Thuy, P.T., Dong, P.D., Gia, N.T., Thu, T.T.N., **Khoo, K.S.** and Show, P.L., 2022. Effects of burning rice straw residue on-field on soil organic carbon pools: Environment-friendly approach from a conventional rice paddy in central Viet Nam. *Chemosphere*, 294, p.133596.
38. Irshad, M.K., Ibrahim, M., Noman, A., Shang, J., Mahmood, A., Mubashir, M., **Khoo, K.S.**, Ng, H.S. and Show, P.L., 2022. Elucidating the impact of goethite-modified biochar on arsenic mobility, bioaccumulation in paddy rice (*Oryza sativa* L.) along with soil enzyme activities. *Process Safety and Environmental Protection*, 160, pp.958-967.
39. Thanigaivel, S., Priya, A.K., Kumar, P.S., **Shiong, K.K.**, Hoang, T.K., Rajendran, S. and Soto-Moscoso, M., 2022. Exploration of effective biorefinery approach to obtain the commercial value-added products from algae. *Sustainable Energy Technologies and Assessments*, 53, p.102450.
40. **Khoo, K.S.**, Ooi, C.W., Chew, K.W., Chia, S.R., Foo, S.C., Ng, H.S. and Show, P.L., 2022. Extraction of fucoxanthin from *Chaetoceros calcitrans* by electropermeabilization-assisted liquid biphasic flotation system. *Journal of Chromatography A*, 1668, p.462915.
41. Munir, H.M.S., Feroze, N., Ramzan, N., Sagir, M., Babar, M., Tahir, M.S., Shamshad, J., Mubashir, M. and **Khoo, K.S.**, 2022. Fe-zeolite catalyst for ozonation of pulp and paper wastewater for sustainable water resources. *Chemosphere*, 297, p.134031.
42. Khan, R.A., Khan, N.A., El Morabet, R., Alsubih, M., Qadir, A., Bokhari, A., Mubashir, M., Asif, S., Cheah, W.Y., Manickam, S., Klemeš, J.J. and **Khoo, K.S.**, 2022. Geospatial distribution and health risk assessment of groundwater contaminated within the industrial areas: an environmental sustainability perspective. *Chemosphere*, 303, p.134749.
43. Chia, S.R., Ahmad, M., Sultana, S., Zafar, M., Asif, S., Bokhari, A., Nomanbhay, S., Mubashir, M., **Khoo, K.S.** and Show, P.L., 2022. Green synthesis of biodiesel from *Citrus medica* seed oil using green nanoparticles of copper oxide. *Fuel*, 323, p.124285.
44. Van, J.C.F., Tham, P.E., Lim, H.R., **Khoo, K.S.**, Chang, J.S. and Show, P.L., 2022. Integration of Internet-of-Things as sustainable smart farming technology for the rearing of black soldier fly to mitigate food waste. *Journal of the Taiwan Institute of Chemical Engineers*, p.104235.
45. Ul-Haq, I., Qasim, A., Lal, B., Zaini, D.B., Foo, K.S., Mubashir, M., **Khoo, K.S.**, Vo, D.V.N., Leroy, E. and Show, P.L., 2022. Ionic liquids for the inhibition of gas hydrates. A review. *Environmental Chemistry Letters*, pp.1-24.
46. Pham, T.M., Bui, X.D., Le, T.V.K., Le, T.M., Nguyen, M.L., Trinh, D.M., Nguyen, T.D.P., **Khoo, K.S.**, Chew, K.W. and Show, P.L., 2022. Isolation of indole-3-acetic acid-producing *Azospirillum brasilense* from Vietnamese wet rice: co-immobilization of isolate and microalgae as a sustainable biorefinery. *Journal of Biotechnology*.
47. Hanbazazah, A.S., Ali, A., Alsaady, M., Yan, Y., Murshid, G., **Khoo, K.S.**, Mubashir, M., Abdulrahman, A., Ahmed, A., Mahfouz, A.B. and Alsaadi, A., 2022. Optimization and experimental analysis of sustainable solar collector efficiency under the influence of magnetic nanofluids. *Applied Nanoscience*, pp.1-12.

48. Gnanasekaran, L., Santhamoorthy, M., Naushad, M., AlOthman, Z.A., Soto-Moscoso, M., Show, P.L. and **Khoo, K.S.**, 2022. Photocatalytic removal of food colorant using NiO/CuO heterojunction nanomaterials. *Food and Chemical Toxicology*, p.113277.
49. Bibi, F., Ali, M.I., Ahmad, M., Bokhari, A., **Khoo, K.S.**, Zafar, M., Asif, S., Mubashir, M., Han, N. and Show, P.L., 2022. Production of lipids biosynthesis from *Tetrademus nygaardii* microalgae as a feedstock for biodiesel production. *Fuel*, 326, p.124985.
50. Ng, Y.J., Lim, H.R., **Khoo, K.S.**, Chew, K.W., Chan, D.J.C., Bilal, M., Munawaroh, H.S.H. and Show, P.L., 2022. Recent advances of biosurfactant for waste and pollution bioremediation: Substitutions of petroleum-based surfactants. *Environmental Research*, 212, p.113126.
51. Siddiqui, M.Z., Sheraz, M., Toor, U.A., Anus, A., Mahmood, A., Haseeb, M., Ibrahim, M., **Khoo, K.S.**, Devadas, V.V., Mubashir, M. and Ullah, S., 2022. Recent approaches on the optimization of biomass gasification process parameters for product H₂ and syngas ratio: a review. *Environment, Development and Sustainability*, pp.1-29.
52. Lim, H.R., **Khoo, K.S.**, Chia, W.Y., Chew, K.W., Ho, S.H. and Show, P.L., 2022. Smart microalgae farming with internet-of-things for sustainable agriculture. *Biotechnology Advances*, p.107931.
53. Moradi, N., Taghizadeh, S.M., Hadi, N., Ghanbariasad, A., Berenjian, A., **Khoo, K.S.**, Varjani, S., Show, P.L. and Ebrahiminezhad, A., 2022. Synthesis of mesoporous antimicrobial herbal nanomaterial-carrier for silver nanoparticles and antimicrobial sensing. *Food and Chemical Toxicology*, 165, p.113077.
54. Azhar, U., Bashir, M.S., Babar, M., Arif, M., Hassan, A., Riaz, A., Mujahid, R., Sagir, M., Suri, S.U.K., Show, P.L., Chang, J.S., **Khoo, K.S.** and Mubashir, M., 2022. Template-based textural modifications of polymeric graphitic carbon nitrides towards waste water treatment. *Chemosphere*, 302, p.134792.
55. Ahmad, I., Abdullah, N., Koji, I., Yuzir, A., Mohamad, S.E., Show, P.L., Cheah, W.Y. and **Khoo, K.S.**, 2022. The role of restaurant wastewater for producing bioenergy towards a circular bioeconomy: A review on compositions, environmental impacts, and sustainable integrated management. *Environmental Research*, p.113854.
56. Jabeen, F., Adrees, M., Ibrahim, M., Mahmood, A., Khalid, S., Sipra, H.F.K., Bokhari, A., Mubashir, M., **Khoo, K.S.** and Show, P.L., 2022. Trash to Energy: A Measure for the Energy Potential of Combustible content of Domestic solid waste generated from an industrialized city of Pakistan. *Journal of the Taiwan Institute of Chemical Engineers*, p.104223.
57. Ansar, R., Saqib, S., Mukhtar, A., Niazi, M.B.K., Shahid, M., Jahan, Z., Kakar, S.J., Uzair, B., Mubashir, M., Ullah, S. and **Khoo, K.S.**, 2022. Challenges and recent trends with the development of hydrogel fiber for biomedical applications. *Chemosphere*, 287, p.131956. [IF:7.086, Q1]
58. Leong, W.H., Saman, N.A.M., Kiatkittipong, W., Assabumrungrat, S., Najdanovic-Visak, V., Wang, J., **Khoo, K.S.**, Lam, M.K., Mohamad, M. and Lim, J.W., 2022. Photoperiod-induced mixotrophic metabolism in *Chlorella vulgaris* for high biomass and lipid to biodiesel productions using municipal wastewater medium. *Fuel*, 313, p.123052. [IF:6.609, Q1]
59. Karim, S.S., Murtaza, Z., Farrukh, S., Umer, M.A., Ali, S.S., Younas, M., Mubashir, M., Saqib, S., Ayoub, M., Bokhari, A. and Peter, A.P., **Khoo, K.S.**, 2022. Future advances and challenges of nanomaterial-based technologies for electromagnetic interference-based technologies: A review. *Environmental Research*, 205, p.112402. [IF:6.498, Q1]
60. Rafiq, S., Muhammad, N., Rehman, F., Irfan, M., Zaman, S.U., Jamil, F., Saqib, S., Mukhtar, A., **Khoo, K.S.**, Mubashir, M. and Show, P.L., 2022. Surface tuning of silica by deep eutectic solvent to synthesize biomass derived based membranes for gas separation to enhance the circular bioeconomy. *Fuel*, 310, p.122355. [IF:6.609, Q1]
61. Leong, W.H., Kiatkittipong, W., Lam, M.K., **Khoo, K.S.**, Show, P.L., Mohamad, M., Chong, S., Abdurrahman, M. and Lim, J.W., 2022. Dual nutrient heterogeneity modes in a continuous flow photobioreactor for optimum nitrogen assimilation to produce microalgal biodiesel. *Renewable Energy*, 184, pp.443-451. [IF:8.001, Q1]

62. Chan, S.S., **Khoo, K.S.**, Chew, K.W., Ling, T.C. and Show, P.L., 2022. Recent advances biodegradation and biosorption of organic compounds from wastewater: Microalgae-bacteria consortium-A review. **Bioresource Technology**, 344, p.126159. [IF:9.642, Q1]
63. Chong, J.W.R., Tan, X., **Khoo, K.S.**, Ng, H.S., Jonglertjanya, W., Yew, G.Y. and Show, P.L., 2021. Microalgae-based bioplastics: Future solution towards mitigation of plastic wastes. **Environmental Research**, p.112620. [IF:6.498, Q1]
64. Tham, P.E., Ng, Y.J., Vadivelu, N., Lim, H.R., **Khoo, K.S.**, Chew, K.W. and Show, P.L., 2021. Sustainable Smart Photobioreactor for Continuous Cultivation of Microalgae Embedded with Internet of Things. **Bioresource Technology**, p.126558. [IF:9.642, Q1]
65. Li, M., Han, N., Zhang, X., Wang, S., Jiang, M., Bokhari, A., Zhang, W., Race, M., Shen, Z., Chen, R. and Mubashir, M., **Khoo, K.S.**, 2021. Perovskite oxide for emerging Photo (electro) catalysis in energy and environment. **Environmental Research**, p.112544. [IF:6.498, Q1]

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66. **Khoo, K.S.**, Chong, Y.M., Chang, W.S., Yap, J.M., Foo, S.C., Khoiroh, I., Lau, P.L., Chew, K.W., Ooi, C.W. and Show, P.L., 2021. Permeabilization of *Chlorella sorokiniana* and extraction of lutein by distillable CO₂-based alkyl carbamate ionic liquids. **Separation and Purification Technology**, 256, p.117471. [IF: 5.774, Q1]
67. Thuy, D.T.B., Nguyen, A., **Khoo, K.S.**, Chew, K.W., Cnockaert, M., Vandamme, P., Ho, Y.C., Huy, N.D., Cocolletzi, H.H. and Show, P.L., 2021. Optimization of culture conditions for gamma-aminobutyric acid production by newly identified *Pediococcus pentosaceus* MN12 isolated from 'mam nem', a fermented fish sauce. **Bioengineered**, 12(1), pp.54-62. [IF: 3.269, Q1]
68. Yong, J.J.Y., Chew, K.W., **Khoo, K.S.**, Show, P.L. and Chang, J.S., 2020. Prospects and development of algal-bacterial biotechnology in environmental management and protection. **Biotechnology Advances**, p.107684. [IF: 14.227, Q1]
69. **Khoo K S**, Ooi C W , Chew K W , et al. Permeabilization of *Haematococcus pluvialis* and solid-liquid extraction of astaxanthin by CO₂-based alkyl carbamate ionic liquids[J]. **Chemical Engineering Journal**, 2021(4):128510. [IF: 13.273, Q1]
70. Munir M , Ahmad M , Mubashir M , **Khoo, K.S.**, et al. A practical approach for synthesis of biodiesel via non-edible seeds oils using trimetallic based montmorillonite nano-catalyst[J]. **Bioresource Technology**, 2021:124859. [IF: 9.642, Q1]
71. Chia J Y , **Khoo K S** , Ling T C , et al. Description and Detection of Excludons as Transcriptional Regulators in Gram-positive, Gram-negative and Archaeal Strains of Prokaryotes[J]. **Biocatalysis and Agricultural Biotechnology**, 2021, 32:101933.
72. Devadas V V , **Khoo K S** , Chia W Y , et al. Algae biopolymer towards sustainable circular economy[J]. **Bioresource Technology**, 2021:124702. [IF: 9.642, Q1]
73. Leong, H.Y., Chang, C.K., **Khoo, K.S.**, Chew, K.W., Chia, S.R., Lim, J.W., Chang, J.S. and Show, P.L., 2021. Waste biorefinery towards a sustainable circular bioeconomy: a solution to global issues. **Biotechnology for Biofuels**, 14(1), pp.1-15. [IF:6.485, Q1]
74. Peter, A.P., **Khoo, K.S.**, Chew, K.W., Ling, T.C., Ho, S.H., Chang, J.S. and Show, P.L., 2021. Microalgae for biofuels, wastewater treatment and environmental monitoring. **Environmental Chemistry Letters**, pp.1-14. [IF:9.027, Q1]
75. Lim, H.R., **Khoo, K.S.**, Chew, K.W., Chang, C.K., Munawaroh, H.S.H., Kumar, P.S., Huy, N.D. and Show, P.L., 2021. Perspective of *Spirulina* culture with wastewater into a sustainable circular bioeconomy. **Environmental Pollution**, p.117492. [IF: 6.792, Q1]

76. **Khoo, K.S.**, Ho, L.Y., Lim, H.R., Leong, H.Y. and Chew, K.W., 2021. Plastic waste associated with the COVID-19 pandemic: Crisis or Opportunity?. **Journal of Hazardous Materials**, p.126108. [IF: 10.558, Q1]
77. Chew, K.R., Leong, **H.Y.**, **Khoo, K.S.**, Vo, D.V.N., Anjum, H., Chang, C.K. and Show, P.L., 2021. Effects of anaerobic digestion of food waste on biogas production and environmental impacts: a review. **Environmental Chemistry Letters**, pp.1-19. [IF:9.027, Q1]
78. Lim, H.R., **Khoo, K.S.**, Chew, K.W., Chang, C.K., Munawaroh, H.S.H., Kumar, P.S., Huy, N.D. and Show, P.L., 2021. Perspective of Spirulina culture with wastewater into a sustainable circular bioeconomy. **Environmental Pollution**, p.117492. [IF: 6.792, Q1]
79. Ng, Y.J., Tham, P.E., **Khoo, K.S.**, Cheng, C.K., Chew, K.W. and Show, P.L., 2021. A comprehensive review on the techniques for coconut oil extraction and its application. **Bioprocess and Biosystems Engineering**, pp.1-12. [IF: 3.11, Q2]
80. Chong, J.W.R., Yew, G.Y., **Khoo, K.S.**, Ho, S.H. and Show, P.L., 2021. Recent advances on food waste pretreatment technology via microalgae for source of polyhydroxyalkanoates. **Journal of Environmental Management**, 293, p.112782. [IF:5.647, Q1]
81. **Khoo, K.S.**, Chia, W.Y., Wang, K., Chang, C.K., Leong, H.Y., Maaris, M.N.B. and Show, P.L., 2021. Development of proton-exchange membrane fuel cell with ionic liquid technology. **Science of The Total Environment**, p.148705. [IF: 7.963, Q1]
82. Navabshan, I., Sakthivel, B., Pandiyan, R., Antoniraj, M.G., Dharmaraj, S., Ashokkumar, V., **Khoo, K.S.**, Chew, K.W., Sugumaran, A. and Show, P.L., 2021. Computational Lock and Key and Dynamic Trajectory Analysis of Natural Biophors Against COVID-19 Spike Protein to Identify Effective Lead Molecules. **Molecular Biotechnology**, pp.1-11. [IF: 2.695, Q1]
83. Toan, N.S., Tan, X., Phuong, N.T.D., Aron, N.S.M., Chew, K.W., **Khoo, K.S.**, Thu, T.T.N., Lim, D.T., Dong, P.D., Ang, W.L. and Show, P.L., 2021. Advanced green bioprocess of soil carbohydrate extraction from long-term conversion of forest soil to paddy field. **Journal of Environmental Chemical Engineering**, p.106021. [IF: 5.909, Q1]
84. Tran, T.N.T., Phuong, N.T.D., Dinh, H.T., Tho, B.T., Han, H.L., Nguyen-Phan, T.X., **Khoo, K.S.**, Chew, K.W. and Show, P.L., Characterization of bacteria type strain Bacillus. spp isolated from extracellular polymeric substance harvested in seafood wastewater. **Journal of Chemical Technology & Biotechnology**. [IF: 3.174, Q1]
85. Thao, T.T.P., Lan, T.T.P., Phuong, T.V., Hai, T.T.H., **Khoo, K.S.**, Manickam, S., Hoa, T.T., Tram, N.D.Q., Show, P.L. and Huy, N.D., 2021. Characterization halotolerant lactic acid bacteria *Pediococcus pentosaceus* HN10 and in vivo evaluation for bacterial pathogens inhibition. **Chemical Engineering and Processing-Process Intensification**, p.108576. [IF:4.237, Q1]
86. Maqsood, K., Ali, A., Ilyas, S.U., Garg, S., Danish, M., Abdulrahman, A., Rubaiee, S., Alsadi, M., Hanbazazah, A.S., Mahfouz, A.B. **Khoo, K.S.**, and Ridha, S., 2021. Multi-objective optimization of thermophysical properties of multiwalled carbon nanotubes based nanofluids. **Chemosphere**, p.131690. [IF:7.086, Q1]
87. **Khoo, K.S.**, Chia, W.Y., Chew, K.W. and Show, P.L., 2021. Microalgal-bacterial consortia as future prospect in wastewater bioremediation, environmental management and bioenergy production. **Indian Journal of Microbiology**, pp.1-8. [IF:2.461, Q1]
88. Saravanan, A., Kumar, P.S., **Khoo, K.S.**, Show, P.L., Carolin, C.F., Jackulin, C.F., Jeevanantham, S., Karishma, S., Show, K.Y., Lee, D.J. and Chang, J.S., 2021. Biohydrogen from organic wastes as a clean and environment-friendly energy source: Production pathways, feedstock types, and future prospects. **Bioresource Technology**, p.126021. [IF:9.642, Q1]
89. Yang, J., Zhu, Q., Chai, J., Xu, F., Ding, Y., Zhu, Q., Lu, Z., **Khoo, K.S.**, Bian, X., Wang, S. and Show, P.L., 2021. Development of environmentally friendly biological algicide and biochemical analysis of inhibitory effect of diatom *Skeletonema costatum*. **Chinese Chemical Letters**. [IF:6.779, Q1]

90. Rajendran, S., Priya, T.A.K., **Khoo, K.S.**, Hoang, T.K., Ng, H.S., Munawaroh, H.S.H., Karaman, C., Orooji, Y. and Show, P.L., 2021. A critical review on various remediation approaches for heavy metal contaminants removal from contaminated soils. **Chemosphere**, p.132369. [IF:7.086, Q1]
91. Toan, N.S., Phuong, N.T.D., Thu, T.T.N., Lim, D.T., Dong, P.D., Gia, N.T., **Khoo, K.S.**, Chew, K.W. and Show, P.L., 2021. Soil mineralization as effects of plant growth promoting bacteria isolated from microalgae in wastewater and rice straw application in a long-term paddy rice in Central Viet Nam. **Environmental Technology & Innovation**, p.101982. [IF:5.263, Q1]
92. Chong, J.W., **Khoo, K.S.**, Yew, G.Y., Leong, W.H., Lim, J.W., Lam, M.K., Ho, Y.C., Ng, H.S., Munawaroh, H.S.H. and Show, P.L., 2021. Advances in production of bioplastics by microalgae using food waste hydrolysate and wastewater: A review. **Bioresource Technology**, p.125947. [IF:9.642, Q1]
93. Wang, K., **Khoo, K.S.**, Leong, H.Y., Nagarajan, D., Chew, K.W., Ting, H.Y., Selvarajoo, A., Chang, J.S. and Show, P.L., 2021. How does the Internet of Things (IoT) help in microalgae biorefinery?. **Biotechnology Advances**, p.107819. [IF:14.227, Q1]
94. **Khoo, K.S.**, 2021. Green approaches and separation techniques for the recovery of pigments from microalgae (Doctoral dissertation, University of Nottingham).
95. Mubashir, M., Ashena, R., Bokhari, A., Mukhtar, A., Saqib, S., Ali, A., Rahman, S., **Khoo, K.S.**, Ng, H.S., Karimi, F. and Karaman, C., 2021. Effect of process parameters over carbon-based ZIF-62 nano-rooted membrane for environmental pollutants separation. **Chemosphere**, p.133006. [IF:7.086, Q1]
96. Tawfik, A., Moanis, R., Qyyum, M.A., Kumari, S., Bux, F., Ayub, H.M.U., Khan, M.S., Bokhari, A., Mubashir, M., **Khoo, K.S.** and Show, P.L., 2021. Sustainable fermentation approach for biogenic hydrogen productivity from delignified sugarcane bagasse. **International Journal of Hydrogen Energy**. [IF:5.816, Q2]
97. Zhuang, D., He, N., **Khoo, K.S.**, Ng, E.P., Chew, K.W. and Ling, T.C., 2021. Application progress of bioactive compounds in microalgae on pharmaceutical and cosmetics. **Chemosphere**, p.132932. [IF:7.086, Q1]
98. Qureshi, S., Mumtaz, M., Chong, F.K., Mukhtar, A., Saqib, S., Ullah, S., Mubashir, M., **Khoo, K.S.** and Show, P.L., 2021. A review on sensing and catalytic activity of nano-catalyst for synthesis of one-step ammonia and urea: Challenges and perspectives. **Chemosphere**, p.132806. [IF:7.086, Q1]
99. Dawood, S., Ahmad, M., Zafar, M., Asif, S., Klemeš, J.J., Bokhari, A., Mubashir, M., Han, N., Ibrahim, M.M., El-Bahy, Z.M. and **Khoo, K.S.**, 2021. Biodiesel synthesis from Prunus bokhariensis nonedible seed oil by using green silver oxide nanocatalyst. **Chemosphere**, p.132780. [IF:7.086, Q1]
100. Low, S.S., Ji, D., Chai, W.S., Liu, J., **Khoo, K.S.**, Salmanpour, S., Karimi, F., Deepanraj, B. and Show, P.L., 2021. Recent Progress in Nanomaterials Modified Electrochemical Biosensors for the Detection of MicroRNA. **Micromachines**, 12(11), p.1409. [IF:2.891, Q2]
101. Águila-Almanza, E., Hernández-Cocoletzi, H., Rubio-Rosas, E., Calleja-González, M., Lim, H.R., **Khoo, K.S.**, Singh, V., Maldonado-Montiel, J.C. and Show, P.L., 2021. Recuperation and characterization of calcium carbonate from residual oyster and clamshells and their incorporation into a residential finish. **Chemosphere**, p.132550. [IF:7.086, Q1]
102. Cai, Y., Lim, H.R., **Khoo, K.S.**, Ng, H.S., Cai, Y., Wang, J., Chan, A.T.Y. and Show, P.L., 2021. An integration study of microalgae bioactive retention: From microalgae biomass to microalgae bioactives nanoparticle. **Food and Chemical Toxicology**, p.112607. [IF:6.025, Q1]
103. Nawaz, S., Ahmad, M., Asif, S., Klemeš, J.J., Mubashir, M., Munir, M., Zafar, M., Bokhari, A., Mukhtar, A., Saqib, S. and **Khoo, K.S.**, 2021. Phyllosilicate derived catalysts for efficient

conversion of lignocellulosic derived biomass to biodiesel: a review. *Bioresource Technology*, p.126068. [IF:9.642, Q1]

104. Chia, S.R., Nomanbhay, S., Ong, M.Y., Chew, K.W., **Khoo, K.S.**, Karimi-Maleh, H. and Show, P.L., 2021. Recent Development of Renewable Diesel Production Using Bimetallic Catalysts. *Frontiers in Energy Research*, p.621. [IF:4.008, Q2]

Book Chapter:

105. Ong, M.Y., Nomanbhay, S., **Khoo, K.S.** and Show, P.L., Fuel and Biofuels: Incorporation of Industry 5.0 to Biofuel Industry. In *The Prospect of Industry 5.0 in Biomanufacturing* (pp. 181-209). CRC Press.

2020 [January – December]

106. Chia, W.Y., **Khoo, K.S.**, Chia, S.R., Chew, K.W., Yew, G.Y., Ho, Y.C., Show, P.L. and Chen, W.H., 2020. Factors Affecting the Performance of Membrane Osmotic Processes for Bioenergy Development. *Energies*, 13(2), p.481. [Publication date: 2020/1] [IF: 2.702, Q2]
107. **Khoo, K.S.**, Chia, W.Y., Tang, D.Y.Y., Show, P.L. and Chew, K.W., 2020. Nanomaterials Utilization in Biomass for Biofuel and Bioenergy Production. *Energies*, 13(4), p.892. [Publication date: 2020/1] [IF: 2.702, Q2]
108. **Khoo, K.S.**, Leong, H.Y., Chew, K.W., Lim, J.W., Ling, T.C., Show, P.L. and Yen, H.W., 2020. Liquid Biphasic System: A Recent Bioseparation Technology. *Processes*, 8(2), p.149. [Publication date: 2020/2] [IF: 2.753, Q2]
109. Saw, H.S., Sankaran, R., **Khoo, K.S.**, Chew, K.W., Phong, W.N., Tang, M.S., Lim, S.S., Zaid, H.F.M., Naushad, M. and Show, P.L., 2020. Application of a Liquid Biphasic Flotation (LBF) System for Protein Extraction from *Persicaria Tenulla* Leaf. *Processes*, 8(2), p.247. [Publication date: 2020/2] [IF: 2.753, Q2]
110. **Khoo, K.S.**, Chew, K.W., Yew, G.Y., Manickam, S., Ooi, C.W. and Show, P.L., 2020. Integrated ultrasonic assisted liquid biphasic flotation for efficient extraction of astaxanthin from *Haematococcus pluvialis*. *Ultrasonics Sonochemistry*, p.105052. [Publication date: 2020/3/4] [IF: 7491. Q1]
111. **Khoo, K.S.**, Tan, X., Show, P.L., Pal, P., Juan, J.C., Ling, T.C., Ho, S.H. and Nguyen, T.H.P., 2020. Treatment for Landfill Leachate via Physicochemical Approaches: An Overview. *Chemical and Biochemical Engineering Quarterly*, 34(1), pp.1-24. [Publication date: 2020/4/19] [IF: 1.582, Q3]
112. Tang, D.Y.Y., **Khoo, K.S.**, Chew, K.W., Tao, Y., Ho, S.H. and Show, P.L., 2020. Potential utilization of bioproducts from microalgae for the quality enhancement of natural products. *Bioresource Technology*, 304, p.122997. [Publication date: 2020/5/1] [IF: 9.642, Q1]
113. **Khoo, K.S.**, Chew, K.W., Yew, G.Y., Leong, W.H., Chai, Y.H., Show, P.L. and Chen, W.H., 2020. Recent advances in downstream processing of microalgae lipid recovery for biofuel production. *Bioresource Technology*, 304, p.122996. [Publication date: 2020/5/1] [IF: 9.642, Q1]
114. Huy, N.D., Ha, D.T.T., **Khoo, K.S.**, Lan, P.T.N., Quang, H.T., Loc, N.H., Park, S.M., Veeramuthu, A. and Show, P.L., 2020. Synthetic dyes removal by *Fusarium oxysporum* HUIB02 and stimulation effect on laccase accumulation. *Environmental Technology & Innovation*, 19, p.101027. [Publication date: 2020/8/1] [IF: 5.263, Q1]
115. Mat Aron, N.S., **Khoo, K.S.**, Chew, K.W., Show, P.L., Chen, W.H. and Nguyen, T.H.P., 2020. Sustainability of the four generations of biofuels—A review. *International Journal of Energy Research*, 44(12), pp.9266-9282. [Publication date: 2020/10/10] [IF: 5.164, Q1]
116. Aron, N.S.M., **Khoo, K.S.**, Chew, K.W., Veeramuthu, A., Chang, J.S. and Show, P.L., 2020. Microalgae cultivation in wastewater and potential processing strategies using solvent and

membrane separation technologies. **Journal of Water Process Engineering**, p.101701.
[Publication date: 2020/10/19] [IF: 5.485, Q1]

117. **Khoo, K.S.**, Tan, X., Ooi, C.W., Chew, K.W., Leong, W.H., Chai, Y.H., Ho, S.H. and Show, P.L., 2020. How does ionic liquid play a role in sustainability of biomass processing?. **Journal of Cleaner Production**, p.124772. [Publication date: 2020/10/22] [IF: 9.297, Q1]
118. Chia, W.Y., Chia, S.R., **Khoo, K.S.**, Chew, K.W. and Show, P.L., 2020. Sustainable membrane technology for resource recovery from wastewater: Forward osmosis and pressure retarded osmosis. **Journal of Water Process Engineering**, p.101758. [Publication date: 2020/11/1] [IF: 5.485, Q1]
119. Tran, T.N.T., **Khoo, K.S.**, Chew, K.W., Phan, Q.T., Nguyen, H.S., Nguyen-Sy, T., Nguyen, T.D.P., Chen, W.H. and Show, P.L., 2020. Modelling drying kinetic of oyster mushroom dehydration—the optimization of drying conditions for dehydration of *Pleurotus* species. **Materials Science for Energy Technologies**. [Publication date: 2020/11/2]
120. Hoàng, T.Y., Khoo, K.S., Ngọc, H.L.T., Thu, Q.T.T., Thị, T.Đ., Thu, H.Đ.T., Hoàng, H.C., Chinthapati, S., Lay, C.H. and Show, P.L., 2020. Sustainable cultivation via waste soybean extract for higher vaccenic acid production by purple non-sulfur bacteria. **Clean Technologies and Environmental Policy**, pp.1-10. [Publication date: 2020/11/2] [IF: 3.626, Q1]
121. Chia, W.Y., Tang, D.Y.Y., **Khoo, K.S.**, Lup, A.N.K. and Chew, K.W., 2020. Nature's fight against plastic pollution: Algae for plastic biodegradation and bioplastics production. **Environmental Science and Ecotechnology**, p.100065. [Publication date: 2020/11/5]
122. Su Chern F., **Khoo, K.S.**, Chien Wei, O., Show, P.L., Khong, N.M. and Yusoff, F.M., 2020. Meeting sustainable development goals: Alternative extraction processes for fucoxanthin in algae. **Frontiers in Bioengineering and Biotechnology**, 8, p.1371. [Publication date: 2020] [IF: 5.890, Q1]
123. Qian, Y., Bian, L., Wang, K., Chia, W.Y., **Khoo, K.S.**, Zhang, C. and Chew, K.W., 2020. Preparation and Characterization of Curdlan/Nanocellulose Blended Film and Its Application to Chilled Meat Preservation. **Chemosphere**, p.128948. [Publication date: 2020/11/13] [IF: 7.086, Q1]
124. Yew, G.Y., **Khoo, K.S.**, Chia, W.Y., Ho, Y.C., Law, C.L., Leong, H.Y. and Show, P.L., 2020. A novel lipids recovery strategy for biofuels generation on microalgae *Chlorella* cultivation with waste molasses. **Journal of Water Process Engineering**, 38, p.101665. [Publication date: 2020/12/1] [IF: 5.485, Q1]
125. Chew, K. W., **Khoo, K. S.**, Foo, H. T., Chia, S. R., Walvekar, R., & Lim, S. S., 2020. Algae utilization and its role in the developments of green cities. **Chemosphere**, 129322. [IF: 7.086, Q1]
126. **Khoo, K. S.**, Ooi, C. W., Chew, K. W., Foo, S. C., & Show, P. L., 2020. Bioprocessing of *Chaetoceros calcitrans* for the recovery of fucoxanthin using CO₂-based alkyl carbamate ionic liquids. **Bioresource Technology**, 124520. [IF: 9.642, Q1]

Book Chapter:

127. **Khoo, K.S.**, Tan, K.L., Lee, S.Y. and Show, P.L., 2020. Organic solvent based liquid biphasic system. **Liquid Biphasic System: Fundamentals and Applications in Bioseparation Technology**, p.39.
128. **Khoo, K.S.**, Yusof, H., Lee, S.Y. and Show, P.L., 2020. Polymer-based liquid biphasic system. **Liquid Biphasic System: Fundamentals and Applications in Bioseparation Technology**, p.17.

2019 [April – December]

129. **Khoo, K. S.**, Chew, K. W., Ooi, C. W., Ong, H. C., Ling, T. C., & Show, P. L. (2019). Extraction of natural astaxanthin from *Haematococcus pluvialis* using liquid biphasic flotation system. **Bioresource Technology**, 290, 121794. [Publication date: 2019/10/1] [IF: 9.642, Q1]
130. **Khoo, K. S.**, Chew, K. W., Ooi, C. W., Ong, H. C., Ling, T. C., & Show, P. L. (2019). Extraction of natural astaxanthin from *Haematococcus pluvialis* using liquid biphasic flotation system. **Bioresource Technology**, 290, 121794. [Publication date: 2019/10/1] [IF: 9.642, Q1]
131. Lim, J. W., Khoo, K. S., Lam, H. Y., Lau, Z. Y., Wuie, A. O. C., Azlan, A., & Beh, H. G. (2019). PVA entrapped activated sludge beads coated with PAC for bioremediating 4-chlorophenol-bearing wastewater. **International Journal of Biomass and Renewables**, 7(2), 12-17. [Publication date: 2019/2/28]
132. **Khoo, K. S.**, Chew, K. W., & Show, P. L. (2019, August). POCER 1913: An Alternative Recovery of Astaxanthin from *Haematococcus Pluvialis* Microalgae. In Colloquium for Environmental Research (POCER 2019) 8-9 August 2019 Pulse Grande Hotel, Putrajaya, Malaysia (Vol. 8, p. 33). [Publication date: 2019/8]
133. Rahim, A. H. A., **Khoo, K. S.**, Yunus, N. M., & Hamzah, W. S. W. (2019, September). Ether-functionalized ionic liquids as solvent for *Gigantochloa scortechini* dissolution. In AIP Conference Proceedings (Vol. 2157, No. 1, p. 020025). **AIP Publishing LLC**. [Publication date: 2019/9/18]
134. Leong, W.H., Zaine, S.N.A., Ho, Y.C., Uemura, Y., Lam, M.K., **Khoo, K.S.**, Kiatkittipong, W., Cheng, C.K., Show, P.L. and Lim, J.W., 2019. Impact of various microalgal-bacterial populations on municipal wastewater bioremediation and its energy feasibility for lipid-based biofuel production. **Journal of Environmental Management**, 249, p.109384. [Publication date: 2019/11/1] [IF: 6.789, Q1]
135. Tham, P. E., Ng, Y. J., Sankaran, R., **Khoo, K. S.**, Chew, K. W., Yap, Y. J., ... & Show, P. L. (2019). Recovery of Protein from Dairy Milk Waste Product Using Alcohol-Salt Liquid Biphasic Flotation. **Processes**, 7(12), 875. [Publication date: 2019/12]