

ADEBOWALE, Abdul-Razaq A.

Degree: ND., B.Sc. M.Sc., Ph.D.

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Department: Food Science & Technology

Academic Rank: Lecturer I

Current position:

Research interest: Value addition to roots and tuber crops
Effect of processing on functionality and nutritional content of root and tuber crops
Process optimization and rheological modeling
Fe Fortification of traditional cassava products in Nigeria.



Detailed Resume

ACADEMIC DEGREES WITH DATE

- Ph.D. 2006
- M.Sc. 2002
- B.Sc. 1999
- N.D. 1994

INSTITUTIONS ATTENDED WITH DATE

- University of Agriculture, Abeokuta, Ogun State 2006
- University of Agriculture, Abeokuta, Ogun State 2002
- University of Agriculture, Abeokuta, Ogun State 1999
- Federal Polytechnic, Ilaro, Ogun State 1994

MEMBERSHIP OF PROFESSIONAL BODIES

- Nigerian Institute of Food Science and Technology (NIFST) Member
- Agricultural Society of Nigeria (ASN) Member
- Nutritional Society of Nigeria Member
- West African Institute of Food Science and Technology, Member
- Member, South African Association of Food Science and Technology (SAFoST)
- Member, International Union of Food Science and Technology (IuFOST)
- Member, Young Professionals' Platform for Agricultural Research for Development (YPARD)

PRIZES, HONOURS, NATIONAL AND INTERNATIONAL RECOGNITION

- **Most Favourite Lecturer** awarded by the Exquisite Set '08, Department of Food Science and Technology, University of Agriculture, Abeokuta.
- **Travel grant** by International Institute of Tropical Agriculture, Ibadan (IITA) to attend the 7th African Crop Science Society Conference, Entebbe, Uganda, 5 - 9th December 2005.
- A.G. Leventis (Egba) Scholarship for Postgraduate Students (Ph.D), 2002/03 & 2003/04 Academic Sessions.
- Federal Government Scholarship (Postgraduate), 2001/2002 Academic Session.
- A.G. Leventis (Egba) Scholarship for Postgraduate Students (M.Sc), 99/2000 & 2000/01 Academic Sessions.
- Best project Student (National Diploma), 1992/93 Academic Session.
- Director of Schools Award for 1992/93 Academic Session (2 consecutive Semesters).

- Overall best Student in Agricultural Science and Economics (Secondary School), 1988

COURSES TAUGHT

Undergraduate courses taught:

- Introduction to Food Science and Technology FST 201
- Food Rheology FST 310
- Unit Operations in Food Processing FST 312
- Food Plant Design and Pilot Demonstration FST 409
- Cereals and Tuber Processing and Technology FST 501
- Food Additives, Toxicology and Safety FST 507
- Food Machinery Design and Construction FST 511
- Student Project and Seminar FST 599

Postgraduate courses taught:

- Fundamentals of Food Processing FTD 703
- Food Rheology and Fluid Flow FTD 704
- Food Chemical Toxicology FST 724
- Advanced Food Rheology FST 730

RESEARCH CONDUCTED

- Effects of roasting method on the sorption isotherms of tapioca grits and rheological properties of the meal.
- Effect of texture modifiers on the physicochemical and sensory properties of dried fufu.
- Varietal differences in functional properties of cowpea (*Vigna unguiculata*) starches.
- Development of novel food products from IITA mandate crops (Cassava, Yam, banana, plantain, cowpea and Maize) and transfer of the technology to the public for both improved food security and livelihoods.
- Varietal differences in the physical properties and proximate composition of elite sesame seeds.
- Storage stability of iron- fortified maize flour

PUBLICATIONS

Publications in Learned Journals

1. Soladoye, O.P., Ola, I.A., **Adebowale, A. A.** and Sanni, L.O. (2010). **Development and performance evaluation of a motorized globulator for tapioca production.** *International Food Research Journal*, 17: xxx. In press.
2. **Adebowale, A. A.**, Sanni, S.A. Karim, O. R and Ojoawo, J. A. (2010). **Malting characteristics of Ofada rice: chemical and sensory qualities of malt from ofada rice grains.** *International Food Research Journal*, 17: 83-88.

3. Karim, O. R. and Adebowale, A. A. (2009). **A dynamic method for kinetic models of ascorbic acid degradation during air dehydration of pretreated pineapple slices.** *International Food Research Journal*, 16: 555-560.
4. Kosoko, S. B., Sanni, L. O. Adebowale, A. A., Daramola, A. O. and Oyelakin, M. O. (2009) **Effect of period of steaming, and drying temperature on chemical properties of cashew nut.** *African Journal of Food Science*, Vol. 3(6): 156-164
5. Akanbi, T. O., Nazamid, S. and Adebowale, A. A. (2009). **Functional and pasting properties of a tropical breadfruit (*Artocarpus altilis*) starch from Ile-Ife, Osun State, Nigeria.** *International Food Research Journal*, 16: 151-157.
6. Sanni, S.A., Adebowale, A.A, Olayiwola, I.O. and. Maziya-Dixon' B. (2008). **Chemical composition and pasting properties of iron fortified maize flour.** *Journal of Food, Agriculture and Environment*, 6(3&4), 172 – 175.
7. Sanni, L. O, Adebowale, A. A. Awoyale, W. and Fetuga, G.O. (2008) **Quality of gari (roasted cassava mash) in Lagos, Nigeria.** *Nigerian Food Journal*, 26 (2), 125 – 134.
8. Adebowale, A. A., Sanni, L. O., and Onitilo, M.O. (2008). **Chemical composition and pasting properties of tapioca grits from different cassava varieties and roasting methods.** *African Journal of Food Science*, 2, 077 - 082.
9. Adebowale, A. A, Sanni, S. A, and Oladapo, F. O (2008) **Chemical, functional and sensory properties of instant yam - breadfruit flour.** *Nigerian Food Journal*, 26 (1), 2 – 12.
10. Sanni, L.O, Adebowale, A. A. Maziya-Dixon, B and Dixon, A.G.O. (2008). **Chemical composition and Pasting Properties of CMD resistant cassava clones planted at different locations.** *Journal of Food, Agriculture and Environment*, 6(2), 97 – 104.
11. Kareem S. O. and A. A. Adebowale (2007). **Clarification of orange juice by crude fungal pectinase from citrus peel.** *Nigerian Food Journal*. 25 (1), 130 - 136.
12. Maziya-Dixon. B.; A.G.O. Dixon and A. A. Adebowale (2007). **Targeting different end uses of cassava: genotypic variations for cyanogenic potentials and pasting properties.** *International Journal of Food Science and Technology*. 42 (8), 969 – 976.
13. Adebowale, A. A. Sanni, L. O. Awonorin, S. O, Daniel I. and A. Kuye (2007) **Effect of cassava varieties on the sorption isotherm of tapioca grits.** *International Journal of Food Science and Technology*, 42 (4), 448–452.
14. Sanni, L. O.; Adebowale, A.A.; Filani, T. A.; Oyewole, O. B.; and A. Westby (2006). **Quality of flash and rotary dryer dried fufu flour.** *Journal of Food, Agriculture and Environment*, 4: (3&4), 74 - 78.
15. Sanni, S.A; Adebowale, A.A. and Yusuf, A.S (2006). **Physico-chemical, culinary and functional properties of different improved Nigerian cowpea varieties.** *Nigerian Food Journal*, 24: (1), 34 – 41.
16. Adebowale, A. A., L. O. Sanni, and Ayoade Kuye (2006). **Effect of roasting methods on sorption isotherm of tapioca grits.** *Electronic Journal of Environmental, Agricultural and Food Chemistry* 5 (6), 1649-1653
17. Adebowale, A.A; Sanni, L.O; Awonorin, S.O. (2005). **Effect of texture modifiers on the physicochemical and sensory properties of dried fufu.** *Food Science and Technology International*. 11 (5), 323 – 395.

18. Sanni, L. O., Kosoko, S. B., **Adebowale, A. A.** and Adeoye, R. J. (2004). **The influence of palm oil and chemical modification on the pasting and sensory properties of fufu flour.** *International Journal of Food Properties*, 7 (2): 229 – 237.
19. Henshaw, F.O. and **Adebowale, A. A.** (2004). **Amylograph Pasting Properties and Swelling Power of Six Varieties of Cowpea (*Vigna unguiculata*) Starch.** *Nigerian Food Journal*, 22: 33 – 39.

Books and Monographs

Books

1. L. Sanni, **A. A. Adebowale**, A. Dipeolu, M. A. Idowu, I. O. Olayiwola, I. O. O. Aiyelaagbe, M. Egunlety and S. Fomba. Eds (2009). The proceedings of the 1st training workshop on the use of statistical software for data analysis and documentation in food research. University of Agriculture, Abeokuta, Nigeria. AAU/MRCI/08/F07/P33 project pp 188. ISBN: 978-978-49396-9-0
2. L. Sanni, **A. A. Adebowale**, M. A. Idowu, M. K. Sawi, N. R. Kamara, I. O. Olayiwola, M. Egunlety, A. Dipeolu, I. O. O. Aiyelaagbe, and S. Fomba (2009). West African foods from root and tuber cropsn(A brief review). University of Agriculture, Abeokuta, Nigeria. AAU/MRCI/08/F07/P33 project pp 82. ISBN: 978-978-49396-8-3.

Monographs

1. M. A. Idowu, **A. A. Adebowale**, L. Sanni, A. Dipeolu, I. O. Olayiwola, I. O. O. Aiyelaagbe, M. Egunlety and S. Fomba. (2009). Recommended curriculum for food science and technology in tertiary institutions (universities) in West Africa, University of Agriculture, Abeokuta, Nigeria. AAU/MRCI/08/F07/P33 project pp 35. ISBN: 978-978-49396-6-9.
2. I. O. Olayiwola, L. Sanni, A. Dipeolu, M. A. Idowu, **A. A. Adebowale**, I. O. O. Aiyelaagbe, M. Egunlety and S. Fomba. (2009). Recommended curriculum for nutrition and dietetics in tertiary institutions (universities) in West Africa, University of Agriculture, Abeokuta, Nigeria. AAU/MRCI/08/F07/P33 project pp 27. ISBN: 978-978-49396-7-6.
3. I. O. O. Aiyelaagbe, L. Sanni, A. Dipeolu, M. A. Idowu, I. O. Olayiwola, **A. A. Adebowale**, M. Egunlety and S. Fomba. (2009). Recommended curriculum for organic agriculture in tertiary institutions (universities) in West Africa, University of Agriculture, Abeokuta, Nigeria. AAU/MRCI/08/F07/P33 project pp 32. ISBN: 978-978-49396-5-2.

Unpublished Conference, workshops/Seminars

1. **Adebowale, A. A.** (2009). Product quality management: an essential ingredient to national rebranding. A paper presented at 2009 annual food week seminar of the Nigerian Association of Food Science and Technology, Moshood Abiola Polytechnic, Abeokuta, 22nd October 2009.
2. **Adebowale, A. A.** (2009). Rudiments of 2D and 3D graphical presentations using some software packages. A paper presented at the UAC Foods Training Workshop on “Manufacturing Excellence”. Organized by the Nigerian Institute of Food Science and Technology, 22nd - 24th June 2009.
3. **Adebowale, A. A.** (2009). Rheological modelling. A paper presented at the national training workshop on simulation modelling and computer applications in R & D. Organised by the Nigerian Institute of Food Science and Technology (NIFST) in collaboration with Ag Leventis Memorial Centre for Learning (LEMCEL), University of agriculture, Abeokuta, 2nd – 4th July 2008.

Articles in Press

1. **Adebowale, A. A., Sanni, S. A., Karim, O. R. and Ojoawo, J. A. Malting characteristics of *Ofada* rice: chemical and sensory qualities of malt from *Ofada* rice grains.** *International Food Research Journal*.
2. **Karim, O. R. and Adebowale, A. A. A dynamic method for kinetic models of ascorbic acid degradation during air dehydration of pretreated pineapple slices.** *International Food Research Journal*.

Articles Submitted for Publication

1. **Adebowale, A.A, Sanni, L.O, and Henshaw, F. O. Rheology of tapioca meal I: Effect of grit concentration and temperature.** *International Journal of Food Engineering*.
2. **Adebowale, A. A., Sanni, S. A. and Falore, O. A. Varietal differences in the physical properties and proximate composition of elite sesame seeds.** *Submitted to Journal of Bioscience*.
3. **Soladoye, O. P., Ola, I. A., Adebowale, A. A., and Sanni, L. O. Design, fabrication and test performance of an electromechanically driven globulator for tapioca production.** *Submitted to International Food Research Journal*.

Conference Proceedings and Workshop Papers Presented

1. **Adebowale, A. A., Sanni, L. O. and Olurin, A. F.** (2008). **Rheological characterisation of common yoghurt in the Nigerian markets.** In: *Proceedings of the 31st Annual Conference of the Nigerian Institute of Food Science and Technology*, Ladoke-Akintola University, Ogbomoso, Nigeria. 13 – 17 October 2008.

2. **Adebowale, A. A., Sanni, L. O. and Fadahunsi, E. L. (2008). Functional properties of cassava – sweet potato starch blends.** In: *Proceedings of the 31st Annual Conference of the Nigerian Institute of Food Science and Technology*, Ladoke-Akintola University, Ogbomoso, Nigeria. 13 – 17 October 2008.
3. Fetuga, G. O., Adeleye, A.O., **Adebowale, A. A.** and Fashina, A.O. (2008). **Nutritional and sensory qualities of water extract of sorghum stalk.** In: *Proceedings of the 31st Annual Conference of the Nigerian Institute of Food Science and Technology*, Ladoke-Akintola University, Ogbomoso, Nigeria. 13 – 17 October 2008.
4. **Adebowale, A.A., Sanni, S.A and Odusami, B.O. (2007). Proximate and sensory properties of cassava-cowpea snack.** Page 89 – 90. In: *Proceedings of the 31st Annual Conference of the Nigerian Institute of Food Science and Technology*, University of Abuja, Nigeria 22 – 25 October 2007.
5. **Adebowale, A. A., Sanni, S.A., Fetuga, G.O. and Akanbi, T.A. (2006). Chemical and sensory properties of breadfruit starch – wheat flour noodles.** Page 66 – 71. In: *Proceedings of 37th Nutrition Society of Nigeria Conference*, Abeokuta, 8 – 11th November, 2006.
6. Sanni, L. O., Awosika, Y. A. and **Adebowale, A. A. (2004). Proximate Composition of Fortified Cassava Flakes.** In: *Proceedings of the 28th Annual Conference of the Nigerian Institute of Food Science and Technology*, Conference Centre, University of Ibadan, Nigeria 12 - 14th October 2004.
7. Sanni, L. O., Oyewole, O. B., **Adebowale, A. A.** and Adebayo, K (2003). **Current trends in the utilization of roots and tubers for sustainable development.** In: *Proceedings of the 2nd International Workshop on Small Scale Food Industry for Healthy Nutrition in West Africa*, Ouagadougou, Burkina Faso organised by University of Ouagadougou/Wageningen University/International Research for Development, 24 - 28 November 2003.
8. Yusuff, S. A., **Adebowale, A.A., Sanni, S. A.** and O. R Karim (2003). **Seeds Characteristics and Proximate Composition of different Cowpea Varieties.** In: *Proceedings of the 27th Annual Conference of the Nigerian Institute of Food Science and Technology*, Bayero University, Kano, Nigeria. 13 – 17 October 2003
9. Karim, O.R. **Adebowale, A.A.** Yangomodu, O.D. and Fetuga, G.O. (2003). **Level of Awareness of the Regulatory Roles of NAFDAC by Undergraduate Students – A case study of Olabisi Onabanjo University, Ago-iwoye.** In: *Proceedings of the 27th Annual Conference of the Nigerian Institute of Food Science and Technology*, Bayero University, Kano, Nigeria. 13– 17 October 2003.
10. Karim, O.R. and **Adebowale, A.A (2001) Influence of Selected Wood types on Flavour Characteristics of Smoked Fresh fish.** In: *Proceedings of the 25th Annual Conference of the Nigerian Institute of Food Science and Technology*, Lagos. 5 – 9 November 2001.

Workshops/courses

Date	Organizing body	Title and purpose of events
13 th – 17 th Oct. 2008	Nigerian Institute of Food Science and Technology	31 st Annual conference of the Nigerian Institute of Food Science and Technology
2 nd – 4 th July 2008	Nigerian Institute of Food Science and Technology	National training workshop on simulation modelling and computer applications in R &D
5 th – 9 th Dec 2005	African Crop Science Society	7 th African crop science society conference
17 th – 19 th Jan 2005	International Institute of Tropical Agriculture, Ibadan, Nigeria	International training course on HACCP
24 th – 25 th March 2003	NRI/UNAAB cassava SME's project	International workshop on development of small and medium scale enterprise sector producing cassava based products to meet emerging urban demand in west Africa
22 nd – 26 th 2002	Nigerian Institute of Food Science and Technology	Training workshop on research methodology for young scientists