











- (South Africa). Editors: E. Muzenda and T Yingthawornsuk. ISBN: 978-93-84422-58-5. 2015.
- [18] E. Fosso-Kankeu, F.B. Waanders, F.W. Steyn, The Preparation and Characterization of Clay-Biochar Composites for the Removal of Metal Pollutants. 7<sup>th</sup> International Conference on Latest Trends in Engineering and Technology (ICLTET' 2015), November 26-27, 2015 Irene, Pretoria (South Africa). Editors: E. Muzenda and T Yingthawornsuk. ISBN: 978-93-84422-58-5. 2015.
- [19] E. Fosso-Kankeu, F. Waanders, E. Maloy, Copolymerization of ethyl acrylate onto guar gum for the adsorption of Mg(II) and Ca(II) ions. Desalination and Water Treatment. doi: 10.1080/19443994.2016.1165147; pp. 1-10, 2016.
- [20] E. Fosso-Kankeu, F. Waanders, C.L. Fourie, Adsorption of Congo Red by surfactant-impregnated bentonite clay. Desalination and Water Treatment. doi: 10.1080/19443994.2016.1177599; pp. 1-9, 2016.
- [21] E. Fosso-Kankeu, A.F. Mulaba-Bafubiandi, L.A. Piater, M.G. Tlou, Cloning of the *cnr* operon into a strain of Bacillaceae bacterium for the development of a suitable biosorbent. World Journal of Microbiology and Biotechnology. DOI 10.1007/s11274-016-2069-5. 2016.
- [22] E. Fosso-Kankeu, F. Waanders, J. Potgieter, Enhanced adsorption capacity of sweet sorghum derived biochar towards malachite green dye using bentonite clay. International Conference on Advances in Science, Engineering, Technology and Natural Resources (ICASETNR-16) Nov. 24-25, 2016, Parys – South Africa. ISBN: 978-93-84468-79-8. 2016.
- [23] E. Fosso-Kankeu, F. Waanders, I.M. Grobler, N. Lemmer, Synthesis and application of hydrogel-silica composite for the removal of lead from aqueous solution. International Conference on Advances in Science, Engineering, Technology and Natural Resources (ICASETNR-16) Nov. 24-25, 2016, Parys – South Africa. ISBN: 978-93-84468-79-8. 2016.
- [24] C. Mampho, S. Pandey, J. Ramontja, E. Fosso-Kankeu, F. Waanders, Synthesis and characterization of superadsorbent hydrogels based on natural polymers kappa carrageenan. International Conference on Advances in Science, Engineering, Technology and Natural Resources (ICASETNR-16) Nov. 24-25, 2016, Parys – South Africa. ISBN: 978-93-84468-79-8. 2016.
- [25] E. Fosso-Kankeu, F.B. Waanders, F.W. Steyn, Removal of Cr(VI) and Zn(II) from an aqueous solution using an organic-inorganic composite of bentonite-biochar-hematite. Desalination and Water Treatment. Vol. 59, pp. 144-153, 2017.
- [26] E. Fosso-Kankeu, F. Waanders, N. Lemmer, R.H. Steyn, Surfactant Impregnated Bentonite Clay for the Removal of Heavy Metals from Solution. 9<sup>th</sup> Int'l Conference on Advances in Science, Engineering, Technology & Waste Management (ASETWM-17). 27-28 November 2017, Parys, South Africa. Editors: F. Waanders, E. Fosso-Kankeu, B. Topcuoglu, M. Plaisent, Y. Thaweesak. ISBN: 978-81-934174-6-1. Pp. 132-136. 2017.
- [27] S. Pandey, E. Fosso-Kankeu, J. Ramontja, Efficient and rapid adsorption characteristics of templating xanthan gum-graft-poly (aniline) and silica nanocomposite toward removal of toxic methylene blue dyes. 9<sup>th</sup> Int'l Conference on Advances in Science, Engineering, Technology & Waste Management (ASETWM-17). 27-28 November 2017, Parys, South Africa. Editors: F. Waanders, E. Fosso-Kankeu, B. Topcuoglu, M. Plaisent, Y. Thaweesak. ISBN: 978-81-934174-6-1. Pp. 175-180. 2017.
- [28] E. Fosso-Kankeu, 2018. Synthesized af-PFCl and GG-g-P(AN)/TEOS hydrogel composite used in hybridized technique applied for AMD treatment. Journal of Physics and Chemistry of the Earth. 2018.
- [29] E. Erdem, N. Karapinar, R. Donat, The removal of heavy metal cations by natural zeolites. *J Colloid Interface Sci.*, Vol. 280, no. 2, pp. 309-314, 2004.  
<https://doi.org/10.1016/j.jcis.2004.08.028>
- [30] Delk, F.S. & Sienko, M. 1980. Relationship between superconductivity, magnetic susceptibility, and crystal structure in the pseudobinary system lead molybdenum sulfide-lead molybdenum selenide (PbMo6S8-PbMo6Se8). *Inorganic Chemistry*, 19(5):1352-1356.  
<https://doi.org/10.1021/ic50207a050>
- [31] Wang, S. & Peng, Y. 2010. Natural zeolites as effective adsorbents in water and wastewater treatment. *Chemical Engineering Journal*, Vol. 156, no. 1, pp. 11-24, 2010.  
<https://doi.org/10.1016/j.cej.2009.10.029>
- [32] R. Han, L. Zou, X. Zhao, Y. Xu, F. Xu, Y. Li, Y. Wang, Characterization and properties of iron oxide-coated zeolite as adsorbent for removal of

copper (II) from solution in fixed bed column. *Chemical Engineering Journal*. Vol. 149, pp. 123-131, 2009.

<https://doi.org/10.1016/j.cej.2008.10.015>

- [33] M. Amini, A. Ramazani, M. Faghihi, S. Fattahpour, Preparation of nanostructured and nanosheets of MoS<sub>2</sub> oxide using oxidation method. *Ultrasonic – Sonochemistry*. Vol. 39, 188-196, 2017.



**M. J. Spiro** was born in Johannesburg, South Africa in 1993 and was a Chemical Engineering student at the North West University (NWU) Potchefstroom campus.

He spent much of his time participating in engineering projects such as the completion of a literature study for a biodiesel plant through the THRIP student program as well as assisting in the construction of the SUNfarming Food & Energy Training Centre in South

Africa that is located on the NWU engineering campus.