

## Curriculum vitae

**Name: Selina Ama Saah**

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### Education

**August 2013 – July 2018**

PhD Inorganic Chemistry, Department of Chemistry, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.

**August 2011 – June 2013**

MPhil. Polymer Science and Technology, Department of Chemistry, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.

**August 2006 – June 2010**

B.Sc Chemistry, Department of Chemistry, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.

### Work experience

**February 2018 – date**

**Lecturer**, Department of Chemical Sciences, University of Energy and Natural Resources (UENR), Sunyani, Ghana. Teach main group and transition elements, materials science, molecular spectroscopy, nuclear and radiochemistry, instrumental analyses, polymer chemistry and technology, symmetry and group theory at undergraduate levels. Also demonstrates laboratory practicals to 2<sup>nd</sup> and 3<sup>rd</sup> year undergraduates.

**August 2014 – July 2017**

**Laboratory Demonstrator (Part time)** - Department of Chemistry, Kwame Nkrumah University of Science and Technology Kumasi-Ghana. Prepare and demonstrate laboratory procedures for undergraduate and post graduate students in analytical and polymer chemistry.

**March 2015 - December 2015**

**Technician (Part time)** - Central Laboratory, Kwame Nkrumah University of Science and Technology Kumasi-Ghana. Develop standard operating procedure for the Central laboratory. Also digest samples to be analysed using atomic absorption spectroscopy.

**May 2013 – August 2013**

**Researcher:** Platinum seal company limited-Ghana. Research into polymer modified bitumen.

**August 2010 – July 2011**

**Teaching Assistant:** Department of Chemistry, Kwame Nkrumah University of Science and Technology Kumasi-Ghana. Organize tutorials for 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate chemistry students in nuclear and inorganic chemistry. Assist lecturers in research. Also demonstrate analytical and inorganic laboratory practicals to undergraduate chemistry student.

## Awards

### **January 2017- May 2017**

Academic Visitor, University of Manchester, School of Chemistry, United Kingdom. Research into the single source routes to the synthesis of lead chalcogenide nanoparticles and thin films.

### **November 2015- March 2016**

Academic Visitor, Department of Chemistry, University of Zululand, South Africa. Research into the single source routes to the synthesis of lead and bismuth chalcogenide nanoparticles.

### **February 2014- September 2014**

Academic Visitor, University of Manchester, School of Chemistry, United Kingdom. Research into the single source routes to the synthesis of binary and ternary lead chalcogenide thin films.

### **June 2012- November 2012**

Academic Visitor, University of Manchester, School of Chemistry, United Kingdom. Research into the single source routes to the synthesis of binary lead chalcogenide nanoparticles.

## Society membership

Associate member of the Royal Society of Chemistry (U.K.)

Member of the Ghana Chemical Society

Member of the Ghana Science Association-Sunyani Branch

## Publications

1. Patience A. Kotei, Nathaniel O. Boadi, **Selina A. Saah**, and Michael Baah Mensah, Synthesis of Nickel Sulfide Thin Films and Nanocrystals from the Nickel Ethyl Xanthate Complex, *Advances in Materials Science and Engineering*, 2022, 2022, doi.10.1155/2022/6587934.
2. Nathaniel O. Boadi, Mercy Badu, Nii K. Kortei, **Selina A. Saah**, Benjamin Annor, Michael B. Mensah, Harry Okyere, Alphonse Fiebor, Nutritional composition and antioxidant properties of three varieties of carrot (*Daucus carota*), *Scientific African*, 12, 2021, doi.org/10.1016/j.sciaf.2021.e00801.
3. **Selina A. Saah**, David Adu-Poku, Phytochemical, Proximate, and Vitamin C Content in *Morinda citrifolia* (Noni), *Journal of Tropical Pharmacy and Chemistry*, 2021, 5(3), doi.org/10.25026/jtpc.v5i3.274.
4. Nathaniel O. Boadi, Mawuli Degbevi, **Selina A. Saah**, Mercy Badu, Lawrence S. Borquaye, Nii K. Kortei, Antimicrobial properties of metal piperidine dithiocarbamate complexes against *Staphylococcus aureus* and *Candida albicans*, 2021,12, doi.org/10.1016/j.sciaf.2021.e00846
5. **Selina A. Saah**, David Adu-Poku, Nathaniel O. Boadi, Heavy metal contamination and water quality of selected fish ponds at Sunyani, Ghana: A comparison with WHO standards, *Chemistry International*, 2021, 7(3), 181-187
6. David Azanu, David Adu-Poku, **Selina A. Saah**, William O. Appaw, Prevalence of Pharmaceuticals in Surface Water Samples in Ghana, *Journal of Chemistry*, 2021, 2021, doi.org/10.1155/2021/7829477

7. Nathaniel O. Boadi, **Selina A. Saah**, Johannes A.M Awudza, Synthesis of a novel single-source precursor for the production of lead chalcogenide thin films *Journal of Chemistry* 2020, <https://doi.org/10.1155/2020/8349549>.
8. Lawrence S. Borquaye, **Selina A. Saah**, David Adu-Poku, Lorinda Adu-Gyamfi, Kennedy Bitian, Winefred Bambil, Anti-inflammatory, antioxidant and total phenolic content of the ethanolic extracts of *Celtis africana* Burm. f. *Current Science*, 2020, 6 (3), 43-49.
9. David Adu-Poku, **Selina A. Saah**, Jacob K. Agbenorhevi, Modeling the Kinetics of Potassium Diffusion in Estima Potato under Different Leaching Conditions, *International Journal of Food Science* 2020, [doi.org/10.1155/2020/1876463](https://doi.org/10.1155/2020/1876463).
10. Nathaniel O. Boadi, **Selina A. Saah**, Michael B. Mensah, Johannes A.M Awudza, Aerosol-Assisted Chemical Vapour Deposition of Lead Chalcogenide Thin Films from [Pb ((SeP<sup>i</sup>Pr<sub>2</sub>)<sub>2</sub>N)(S<sub>2</sub>CNHexMe)], *Advances in Materials Science and Engineering* 2020, [doi.org/10.1155/2020/8881921](https://doi.org/10.1155/2020/8881921).
11. Nathaniel O. Boadi, **Selina A. Saah**, Frimpomah Baa-Poku, Ebenezer A. Mensah, Malik Addo, Safety of borehole water as an alternative drinking water source, *Scientific African* 2020, 10, e00657, [doi.org/10.1016/j.sciaf.2020.e00657](https://doi.org/10.1016/j.sciaf.2020.e00657).
12. **Selina A. Saah**, Ismaila Emahi, Patrick O. Sakyi, Bioassay of some plants with potential activities against HIV/AIDS and other opportunistic infections, *Current Science* 2020, 6 (3), 50-56.
13. **Selina A. Saah**, Nathaniel O. Boadi, David Adu-Poku and Christopher Wilkins, Lead ethyl dithiocarbamates: efficient single-source precursors to PbS nanocubes, *Royal Society Open Science*, 2019, 6: 190943-190950.
14. Musa Seidu-Makinca, **Selina A. Saah**, Nathaniel O. Boadi, Mercy Badu, Michael B. Mensah, and Johannes A. M. Awudza, Characterization of latex from trees in the Bobiri forest of Ghana, *Current Science Perspectives*, 2019, 5 (3), 40-47
15. **Selina A. Saah**, Malik D. Khan, Johannes A. M. Awudza, Neerish Revaprasadu, and Paul O'Brien, A facile green synthesis of ultrathin PbS nanorods, *Journal of Inorganic and Organometallic Polymers and Materials*, 2019. 1-8.
16. **Selina A. Saah**, Nathaniel O. Boadi and Christopher Wilkins, Deposition of PbS thin films from lead hexadecyl and octadecyl xanthate complexes using the spin coating method, *MRS Advances*, 2019, 4 (11-12), 733-742.
17. **Selina A. Saah**, Malik D. Khan, Paul D. McNaughter, Johannes A. M. Awudza, Neerish Revaprasadu and Paul O'Brien, Facile synthesis of a PbS<sub>1-x</sub>Se<sub>x</sub> (0 ≤ x ≤ 1) solid solution using bis (N, N-diethyl-N'-naphthoylchalcogenoureato) lead (II) complexes, *New Journal of Chemistry*, 2018, 42, 16602-16607.
18. **Selina A. Saah**, Paul D. McNaughter, Mohammed A. Malik, Johannes A. M. Awudza, Neerish Revaprasadu, Paul O'Brien. PbS<sub>x</sub>Se<sub>1-x</sub> thin films from the thermal decomposition of lead(II) dodecylxanthate and bis(N,N-diethyl-N'-naphthoylselenoureato)lead(II) precursors, *Journal of Materials Science*, 2018, 53 (6), 4283-4293.
19. Paul D. McNaughter, **Selina A. Saah**, Masood Akhtar, Khadijat Abdulwahab, M. Azad Malik, James Raftery, Johannes A. M. Awudza, and Paul O'Brien. The effect of alkyl chain length on the structure of lead (II) xanthates and their decomposition to PbS in melt reactions. *Dalton Transaction*, 2016, 45, 16345-16353.
20. Esther J. Alorkpa, Nathaniel O. Boadi, Mercy Badu and **Selina A. Saah**. Phytochemical screening, antimicrobial and antioxidant properties of assorted *Carica papaya* leaves in Ghana. *Journal of Medicinal Plants Studies*, 2016; 4(6), 193-198.
21. Michael B. Mensah, Nathaniel O. Boadi, Frimpomah Baa-Poku, David D. Wemegah, Mercy Badu, **Selina A. Saah** and Bernard Osei-Dei. Physicochemical properties and

- levels of heavy metals in selected rivers within the Kumasi Metropolis of Ghana. *International Journal of Science and Technology*, 2016, 5(12), 616-623.
22. Edward A. Lewis, Paul D. McNaughter, Zhongjie Yin, Yiqiang Chen, Jack R. Brent, **Selina A. Saah**, James Raftery, Johannes A. M. Awudza, M. Azad Malik, Paul O'Brien, and Sarah J. Haigh. *In situ* synthesis of PbS nanocrystals in polymer thin films from lead(ii) xanthate and dithiocarbamate complexes: evidence for size and morphology control. *Chemistry of Materials*, 2015, 27 (6), 2127–2136.
  23. Nathaniel O. Boadi, **Selina A. Saah**, John K. Mensah, Mercy Badu, Sylvester Addai-Arhin and Michael B. Mensah. Phytoconstituents, antimicrobial and antioxidant properties of the leaves of *Persea americana* Mill cultivated in Ghana. *Journal of Medicinal Plants Research*, 2015, 9(36), 933- 939.
  24. Mohammed Abdul, **Selina A. Saah** and Nathaniel O. Boadi. (2014). Physicochemical and Microbial properties of Sachet Water in the Kumasi Metropolis of Ghana. *Ghana Journal of Chemistry*, 2014, 2(1), 1-10.

### **Instrumental know-how:**

X-ray diffraction, infrared spectroscopy, nuclear magnetic resonance, elemental analyser, scanning electron microscopy, energy dispersive x-ray spectroscopy, mass spectroscopy, thermogravimetric analyser, atomic absorption spectroscopy and high performance liquid chromatography, gas chromatography mass spectrometer, microelemental analyser.

### **Software know-how:**

Microsoft office (word, excel, powerpoint, outlook), Chem draw, Origin (graphical software), PowderX (XRD software), X PowderX (XRD software), ACD labs (NMR software), ImageJ (morphological software), X'pert Highscore (XRD identification software), Mercury (crystallographic software), Crystal maker (crystallographic software), Mendeley (Referencing software) and Endnote (Referencing software).

### **Referees:**

Dr. David Adu-Poku  
Department of Chemical Sciences  
University of Energy and Natural Resources  
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Prof. Nathaniel Owusu Boadi  
Department of Chemistry  
Kwame Nkrumah University of Science and Technology  
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