

Curriculum Vitae (C.V)



Joseph Asankomah Bentil

Department of Biochemistry and Biotechnology, KNUST, Kumasi

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Date of birth: 14th May 1979

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Google Scholar: <https://scholar.google.co.uk/citations?hl=en&user>

Researchgate: https://www.researchgate.net/profile/Joseph_Bentil2

Competencies

Technical

- Production of enzymes from agro-industrial residues
- Exploitation of microbes for environmental applications
- Microbiological techniques for discovery of novel microbes
- Microbial fermentation for production of value-added products
- Design of cheap and efficient technologies for industrial scale applications
- Scanning Electron Microscopy
- On-site enzyme production for bioethanol production

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Personal

- Curious and innovative
- Work with zeal and passion
- Results orientated
- Good communication skills and team leader

Education

- 01.2015 – 12.2017 **Ph. D. degree**
Department of Chemical and Biochemical Engineering
Center for Bioprocess Engineering
Technical University of Denmark, Lyngby, Denmark
- 09.2009 – 09.2012 **Master's degree**
Department of Biochemistry and Biotechnology
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana
- 08.2000 – 06.2004 **Bachelor's degree**
Department of Biochemistry and Biotechnology
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana

Primary Experience

- 08.2004 – 07.2005 **Teaching Assistant**
Department of Biochemistry and Biotechnology
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana
- 05.2006 – 02.2015 **Principal Laboratory Technician**
Department of Animal Science
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana

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Secondary experience

01. 08.2019 – 31.07.2020

Part-time Lecturer

Department of Biochemistry and Biotechnology
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana

01.01.2021 - date

Lecturer

Department of Biochemistry and Biotechnology
Kwame Nkrumah University of Science and Technology
Kumasi, Ghana

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Publications

Bentil JA, Dzogbefia VP, Alemawor F. (2015) Enhancement of the nutritive value of cocoa (*Theobroma cacao*) bean shells for use as feed for animals through a two-stage solid-state fermentation with *Pleurotus ostreatus* and *Aspergillus niger*. IJAMBR; 3: 20-30

Ofosu-Appiah C, Zakpaa H, Mak-Mensah E, **Bentil JA**. (2016) Evaluation of Ethanol Production from Pito Mash using *Zymomonas mobilis* and *Saccharomyces cerevisiae*. African. J. Biotechnol. 15 (30): 1613-1620

Rhein-Knudsen, N, Ale, MT, Rasmussen, S, Kamp, SK, **Bentil, JA**, Meyer, AS. (2018) Alkaline extraction of seaweed carrageenan hydrocolloids using cocoa pod husk ash. Biomass Conversion and Biorefinery, 1-7, <https://doi.org/10.1007/s13399-018-0305-y>

Bentil JA, Thygesen A, Mensah M, Lange L, Meyer AS. (2018) Cellulase production by White-rot Basidiomycetous Fungi: Solid-state against Submerged Cultivation. Appl Microbiol Biotechnol. 1-13, <https://doi.org/10.1007/s00253-018-9072-8>

Bentil, JA., Thygesen, A., Lange, L., Mensah, M., Meyer, AS. (2019). Green seaweeds (*Ulva fasciata* sp.) as nitrogen source for fungal cellulase production. World J Microbiol Biotechnol. 35: 82. <https://doi.org/10.1007/s11274-019-2658-1>

Thygesen A., Ami J., Fernando D., **Bentil JA.**, Daniel G., Mensah M., Meyer AS. (2020). Microstructural and carbohydrate compositional changes induced by enzymatic saccharification of green seaweed from West Africa. Algal Research, 47 (2020) 101894. <https://doi.org/10.1016/j.algal.2020.101894>

Bentil, JA. Biocatalytic Potential of Basidiomycetes: Relevance, Challenges and Research Interventions in Industrial Processes. Scientific African. J. 11 (2021). <https://doi.org/10.1016/j.sciaf.2021.e00717>

Bentil, JA. Ami, J. In-house enzyme blends from *Polyporus ciliatus* CBS 366.74 for enzymatic saccharification of pretreated corn stover. ICBB Conference (Submitted)

Acheampong, NA., Akanwariwiak, WG, Mensah, MY., Fei-Baffoe, B., Borquaye, LS., **Bentil, JA.**, Offei, F. Optimization of Hydrolases Production from Cassava peels by *Trametes polyzona* BKW-001. Applied Microbiol. and Biotech. (Submitted)

Acheampong, NA., Akanwariwiak, WG, Mensah, MY., Fei-Baffoe, B., Borquaye, LS., **Bentil, JA.**, Offei, F. Isolation and Characterization of Lignocellulose Degrading Fungi from a Newly Improved Cassava Variety (CRI-Abrabopa) in Ghana. Scientific African Journal (Submitted)

Acheampong, NA., Akanwariwiak, WG, Mensah, MY., Fei-Baffoe, B., Borquaye, LS., **Bentil, JA.**, Offei, F. Bioconversion of Cassava Peels to Fermentable Sugars for Bioethanol Production using On-site Tailored Enzyme Production Approach. Scientific African Journal (Submitted)

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Conferences and Workshops

Sustain Conference, Theme: Creating Technology for a Sustainable Society, Technical University of Denmark, DTU, Denmark, November 30th, 2016, Poster Presentation: **Cellulose-degrading enzymes from White-rot Fungi for Biomass Degradation**

22nd International Seaweed Symposium. Theme: **Academia meets Industry**. June 19-24, 2016, Copenhagen, Denmark

Workshop on Sustainable Development for Production and Use of Seaweed Biomass in Ghana, Center for Scientific and Industrial Research-Crops & Water Institute (CSIR-CWI), Accra, October 17th, 2017, Poster Presentation: **Sustainable Biorefinery using Seaweeds as Substrates and Nitrogen boosters for Enzyme Production**

National Cassava Symposium. Theme: **Harnessing Cassava's Potential for National Development Through Industrialization**. Accra, December 11th – 12th, 2018, Poster Presentation: **Innovative Value Chain of Cassava for Sustainable Bioethanol Production using On-site Enzyme Technology**

Training Workshop for Practicing and Prospective Pig Farmers (Facilitator). Topic: **Indigenous Microorganisms (IMOs) Technology: An innovative Approach for Efficient Monogastric Feeding**. STC Conference Centre, Accra, May 16th, 2019.

Conference – “Gender Mainstreaming in Higher Education and Research: Behind the Scenes” 6th to 7th December, 2019. Kumasi, Ghana. **Certificate of Participation**

GSA Webinar 2020/9th GSA Research Seminar and Poster Presentations. Theme: “Using Science, Technology and Innovation in the Current Pandemic and Beyond”. 28th – 29th July, 2020. **Certificate of Participation**

Elsevier Workshop on SciVal. Theme: Analyzing Research Performance and Research Trends using SciVal. IDL Conference Centre (Poolside), KNUST, Kumasi, Ghana. 24th October 2019. **Certificate of Participation**

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Extra information

Languages

Fanti - Native

Twi – Quiet good

English – Fluent in speaking and writing

Danish – Basics

Supervisory Role

Supervisor, 10 Undergraduate Students, 1 Masters Student, Department of Biochemistry and Biotechnology

Co-supervisor, Bachelor and Master's project, Technical University of Denmark, DTU

Extra-curriculum activities (Appointments/Committees)

Assistant Examination Officer, Department of Biochemistry and Biotechnology

Member, DTU PhD Committee of Chemistry, Biotechnology and Chemical Engineering

Member, DANIDA and African Union Research Grant Application Team

Member, DTU Chemical and Biochemical Engineering Organizing Committee

Member, Committee for Students' Field Trip and GHABSA Coordinator

Member, Conference and Workshop Planning Committee

Member, Microbial Biochemistry Laboratory Management Committee

Member, New Programmes Implementation Committee

Member, Product Development and Commercialization Unit

Member, Research and Development, and Proposal Grant Writing

Member, Short Course Development and Implementation Committee

Member, Website, Media and Visibility Management Committee

Member, Production of Hand Sanitizer, Department of Biochemistry and Biotechnology