

CURRICULUM VITAE

PERSONAL DETAILS

Name: Dr. George S. Nyamato

Current Address: P.O Box 6-60100, Embu, Kenya

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Research interests: Main research interests include Organometallic Chemistry (development of homogeneous and heterogeneous catalytic systems) and syntheses of chelating agents and their investigations as extracts of heavy metals from water.

EDUCATIONAL BACKGROUND

2013-2016: PhD (Inorganic Chemistry)-**University of KwaZulu-Natal**, South Africa

Thesis: Nitrogen-donor late transition metal complexes as ethylene oligomerization catalysts.

Supervisor: **Dr. Stephen O. Ojwach**

2008-2012: MSc. (Inorganic Chemistry)-**Maseno University**, Kenya

Thesis: Coordination chemistry and liquid-liquid extraction of zinc(II), cadmium(II) and lead(II) cations with (pyrazol-1-ylmethyl)-pyridine ligands.

Supervisors: **Dr. Stephen O. Ojwach**

Prof. Alexander Okoth

2006- 2007: Post-graduate diploma in education (PGDE)-**Maseno University**, Kenya

2000- 2003: BSc. Hons. -**Kenyatta University**, Kenya

1995- 1998: K.C.S.E-Lenana School, Kenya

PUBLICATIONS

13. Jayamani, A; **Nyamato, S. G**; Ojwach, S. O. Ethylene oligomerization reactions catalyzed by homogeneous and silica immobilized N[^]O Fe(II) and Co(II) complexes. *Journal of Organometallic Chemistry* **2019**, *903* 120987. <https://doi.org/10.1016/j.jorganchem.2019.120987>
12. **Nyamato, S. G**; Ojwach, S. O. Solvent extraction of zinc(II), cadmium(II) and lead(II) cations from wastewater using synthetic chelating ligands. In *Modern and Traditional Methods of Water Resource Management in Africa* by M. Muhadir (Ed). Pp 151-163, ISBN: 9783736970410 (Print) 9783736960411 (online) Cuvillier.de
11. Ngcobo, M.; **Nyamato, G. S.**; Ojwach, S. O. Structural elucidation of N[^]O (ethylimino-methyl)phenol Fe(II) and Co(II) complexes and their applications in ethylene oligomerization catalysis. *Molecular Catalysis*, **2019**, *478*, 110590. <https://doi.org/10.1016/j.mcat.2019.110590>
10. Magubane, M. N.; **Nyamato, G. S.**; Ojwach, S. O.; Munro, O. Q. Structural, kinetic, and DFT studies of the transfer hydrogenation of ketones mediated by (pyrazole)pyridine iron(II) and nickel(II) complexes. *RSC Advances*, **2016**, *6*, 65205–65221. <https://doi.org/10.1039/C6RA12788F>
9. **Nyamato, G. S.**; Ojwach, S. O.; Akerman, M. P. Ethylene oligomerization studies by nickel(II) complexes chelated by (amino)pyridine ligands: experimental and density functional theory studies. *Dalton Transactions*, **2016**, *45*, 3407-3416. <https://doi.org/10.1039/C5DT04667J>
8. **Nyamato, G. S.**; Alam, M. G., Ojwach, S. O.; Akerman, M. P. Nickel(II) complexes bearing pyrazolylpyridines: synthesis, structures and ethylene oligomerization reactions. *Applied Organometallic Chemistry*, **2016**, *30*, 89-94. <https://doi.org/10.1002/aoc.3402>
7. **Nyamato, G. S.**; Ojwach, S. O.; Akerman, M. P. Potential hemilabile (imino)pyridine palladium(II) complexes as selective ethylene dimerization catalysts: An experimental and theoretical approach. *Organometallics* **2015**, *34*, 5647-5657. <https://doi.org/10.1021/acs.organomet.5b00860>

6. **Nyamato, G. S.**; Alam, M. G.; Ojwach, S. O.; Akerman, M. P. (Pyrazolyl)-(phosphinoyl)pyridine iron(II), cobalt(II) and nickel(II) complexes: Synthesis, characterization and ethylene oligomerization studies. *Journal of Organometallic Chemistry* **2015**, 783, 64-72. <https://doi.org/10.1016/j.jorganchem.2015.02.015>
5. **Nyamato, G. S.**; Ojwach, S. O.; Akerman, M. P. Unsymmetrical (pyrazolylmethyl)-pyridine metal complexes as catalysts for ethylene oligomerization reactions: Role of solvent and co-catalyst in product distribution. *Journal of Molecular Catalysis A: Chemical* **2014**, 394, 274–282. <https://doi.org/10.1016/j.molcata.2014.07.018>
4. **Nyamato, G. S.**; Ojwach, S. O.; Akerman, M. P. Packing forces in dichloridobis(3,5-diphenyl-1*H*-pyrazole-*k*N²)cobalt(II) dichloromethane hemisolvate. *Acta Crystallographica Section C* **2014**, C70, 780-783. <https://doi.org/10.1107/S2053229614015411>
3. Njoroge, M. W.; Ojwach, S. O.; **Nyamato, G. S.**; Omondi, B.; Darkwa, J. Coordination behavior and binding properties of (3,5-dimethyl-1*H*-pyrazol-1-yl)ethanol with Cu(II), Zn(II), Cd(II), and Pb(II) metals. *Journal of Coordination Chemistry* **2013**, 66:9, 1626-1634. <https://doi.org/10.1080/00958972.2013.784904>
2. Ojwach, S. O.; **Nyamato, G. S.**; Omondi, B.; Darkwa, J.; Okoth, A. O. Multidentatebis(pyrazolylmethyl)pyridine ligands: coordination chemistry and binding properties with zinc(II) and cadmium(II) cations. *Journal of Coordination Chemistry* **2012**, 65:2, 298-307. <https://doi.org/10.1016/j.ica.2012.07.005>
1. Ojwach, S. O.; **Nyamato, G. S.**; Omondi, B.; Darkwa, J.; Okoth, A. O. Chelating (pyrazolylmethyl)pyridine ligands: Coordination chemistry and binding properties with zinc(II) and cadmium(II) cations. *Inorganica Chimica Acta* **2012**, 392, 141–147. <https://doi.org/10.1016/j.ica.2012.07.005>

CONFERENCE PRESENTATIONS

4. George S. Nyamato and Stephen O. Ojwach, Durban, South Africa, **5th May -9th May 2019**, *Solvent extraction of zinc(II), cadmium(II) and lead(II) cations from wastewater using synthetic chelating ligands.*

3. George S. Nyamato and Stephen O. Ojwach, 43rd SACI National Convention 2018, CSIR-ICC in Pretoria, South Africa, **2nd - 7th December 2018**, *Ethylene oligomerization studies by nickel(II) complexes chelated by (amino)pyridine ligands*.
2. George S. Nyamato, Stephen O. Ojwach and Matthew P. Akerman, 9th International KCS conference, United States International University-Africa, Nairobi, **9th May -12th May 2017**, *Iminopyridine Palladium(II) Complexes: Synthesis, Characterization, DFT Studies and Precursors for Ethylene Oligomerization*.
1. George S. Nyamato, Stephen O. Ojwach and Matthew P. Akerman, SACI INORG 2015, Rhodes University, South Africa, **28th June -2nd July 2015**, *(Imino)pyridine palladium(II) complexes: Experimental, theoretical studies and as ethylene oligomerization catalysts*.

TECHNICAL SKILLS

- ✓ Use of Schlenk and Vacuum line in the synthesis of air sensitive compounds.
- ✓ Competence in the use NMR, FT-IR, GC-MS, LC-MS, TLC and column chromatography as well as high pressure reactor.

WORK EXPERIENCE

Jan. 2017-To date: Lecturer, University of Embu.

Jan. 2016-Dec 2016: Part-time lecturer (Jaramogi Oginga Odinga University of Science and Technology, Bondo and Kisii University)

August 2011 - June 2012:-Part-time lecturer (Kisii University, Kenya)

May 2003 - Aug. 2008:-Chemistry and Mathematics teacher (Apostolic Carmel Girls' secondary School, Nairobi)

REFEREES

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