

## DR. AHMAD DANIAL AZZAHARI

Ph.D. Universiti Malaya, 2018  
MSc. (Polymer Chemistry), 2012  
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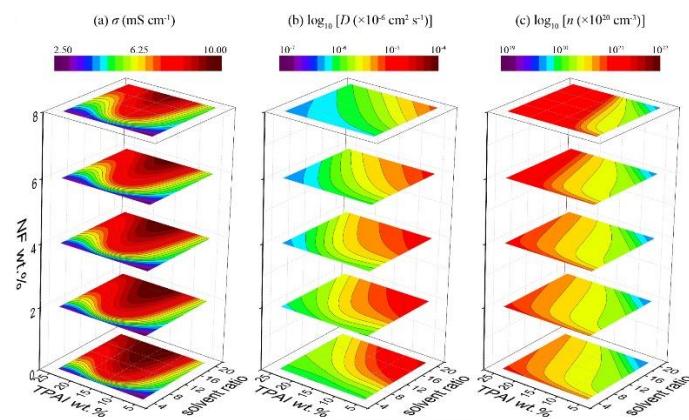
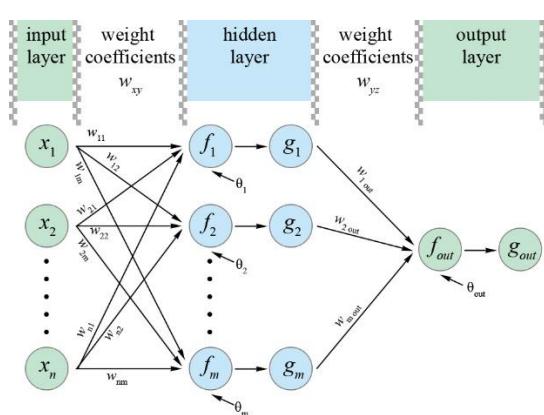


## RESEARCH INTEREST

Materials Science, Chemometrics (DoE, RSM, ANN), Polymer Synthesis and Characterization (NMR, FTIR, TGA, DSC, EIS, Rheology, XRD), Polymer Electrolytes, & Polymer Composites.

## RESEARCH HIGHLIGHT

- Biopolymers (modified chitosan, guar gum, starch, cellulose)
- Hydrogels material (modified guar gum, chitosan)
- Dental material (capping agent for silver diamine fluoride)



Artificial Neural Network models for electrochemical properties of a Gel Polymer Electrolyte system

## REPRESENTATIVE PUBLICATIONS:

1. Mazlan, M., Rizwan, M., Azzahari, A. D., Selvanathan, V., Sonsudin, F., & Shahabudin, N. (2021). The impact of substitution of two hydrophobic moieties on the properties of guar gum based hydrogels. *Pigment & Resin Technology*.
2. Asghar M., Omar R. A., Yahya R., Yap A. U., Ali Z. A., Chua K. Y., & Azzahari A. D. (2020). Effect of glutathione incorporation on the biochemical properties of silver diamine fluoride. *Fluoride*.
3. Abdullah, C. I., Azzahari, A. D., Rahman, N. M. M. A., Hassan, A., & Yahya, R. (2019). Optimizing treatment of oil palm-empty fruit bunch (OP-EFB) fiber: Chemical, thermal and physical properties of alkali-treated fibers. *Fibers and Polymers*, 20(3), 527-537.
4. Azzahari, A. D., Selvanathan, V., Rizwan, M., Sonsudin, F., & Yahya, R. (2018). Conductivity or rheology? Tradeoff for competing properties in the fabrication of a gel polymer electrolyte based on chitosan-barbiturate derivative. *Ionics*, 24(10), 3015-3025.
5. Azzahari, A. D., Yusuf, S. N. F., Selvanathan, V., & Yahya, R. (2016). Artificial neural network and response surface methodology modeling in ionic conductivity predictions of phthaloylchitosan-based gel polymer electrolyte. *Polymers*, 8(2), 22.

## WEBSITE

[https://umexpert.um.edu.my/ahmad\\_danial](https://umexpert.um.edu.my/ahmad_danial)  
<https://publons.com/researcher/1558540/ahmad-danial-azzahari/>  
<https://scholar.google.com/citations?user=cLRXVHIAAAJ&hl=en>  
<https://www.scopus.com/authid/detail.uri?authorId=55250018000>  
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