

## PROF JANE CATHERINE NGILA

### JOURNAL PUBLICATIONS

1. Vallerie A. Muckoya, Patrick B. Njobeh, Philiswa N. Nomngongo & **Jane C. Ngila (2020)**, Ultrasonic-Assisted Magnetic Solid-Phase Dispersive Extraction for Determination of Chlorpyrifos and Triclosan in Wastewater Samples prior to Liquid Chromatography Tandem Mass Spectrometry Detection, *Chromatographia* **83**, (2020), 373–383.  
[DOI:10.1007/s10337-019-03848-0](https://doi.org/10.1007/s10337-019-03848-0). **Impact Factor (1.552 in 2018/2019)**.
2. VA Muckoya, PN Nomngongo, **JC Ngila (2020)**. Determination of organophosphorus pesticides in wastewater samples using vortex-assisted dispersive liquid–liquid microextraction with liquid chromatography–mass spectrometry. *International Journal of Environmental Science and Technology* 2020 pp 1-12; (**Impact Factor (2.037 in 2017)**)  
<https://doi.org/10.1007/s13762-020-02625-z>
3. HK Okoro, SO Ayika, AC Tella, O Ajibola, **JC Ngila**, C Zvinowanda (2020). Fabrication of Zn (II) and Cu (II) supported metal-organic frameworks for removal of some 3d metals from aqueous solutions, *International Journal of Environmental Science and Technology* **17** (2), (2020), 661-672; **Impact Factor (2.037 in 2017)**.
4. Adedibu C Tella, Hussein K Okoro, Samuel O Sokoya, Vincent O Adimula, Sunday O Olatunji, Caliphs Zvinowanda, **Jane C Ngila**, Rafiu O Shaibu, Olalere G Adeyemi (2020). Synthesis, Characterization and Antifungal Activity of Fe (III) Metal-Organic Framework and its Nano-composite, *Chemistry Africa*, **3**, (2020) 119–126. ; **Impact Factor in 2019 =??**  
<https://doi.org/10.1007/s42250-019-00102-w>
5. EM Ngigi, PN Nomngongo, **JC Ngila (2019)**, Novel Z-scheme Co<sub>3</sub>O<sub>4</sub>/WO<sub>3</sub> nanocomposite performance in adsorption and photocatalytic degradation of ethylparaben and methylene blue in water. *Advances in Natural Sciences: Nanoscience and Nanotechnology* 10 (4), **2019**.  
<https://iopscience.iop.org/article/10.1088/2043-6254/ab49f6/meta>. **Impact Factor (0.94 in 2019)**
6. Vallerie A. Muckoya & Azeez O. Idris & Philiswa N. Nomngongo & **Jane C. Ngila (2019)**. Synthesized carbon nanodots for simultaneous extraction of personal care products and organophosphorus pesticides in wastewater samples prior to LC-MS/MS determination. *Analytical and Bioanalytical Chemistry*. 411, pages 6173–6187 (2019)  
<https://doi.org/10.1007/s00216-019-02009-4>. **Impact Factor (3.286 in 2019)**
7. EFC Chaúque, **JC Ngila**, SC Ray, L Ndlwana (2019). Degradation of methyl orange on Fe/Ag nanoparticles immobilized on polyacrylonitrile nanofibers using EDTA chelating agents. *Journal of Environmental Management* **236** (2019) 481-489. **Impact Factor (4.865 in 2019)**  
<https://doi.org/10.1016/j.jenvman.2019.02.023>
8. L Ndlwana, K Sikhwivhilu, RM Moutloali, **JC Ngila (2019)**. Heterogeneous Functionalization of Polyethersulfone: A New Approach for pH-Responsive Microfiltration Membranes with

Enhanced Antifouling Properties, *Journal of Membrane Science and Research*, 2019. [10.22079/JMSR.2019.99706.1238](https://doi.org/10.22079/JMSR.2019.99706.1238) **Impact Factor (1.60 in 2019)**

9. EM Ngigi, PN Nomngongo, **JC Ngila (2019)**. [Synthesis and Application of Fe-Doped WO<sub>3</sub> Nanoparticles for Photocatalytic Degradation of Methylparaben Using Visible–Light Radiation and H<sub>2</sub>O<sub>2</sub>](https://doi.org/10.1007/s10562-018-2594-y). *Catalysis Letters* **149** (1) (2019) 49-60. <https://doi.org/10.1007/s10562-018-2594-y>. **(Impact Factor 2.372 in 2019)**
10. DE Vlotman, **JC Ngila**, T Ndlovu, B Doyle, E Carleschi, SP Malinga **(2019)**. [Hyperbranched polymer membrane for catalytic degradation of polychlorinated biphenyl-153 \(PCB-153\) in water](https://doi.org/10.1016/j.reactfunctpolym.2018.12.019). *Reactive and Functional Polymers* **136** (2019) 44-57. **(Impact Factor 3.074 in 2019)** <https://doi.org/10.1016/j.reactfunctpolym.2018.12.019>
11. D Ramutshatsha-Makhwedzha, **JC Ngila**, PG Ndungu, PN Nomngongo. Ultrasound Assisted Adsorptive Removal of Cr, Cu, Al, Ba, Zn, Ni, Mn, Co and Ti from Seawater Using Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-PAN Nanocomposite: Equilibrium Kinetics. *Journal of Marine Science and Engineering* **7** (5), 133, 2019. [doi:10.3390/jmse7050133](https://doi.org/10.3390/jmse7050133) **(Impact Factor `1.800 in 2018)**
12. I Mwangi, G Kiriro, S Swaleh, R Wanjau, P Mbugua, **JC Ngila (2019)**. Remediation of degraded soils with hydrogels from domestic animal wastes. *International Journal of Recycling of Organic Waste in Agriculture*, (2019), 1-12. <https://doi.org/10.1007/s40093-019-0242-1> **(Impact Factor 0.40 in 2019)**.
13. I Mwangi, G Mbugua, R Wanjau, S Sauda, T Msagati, **JC Ngila (2019)**. Removal of Fluoride Ions in Stored Drinking Water by Triethylamine Chemically Modified Polyethylene Containers. *International Journal of Environmental Research*, February 2019, Volume 13, Issue 1,(2019) pp 175–184| <https://doi.org/10.1007/s41742-018-0163-2> **(Impact Factor 0.42 in 2019)**.
14. KG Nduta, IW Mwangi, RW Wanjau, JI Murungi, PK Mbugua, S Swaleh, **JC Ngila (2019)** Studies of Nutrients Speciation in the Solid Substrate Polystyrene Nutrients Anchored Material Using pH-Metric Method. *International Journal of Scientific Research in Science, Engineering and Technology*, 6(4), 413-422, 2019. <https://doi.org/10.32628/IJSRSET196451> **(Impact Factor 5.016 in 2017)**
15. M Onditi, G Bosire, E Changamu, **C Ngila (2019)**. Degradation of Rhodamine B Dye by Cactus Polysaccharide using Synthesized Silver Nanoparticles and Monitored by Fluorescence Excitation Emission Matrix (FEEM) Spectroscopy. *Starch-Stärke*. 71 (5-6), 1800127 , 2019. <https://doi.org/10.1002/star.201800127>. **(Impact Factor 1.795 in 2017)**
16. HK Okoro, AC Tella, OA Ajibola, C Zvinowanda, **JC Ngila (2019)**. Adsorptive removal of naphthalene and anthracene from aqueous solution with zinc and copper-terephthalate metal-organic frameworks. *Bulletin of the Chemical Society of Ethiopia* **33** (2), (2019). 229-241, **(Impact Factor 0.765 in 2019)**. <https://dx.doi.org/10.4314/bcse.v33i2.4>

17. VWO Wanjeri, S Gbashi, **JC Ngila**, P Njobeh, MA Mamo, PG Ndungu (2019). Chemical Vapour Deposition of MWCNT on Silica Coated Fe<sub>3</sub>O<sub>4</sub> and Use of Response Surface Methodology for Optimizing the Extraction of Organophosphorus Pesticides from Water. *International Journal of Analytical Chemistry* 2019. <https://doi.org/10.1155/2019/4564709> (**Impact Factor 1.682 in 2019**)
  
18. VA Muckoya, AO Idris, PN Nomngongo, **JC Ngila** (2019). Synthesized carbon nanodots for simultaneous extraction of personal care products and organophosphorus pesticides in wastewater samples prior to LC-MS/MS determination. *Analytical and Bioanalytical Chemistry*, 1-15, 2019. [DOI: 10.1007/s00216-019-02009-4](https://doi.org/10.1007/s00216-019-02009-4). (**Impact Factor 3.286 in 2019**)
  
19. HK Okoro, SO Ayika, AC Tella, O Ajibola, JC Ngila, C Zvinowanda (2019). Fabrication of Zn (II) and Cu (II) supported metal-organic frameworks for removal of some 3d metals from aqueous solutions; *International Journal of Environmental Science and Technology*, 1-12, 2019. <https://doi.org/10.1007/s13762-019-02459-4> (**Impact Factor 2.037 in 2017**)
  
20. BS Mbuli, MM Mahlambi, **CJ Ngila**, RM Moutloali (2019). Polysulfone Ultrafiltration Membranes Modified with Carbon-Coated Alumina Supported Ni-TiO<sub>2</sub> Nanoparticles for Water Treatment: Synthesis, Characterization and Application. *Journal of Membrane Science & Research*, 5 (2019) 222-232. (**Impact Factor 1.60 in 2019**). [DOI:10.22079/jmsr.2018.80046.1173](https://doi.org/10.22079/jmsr.2018.80046.1173)
  
21. Sphelele C. Sosibo, Anou M. Somboro, Daniel G. Amoako, John Osei Sekyere, Linda A. Bester, **Jane C. Ngila**, Darren D. Sun, and Hezekiel M. Kumalo (2019). Impact of Pyridyl Moieties on the Inhibitory Properties of Prominent Acyclic Metal Chelators Against Metallo-β-Lactamase-Producing Enterobacteriaceae: Investigating the Molecular Basis of Acyclic Metal Chelators' Activity. *Microbial Drug Resistance* 25 (3), 439-449, 2019 <https://doi.org/10.1089/mdr.2018.0272> (**Impact Factor 2.397 in 2019**)
  
22. GN Kiriro, IW Mwangi, S Swaleh, R Wanjau, P Mbugua, **JC Ngila** (2019). Use of Nutrient Anchored Polystyrene Substrate Soil Less Material for Growth of Crops. *International Journal of Scientific Research in Science, Engineering and Technology* 6(4) 151-163, 2019, DOI : <https://doi.org/10.32628/IJSRSET1196377>
  
23. Anthony Njuguna Matheri, Charles Mbohwa, Mohamed Belaid, Tumisang Seodigeng Cecilia Kinuthia Njenga and **Jane Catherine Ngila** (2018). Waste to energy bio-digester selection and design model for the organic fraction of municipal solid waste. *Renewable and Sustainable Energy Reviews* 82:1113-1121. [DOI: 10.1016/j.rser.2017.09.051](https://doi.org/10.1016/j.rser.2017.09.051) **Impact Factor 9.184**
  
24. EH Umukoro, N Kumar, **JC Ngila**, OA Arotiba (2018). Expanded graphite supported pn MoS<sub>2</sub>-SnO<sub>2</sub> heterojunction nanocomposite electrode for enhanced photo-electrocatalytic degradation of a pharmaceutical pollutant. *Journal of Electroanalytical Chemistry* 827, 193-203 <https://doi.org/10.1016/j.jelechem.2018.09.027> **Impact Factor (3.012 in 2015)**.

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29. VWO Wanjeri, CJ Sheppard, ARE Prinsloo, **JC Ngila**, PG Ndungu (2018). Isotherm and kinetic investigations on the adsorption of organophosphorus pesticides on graphene oxide-based silica coated magnetic nanoparticles functionalized. *Journal of Environmental Chemical Engineering* **6** (1), pages 1333-1346. <https://doi.org/10.1016/j.jece.2018.01.064> **Impact Factor (CiteScore 3.83)**.
  
30. D Ramutshatsha, **JC Ngila**, PG Ndungu, PN Nomngongo (2018). Simultaneous removal of Na, Ca, K and Mg from synthetic brine and seawater using Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> mixed oxide nanostructures: kinetics and isotherms studies. *Desalination and Water Treatment* **104**; (2018) 206-216. [doi: 10.5004/dwt.2018.21919](https://doi.org/10.5004/dwt.2018.21919) **Impact Factor (1.234 in 2018)**.
  
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33. O Mapazi, KP Matabola, RM Moutloali, **JC Ngila** (2018). High temperature thermochromic polydiacetylene supported on polyacrylonitrile nanofibers. *Polymer* **149**; 106-116. <https://doi.org/10.1016/j.polymer.2018.06.028> **Impact factor of 1.653 in 2014**

34. KM Dimpe, **JC Ngila**, PN Nomngongo (2018). Preparation and application of a tyre-based activated carbon solid phase extraction of heavy metals in wastewater samples. *Physics and Chemistry of the Earth, Parts A/B/C* **105**; 161-169. <https://doi.org/10.1016/j.pce.2018.02.005>
35. L Ndlwana, K Sikhwivhilu, R Moutloali, **JC Ngila** (2018). Microwave assisted graft synthesis and characterization of poly (methacrylic acid)-grafted polyethersulfone for preparation hydrophilic and low-fouling membranes for water ... *Physics and Chemistry of the Earth, Parts A/B/C*, Volume **106**, Pages 107-115. <https://doi.org/10.1016/j.pce.2018.05.002>
36. EH Umukoro, MG Peleyeju, AO Idris, **JC Ngila**, N Mabuba, L Rhyman (2018). [Photoelectrocatalytic application of palladium decorated zinc oxide-expanded graphite electrode for the removal of 4-nitrophenol: Experimental and computational studies.](#) *RSC Advances* **8** (19), 10255-10266. [10.1039/C8RA00180D](https://doi.org/10.1039/C8RA00180D) **Impact Factor (3.108 in 2016)**
37. N Mketi, PN Nomngongo and **JC Ngila** (2018). Environmentally friendly microwave-assisted sequential extraction method followed by ICP-OES and ion-chromatographic analysis for rapid determination of sulphur forms in coal samples. *Talanta* **182**; 567-573 [DOI 10.1016/j.talanta.2018.02.041](https://doi.org/10.1016/j.talanta.2018.02.041). **Impact Factor (8.67 in 2014)**.
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41. Odwa Mapazi, Kgabo Phillemon Matabola, Richard Moutloali, **Jane Catherine Ngila** (2017). A urea-modified polydiacetylene-based high temperature reversible thermochromic sensor: Characterisation and evaluation of properties as a function of temperature. *Sensors and Actuators B*, **252** (2017) 671–679. <http://dx.doi.org/10.1016/j.snb.2017.05.095> **Impact Factor (5.08 in 2015)**
42. MI Ikhile, M Caine, D Fotsing, C Arderne and **JC Ngila** (2017). Synthesis, characterization and biological activities of Schiff bases derived from 2-hydroxyl--3-nitrobenzaldehyde. *Journal of Chinese Pharmaceutical Sciences* 26(12). [DOI. 10.5246/jcps.2017.12.096](https://doi.org/10.5246/jcps.2017.12.096)
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45. Sandile Simelane, **Jane Catherine Ngila**, L. N. Dlamini (2017). The Fate, Behaviour and Effect of WO<sub>3</sub> Nanoparticles on the Functionality of an Aerobic Treatment Unit. *Environmental Nanotechnology, Monitoring & Management*. DOI:[10.1016/j.enmm.2017.07.007](https://doi.org/10.1016/j.enmm.2017.07.007)
46. Hussein Kehinde, Dr. Hussein K. Okoro, Julius Oluwafunso Ige, **Jane Catherine Ngila (2017)**. Fractionation Profile, Mobility Patterns and Correlations of Heavy Metals in Estuary Sediments from Olonkoro River, in Tede Catchment of Western Region, Nigeria. *Environmental Nanotechnology, Monitoring & Management*. **8(2017)**, 53-62. <http://dx.doi.org/10.1016/j.enmm.2017.04.003>
47. Mwangi IW, Wanjau RN, **Jane Catherine Ngila(2017)**. Remediation of Fluoride Laden Water by Complexation with Triethylamine Modified Waste Polythene Material. *Indian Journal of Materials Science: Mater Sci Ind J*. 2017;15(01):113. [DOI: 10.5772/65745](https://doi.org/10.5772/65745)
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49. KM Dimpe, L Nyaba, C Magoda, JC Ngila, PN Nomngongo (2017). Synthesis, modification, characterization and application of AC@ Fe<sub>2</sub>O<sub>3</sub>@ MnO<sub>2</sub> composite for ultrasound assisted dispersive solid phase microextraction of refractory metals in environmental samples. *Chemical Engineering Journal* **308**, 169-176<http://dx.doi.org/10.1016/j.cej.2016.09.079>
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51. LC Mahlalela, JC Ngila, LN Dlamini (2017). Characterization and stability of TiO<sub>2</sub> nanoparticles in industrial dye stuff effluent. *Journal of Dispersion Science and Technology* **38 (4)**, 584-593<https://doi.org/10.1080/01932691.2016.1183501> **Impact Factor (1.17 in 2015)**
52. N Kumar, BPA George, H Abrahamse, V Parashar, **JC Ngila (2017)**. Sustainable one-step synthesis of hierarchical microspheres of PEGylated MoS<sub>2</sub> nanosheets and MoO<sub>3</sub> nanorods: Their cytotoxicity towards lung and breast cancer cells. *Applied Surface Science* **396**, 8-18<https://doi.org/10.1016/j.apsusc.2016.11.027>. **Impact Factor in 2015 (3.38)**

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54. MI Ikhile, TG Barnard, **JC Ngila** (2017). Potential application of synthesized ferrocenylimines compounds for the elimination of bacteria in water. *Physics and Chemistry of the Earth, Parts A/B/C* <http://dx.doi.org/10.1016/j.pce.2017.01.022>. **Impact Factor (1.968 in 2016)**
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57. Bonani Seteni, Nomasonto Rapulenyane, **Jane Catherine Ngila**, Siyasanga Mpelane, Honze Luo (2017). Coating effect of LiFePO<sub>4</sub> and Al<sub>2</sub>O<sub>3</sub> on Li<sub>1.2</sub>Mn<sub>0.54</sub>Ni<sub>0.13</sub>Co<sub>0.13</sub>O<sub>2</sub> cathode surface for lithium ion. June 2017 *Journal of Power Sources*; [DOI: 10.1016/j.jpowsour.2017.04.008](https://doi.org/10.1016/j.jpowsour.2017.04.008) **Impact Factor (6.395 in 2017)**
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60. Lwazi Charles Mahlalela, **Jane Catherine Ngila**, L. N. Dlamini (2017). Monitoring the fate and behavior of TiO<sub>2</sub> nanoparticles: Simulated in a WWTP with industrial dye-stuff effluent according to OECD 303A. *Journal of Environmental Science and Health Part A Toxic/Hazardous Substances & Environmental Engineering* • **April 2017**. [DOI: 10.1080/10934529.2017.1305176](https://doi.org/10.1080/10934529.2017.1305176)
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62. Monisola Itohan Ikhile, Foluso Oluwagbemiga Osunsanmi, Andy R. Opoku, **Jane Catherine Ngila (2017)**. Antiplatelet aggregation activity of some ferrocenylphenylimine compounds. *Journal of Chinese Pharmaceutical Sciences* 2017, **26(6)**:404- 408.
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66. Nomvano Mketu, Philiswa Nosizo Nomngongo, **Jane Catherine Ngila (2017)**. Rapid total sulphur reduction in coal samples using various dilute alkaline leaching reagents under microwave heating: preventing sulphur emissions during coal processing. *Science and Pollution Research* · July 2017. DOI: [10.1007/s11356-017-9632-y](https://doi.org/10.1007/s11356-017-9632-y).
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