

Synthesized Functional Materials for Industrial and Environmental Applications

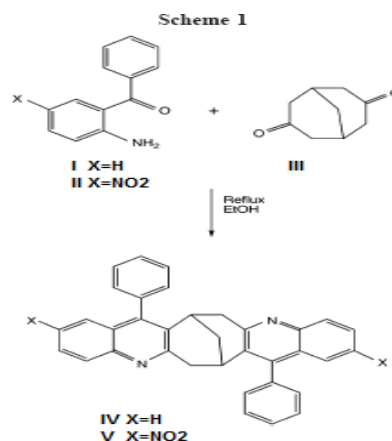
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Abstract

The large environmental challenge that the world faces today is the scarcity of water. Definitely, water is the significant feature in the population/resources equation where water resources in the world are limited and the world's population has continued to rise. The increasing interest in suitable wastewater treatment technologies has generated the urgent need for alternative non-organic adsorbents due to their innate merits in terms of raw abundance, removal efficiency, and operational safety. Organic materials, one of the most important adsorbent systems, have been widely used for removal of toxic substances. However, the large-scale application of organic adsorbents is hampered by the concerns of limited removal efficiency, high production cost, and safety issues. In this regard, the development of new materials is urgently needed for the next generation adsorbent technologies.

Non-organic (TiO₂, CuO, etc.) nano-adsorbents for the removal of heavy metals and organic pollutants have attracted great attention as emerging low-cost and high removal efficiency technologies for large-scale applications. However, the development of these approaches is hindered by the limited choice of high-performance adsorbent materials.



Recent Publications

1. Mohammed M. Al-Mahadeen, Anwar G. Jiries, Salah A. Al-Trawneh, Solhe F. Alshahateet, Ahmad S. Eldouhaibi and Suresh Sagadevan. *Chemical Physics Letters*, 2021. 783. 139053.
2. Salah A. Al-Trawneh, Anwar G. Jiries, Solhe F. Alshahateet, Suresh Sagadevan. *Chemical Physics Letters*, 2021, 781, 138959.
3. Suresh Sagadevan, J. Anita Lett, Selvaraj Vennila, P. Varun Prasath, Gobi Saravanan Kaliaraj, Is Fatimah, Estelle Léonard, Faruq Mohammad, Hamad A. Al-Lohedan, Solhe F. Alshahateet, Chew Tin Le. *Chemical Physics Letters*, 2021, 771, 138527.
4. Sagadevan Suresh, Selvaraj Vennila, J. Anita Lett, Is Fatimah, Faruq Mohammad, Hamad A. Al-Lohedan, Solhe F. Alshahateet, M. A. Motalib Hossain & Mohd Rafie Johan. *Inorganic and Nano-Metal Chemistry*, 2021. <https://doi.org/10.1080/24701556.2021.1880437>.
5. Suresh Sagadevan, Selvaraj Vennila, Lakshmi Pathy Muthukrishnan, Baranya Murugan, J. Anita Lett, M. A. Motalib Hossain, Faruq Mohammad, Hamad A. Al-Lohedan, Solhe F. Alshahateet, Is Fatimah. *Nanostruct Chem*, 2021, 11, 561.

Biography



Prof. Solhe F. Alshahateet received his PhD from University of New South Wales (UNSW), Australia in 2003. He holds a full professor position in the Department of Chemistry, Mutah University, Jordan. He served in various positions such as President of Aqaba University of Technology in Jordan. He has been a Visiting Scientist, in the ICES & A*STAR, Singapore, and in the Department of Chemistry, the University of South Florida, USA. He was as a Visiting Fellow at the University of New South Wales, Australia.

He has 25 years of teaching and 30 years of research experience. He has published more than 90 papers in internationally reputed journals with sound knowledge of research in his field. His field of the research area is focused on crystal engineering and supramolecular chemistry involving industrial applications.

He is an expert group leader as well as an associate member of various scientific societies, reorganizations, and professional bodies. He has been involved as the editor/ editorial board member/ reviewer for various high-impact factor journals. He has delivered many lectures as the chairperson and also contributed Plenary, Keynote, and Invited lectures worldwide. At present, his google scholar citation is 1,134 h-index is 21, and i10 index is 38. As well as Scopus citations is 729 and h-index is 17 and also, his Research score (RG) is 33.15 which strongly endorses his high research productivity.

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