



## CURRICULUM VITAE

### DR. SHAFREEZA SOBRI

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#### Academic Qualifications

- Sijil Pelajaran Malaysia, 1997, Maktab Rendah Sains MARA, Beseri Perlis, Malaysia
- Bachelor Engineering (Chemical Engineering), 2001, Universiti Teknologi Malaysia, Malaysia
- PhD, Chemical Engineering (Electrochemistry), 2006, University of Newcastle upon Tyne, UK

#### Area of Interest

- Electrochemistry
- Electrochemical Engineering
- Water and Wastewater Engineering
- Environmental Engineering
- Air Pollution Engineering

#### Appointment

- Senior lecturer, Department of Chemical and Environmental Engineering, Universiti Putra Malaysia, Malaysia, 2006 – to date
- Tutor, Department of Chemical and Environmental Engineering, Universiti Putra Malaysia, Malaysia, 2002 – 2006

#### Professional Qualification/ Membership/ Affiliation

- Associate Member, Institution of Chemical Engineers (IChemE)
- Graduate Member, Board of Engineers Malaysia (BEM)

#### Publications

##### Journals

1. M. J. Liew, **S. Sobri** and S. Roy, Characterisation of a Thiosulphate-Sulphite Gold Electrodeposition Process, *Electrochimica Acta*, Volume 51, Number 5, pp. 877-881 (2005).
2. **S. Sobri** and S. Roy, Gold Electrocrystallisation from a Spent Thiosulfate-Sulfite Electrolyte, *Journal of the Electrochemical Society*, Volume 152, Issue 9, pp. C593-C599 (2005).
3. G. Liew Abdullah, M. A. Mohd Salleh, M. K. Siti Mazlina, M. J. Megat Mohd Noor, M. R. Osman, R. Wagiran and **S. Sobri**, Azo Dye Removal by Adsorption Using Waste Biomass: Sugarcane Bagasse, *International Journal of Engineering and Technology*, Volume 2, Number 1, pp. 8-13 (2005).

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4. **S. Sobri**, S. Roy, E. Kalman, P. Nagyp and M. Lakatos, Studies Related to Recovery of Gold from a Spent Thiosulphate-Sulphite Electrolyte, *ECS Transactions* 1 (13), pp. 37-42 (2006).
  5. J. Jasni, N. Azis, H. Hizam, M. Z. A. Kadir, M. N. Mariun, S. B. M. Noor, **S. Sobri**; An Efficient Generalized Minimized Residual Simulation Technique for Continuation Power Flow Studies; *Asian Journal of Applied Sciences*, ISSN 1996-3343; pp 1-11 (2008).
  6. **Sobri, S.** Roy, E. Kalman, P. Nagyp and M. Lakatos, Growth of Gold Particles on Glassy Carbon from a Thiosulphate-sulphite Aged Electrolyte; *Pertanika Journal of Science. & Technology*, 16 (1), pp 41-48 (2008).
  7. **S. Sobri**, S. Roy, E. Kalman, P. Nagyp and M. Lakatos, Growth of Electrodeposited Gold on Glassy Carbon from a Thiosulphate-Sulphite Electrolyte, *Surface and Interface Analysis*, Volume 40, Issue 3-4, pp 834-843 (2008).
  8. **S. Sobri**, S. Roy, Nucleation Studies of Gold on Carbon Electrodes, *Journal of Engineering Science and Technology*, Volume 3, No. 1, pp 62-70 (2008).
  9. Norlirubayah Mohd Nasir, Ting Teo Ming, Fakhru'l-Razi Ahmadun and **Shafreeza Sobri**, Decomposition and Biodegradability Enhancement of Textile Wastewater Using a Combination of Electron Beam Irradiation and Activated Sludge Process, *Water Science and Technology*, 62.1, pp 42-47 (2010).
  10. F. Heidarpour, W. A. Wan Ab. Karim Ghani, A. Fakhru'l-Razi, **S. Sobri**, V. Heydarpour, M. Zargar, M. R. Mozafari, Nano Silver-Coated Polypropylene Water Filter: I. Manufacture by Electron Beam Gun Using a Modified Balzers 760 Machine, *Digest Journal of Nanomaterials and Biostructures*, Vol. 5, No. 3, pp 1049-1058 (2010).
  11. F. Heidarpour, W. A. Wan Ab. Karim Ghani, A. Fakhru'l-Razi, **S. Sobri**, V. Heydarpour, M. Zargar, M. R. Mozafari, Nano Silver-Coated Polypropylene Water Filter: II. Evaluation of Antimicrobial Efficiency, *Digest Journal of Nanomaterials and Biostructures*, Vol. 5, No. 3, pp 1059-1066 (2010).
  12. F. Heidarpour, W. A. Wan Ab. Karim Ghani, A. Fakhru'l-Razi, **S. Sobri**, V. Heydarpour, M. Zargar, M. R. Mozafari, Complete Removal of Pathogenic Bacteria from Drinking Water using Nano Silver-coated Cylindrical Polypropylene Filters, *Clean Technology Environmental Policy*, DOI 10.007/s10098-010-0332-2.
  13. Amin Firouzi, **Shafreeza Sobri**, Faizah Mohd. Yasin and Fakhru'l-Razi Ahmadun, CH<sub>4</sub> and CO<sub>2</sub> Detection by using Carbon Nanotube-based Sensors, *Advanced Materials Research*, Vol 214 pp 482-489 (2011).
  14. Amin Firouzi, **Shafreeza Sobri**, Faizah Mohd. Yasin and Fakhru'l-Razi Ahmadun, The Effect of CH<sub>4</sub> and CO<sub>2</sub> Exposure on Carbon Nanotubes Electrical Resistance, *Advanced Materials Research*, Vol 214 pp 655-661 (2011).
  15. **S. Sobri**, A. H. M. Ali, Chemical Characterization of Printed circuit Board Wastewater, *IOP Conf. Series: Materials Science and Engineering* 17 (2011) 012021.
  16. Masoumeh Moayeri Kashani, Salman Masoudi Soltani, and **S. Sobri**, Treatment of a Malaysian Leachate Sample Using Electrocoagulation, *International Journal of Chemical Engineering and Applications*, Vol. 3, No. 1, (February 2012)
  17. Noor Azilah Mohd Kassim, Siti Hasnawati Jamal, **Shafreeza Sobri**, Nurjahirah Janudin, Optimization of Synthesis of Carbon Nanotubes using Chemical Vapor Deposition Method, *Advanced Materials Research*, Vol 488-489 pp 1535-1539 (2012)
  18. A. H. M. Ali, **S. Sobri**, Salmiaton A., Faizah M. Y., Recovery of Heavy Metals from Spent Etching Waste Solution of Printed Circuit Board Manufacturing, *Pertanika Journal of Science and Technology*, 21 (1), 367-378 (2013)
  19. Rabiatul Adawiyah Danial, Luqman Chuah Abdullah, Mohsen Nourouzi Mobarekeh, **Shafreeza Sobri**, Nordayana Mohd Adnan, A Comparison between Aluminium and Iron Electrodes in Electrocoagulation Process for Glyphosate Removal, *Jurnal Teknologi (Sciences & Engineering)*, 77:32, 21-26 (2015)
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20. Rabiatuladawiyah Danial, Chuah Teong Guan, Mohsen Nourouzi Mobarekeh, **Shafreeza Sobri**, Yvonne Koh Wei Ling, Magnetic Field Enhanced Electrocoagulation Using Iron Electrode in Removing Glyphosate from Aqueous Solution, *Malaysian Journal of Chemistry*, Vol. 18(1), 38–49 (2016)
  21. T.T. Dele-Afolabi, M.A. Azmah Hanim, M. Norkhairunnisa, **S. Sobri**, R. Calin, Research trend in the development of macroporous ceramic components by pore forming additives from natural organic matters: A short review, *Ceramics International* 43, 1633–1649 (2017)
  22. **S. Sobri**, N. Rahim, Inhibitive effect of coconnucifera l. (coconut pulp) extract on mild steel acid corrosion, *Jurnal Teknologi* 79:5–3 9–14 (2017)
  23. T.T. Dele-Afolabi, M.A. Azmah Hanim, M. Norkhairunnisa, **S. Sobri**, R. Calin, Investigating the effect of porosity level and pore former type on the mechanical and corrosion resistance properties of agro-waste shaped porous alumina ceramics, *Ceramics International* 43 (2017) 8743–8754.
  24. Hassan Mohammed, **Shafreeza Sobri**, Corrosion inhibition studies of cashew nut (*Anacardium occidentale*) on carbon steel in 1.0 M hydrochloric acid environment, *Materials Letters* 229 (2018) 82–84.
  25. T.T. Dele-Afolabi, M.A. Azmah Hanim, M. Norkhairunnisa, **S. Sobri**, R. Calin, Ismarrubie Z.N., Significant effect of rice husk and sugarcane bagasse pore formers on the microstructure and mechanical properties of porous Al<sub>2</sub>O<sub>3</sub>/Ni composites, *Journal of Alloys and Compounds* 743 (2018) 323–331.
  26. Temitope Dele-Afolabi, Azmah Hanim Mohamed Ariff, Norkhairunnisa Mazlan, **Shafreeza Sobri**, Recep Calin, Ismarrubie Zahari Nur, Effect of agro-waste pore formers on the microstructure, hardness, and tensile properties of porous alumina ceramics, *International Journal of Applied Ceramic Technology*, (2018); 15:1060–1071.
  27. T.T. Dele-Afolabi, M.A. Azmah Hanim, M. Norkhairunnisa, **S. Sobri**, R. Calin, Ismarrubie Z.N., Agro-waste shaped porous Al<sub>2</sub>O<sub>3</sub>/Ni composites: Corrosion resistance performance and artificial neural network modelling, *Materials Characterization*, 142 (2018) 77–85.
  28. T.T. Dele-Afolabi, M.A. Azmah Hanim, M. Norkhairunnisa, **S. Sobri**, R. Calin, Ismarrubie Z.N., Tensile strength and corrosion resistance properties of porous Al<sub>2</sub>O<sub>3</sub>/Ni composites prepared with rice husk pore-forming agent, *Ceramics International*, 44 (2018) 11127–11135.
  29. Temitope T. Dele-Afolabi, Mohamed A.A. Hanim, Mazlan. Norkhairunnisa, **Shafreeza. Sobri**, Recep. Calin and Oluwatosin J. Ojo-Kupoluyi, Fabrication Methods and Characterization Techniques for Porous Ceramic Materials. In: Saleem Hashmi (editor in chief), *Reference Module in Materials Science and Materials Engineering*, Oxford:Elsevier, (2019), pp. 1–11.
  30. Khalid, N.I., Sulaiman, S., Ab Aziz, N., Taip, F.S., **Sobri, S.** and Nor-Khaizura, M.A.R., Electrolyzed water as a green cleaner: chemical and physical characterization at different electrolyzing parameters, *Food Research* 2, 6 (2018), 512 – 519
  31. Rabiatuladawiyah Danial, **Shafreeza Sobri**, Luqman Chuah Abdullah, Mohsen Nourouzi Mobarekeh, FTIR, CHNS and XRD analyses define mechanism of glyphosate herbicide removal by electrocoagulation, *Chemosphere*, 233 (2019), 559-569.
  32. N.I.Khalid, U.S.Saulaiman, N.A.Nasiruddin, M.M.Hatdran, N. Ab Aziz, M.A.R. NorKhaizura, N.Z.N.Hasnan, F.S.Taip, **S. Sobri**, Integrating cleaning studies with industrial practice: Case study of an effective cleaning program for a frozen meat patties SME factory, *Journal of Cleaner Production*, (2019)
  33. Nur Izzah Nabilah Haris, **Shafreeza Sobri**, Norazila Kassim, Oil palm empty fruit bunch extract as green corrosion inhibitor for mild steel in hydrochloric acid solution: Central composite design optimization, *Materials and Corrosion*, 70 (2019), 1111–1119.
  34. Nur Izzah Nabilah Haris, **Shafreeza Sobri**, Yus Aniza Yusof, Norazila Kassim, Oil palm empty fruit bunch extract and powder as an eco-friendly corrosion inhibitor for mild steel: A comparison study, *Materials and Corrosion*, 70 (2019), 2326-2333.
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35. Temitope T Dele-Afolabi, Mohamed AA Hanim, Mazlan Norkhairunnisa, and **Shafreeza Sobri**, Fabrication Methods and Characterization Techniques for Porous Ceramic Materials, Reference Module in Materials Science and Materials Engineering, In book: Reference Module in Materials Science and Materials Engineering, January (2019).
  36. Mohammed Abdullah Issa, Zurina Z Abidin, **Shafreeza Sobri**, Suraya Abdul Rashid, Mohd Adzir Mahdi, Nor Azowa Ibrahim, Musa Y. Pudza, Facile synthesis of nitrogen-doped carbon dots from lignocellulosic waste, *Nanomaterials*, 9, 1500 (2019).
  37. Mohammed Abdullah Issa, Zurina Z Abidin, **Shafreeza Sobri**, Suraya Abdul Rashid, Mohd Adzir Mahdi, Nor Azowa Ibrahim, Fluorescent recognition of Fe<sup>3+</sup> in acidic environment by enhanced-quantum yield N-doped carbon dots: optimization of variables using central composite design, *Nature: Scientific Reports* Volume 10, Article number: 11710 (2020).
  38. Khalid, N.I.; Sulaiman, N.S.; Ab Aziz, N.; Taip, F.S.; **Sobri, S.**; Mahmud Ab Rashid, N.-K. Optimization of electrolysis parameters for green sanitation chemicals production using response surface methodology. *Processes*, 8 (7), 792, (2020).
  39. Mohammed Abdullah Issa, Zurina Z Abidin, **Shafreeza Sobri**, Suraya Abdul Rashid, Mohd Adzir Mahdi, Nor Azowa Ibrahim, Musa Y. Pudza, Fabrication, characterization and response surface method optimization for quantum efficiency of fluorescent nitrogen-doped carbon dots obtained from carboxymethylcellulose of oil palms empty fruit bunch, *Chinese Journal of Chemical Engineering*, Volume 11, Issue 1, 46 (2021).
  40. Nur Izzah Nabilah Haris, **Shafreeza Sobri**, Yus Aniza Yusof, Kartinee Kassim, An overview of molecular dynamic simulation for corrosion inhibition of ferrous metals, *Metals*, Volume 28, Issue 2, 584-592 (2021)
  41. Shiyi Li and **Shafreeza Sobri**, Synthesis and performance of PAFS coagulant derived from aluminium dross, *Pertanika J. Sci. & Technol.* 30 (1): 547 - 563 (2022).
  42. Nor Khuza Hidayu Ismail, **Shafreeza Sobri** and Nur Izzah Nabilah Haris, Corrosion inhibition of mild steel by cassava peel powder in hydrochloric acid medium, *Journal of Applied Science and Engineering*, Vol. 26, No 2, Page 269-278 (2022).
  43. Xiaoju Li, Luqman Chuah Abdullah, **Shafreeza Sobri**, Mohamad Syazarudin Md Said, Siti Aslina Hussain, Tan Poh Aun & Jinzhao Hu, Long-Term Air Pollution Characteristics and Multi-scale Meteorological Factor Variability Analysis of Mega-Mountain Cities in the Chengdu-Chongqing Economic Circle, *Water, Air & Soil Pollution*, 234:328 (2023).

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### Proceedings

1. **S. Sobri**, S. Roy, E. Kalman, P. Nagyp and M. Lakatos, Growth of Gold Particles on Glassy Carbon from a Thiosulphate-sulphite Aged Electrolyte, *Proceedings of World Engineering Congress 2007*, 99 277-281 (2007).
  2. **S. Sobri** and S. Roy, Nucleation Studies of Gold on Carbon Electrodes, *Proceedings of Symposium of Malaysian Chemical Engineers (SOMChE)*, 2007, 99 1-9 (2007).
  3. **S. Sobri** and A. H. M. Ali, Chemical Characterization of Printed Circuit Board (PCB) Wastewater, *Conference on Advanced Materials and Nanotechnology* (2009)
  4. F. Heidarpour, A. Wan Ab. Karim ghani, **S. Sobri**, M. Zargar, F. Ghorab, The Effect of Nano Silver Filter on Water Treatment, *Environmental Science and Technology Conference* (2009)
  5. A. Halim, **S. Sobri**, Salmiaton A., Recovery of Heavy Metals from Spent Etching Waste Solution of Printed Circuit Board (PCB) Manufacturing, *International Conference on Environment* (2010)
  6. **S. Sobri**, N.Rahim, Inhibitive Effect of Cocon Nucifera L. (Coconut Pulp) Extract on Mild Steel Acid Corrosion, *28th Symposium of Malaysian Chemical Engineers*, Kuala Lumpur (2015)
  7. **S. Sobri**, N.Rahim, Adsorption And Thermodynamics Study Of The Inhibition of Corrosion Of Mild Steel In Hcl Medium Using Coconut Pulp Waste Extract, *Corrosion and Prevention*, Auckland (2016)
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8. **Shafreeza Sobri**, Hassan Muhammad, Corrosion Inhibition Effect of Carbon Steel Using Cashew Nut Powder, 17th Congress, Asian Pacific Confederation of Chemical Engineering, Hong Kong (2017)
9. Mohd Syafik Firdaus Hasbullah and **S. Sobri**, Performance and Evaluation of Alum Sludge Ash as a Brick Material, The 4th International Conference on Green Design and Manufacture 2018, Ho Chi Minh (2018)
10. Nur Izzah Nabilah Haris, **Shafreeza Sobri**, Yus Aniza Yusof, Gravimetric Analysis of Chemically Treated Oil Palm Empty Fruit Bunch Powders as Corrosion Inhibitor, The 6th International Conference on Green Design and Manufacture 2020, Ho Chi Minh (2020)

### Past Research Projects

Project Title	Role	Year	Source of Fund	Status
Electrodeposition of Copper from Copper Sulphate Electrolyte	Project leader	2007-2008	Pensyarah Lantikan Baharu	Completed
Investigation on Selective Metal Recovery from Printed Circuit Board (PCB) Wastewater	Project leader	2007-2009	FRGS	Completed
The Effect of Nanosilver Filter on Sewage Wastewater	Project leader	2009-2011	RUGS	Completed
Microwave Assisted Acid Extraction and Recovery of Metals from e-waste	Project leader	2011-2014	RUGS	Completed
Hylocereus Undatus Extract as a Novel Green Inhibitor for Mild Steel Acid Corrosion	Project leader	2014-2017	FRGS	Completed
Controlled Release of OPEFB Tablet as Corrosion Inhibitor	Project leader	2018-2021	GP-IPS	Completed

### Honours and Awards

Name of Awards	Title	Award Authority	Award Type	Year
Academic Awards	Graduate Student Fellowship	IEEE Lasers and Electro-optics Society	National	2000

### Language Proficiency

- English (Excellent, 5/5)
- Malay (Excellent, 5/5)

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