
AWONORIN, Samuel Olusegun

Degree: HND, M.Sc., Ph.D.

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Department: Food Science & Technology

Academic Rank: Professor

Current position:

Research interest:



Detailed Resume

ACADEMIC DEGREES WITH DATE

- Ph.D. 1982
- M.Sc. 1979
- H.N.D 1977

INSTITUTIONS ATTENDED WITH DATE

- The University of Leeds, Leeds, U. K. 1978 – 1982
- Luton College of Higher Education, Luton, U. K. 1977 – 1978
- Grimsby College of Technology, Grimsby, U.K. 1974 – 1977

MEMBERSHIP OF PROFESSIONAL BODIES

- Council of Registered Engineers of Nigeria (COREN) – Registration No. COREN 4758 in Mechanical Engineering Practice (1992).
- M. Inst. R – Member of the Institute of Refrigeration, Britain (1971).
- CM.RSES – Certificate Member of the Refrigeration Service Engineers Society, U.S.A. (1974).
- AM.ASHRAE – Associate Member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, U.S.A. (1974).
- Grad. M.I.Mech.E – Graduate Member of the Institute of Mechanical Engineers, Britain (1979).
- F.NIFST – Member of the Nigerian Institute of Food Science and Technology (1984).

PRIZES, HONOURS, NATIONAL AND INTERNATIONAL RECOGNITION

- Western State Government of Nigeria Scholarship (1969 to 1971) – Refrigeration and Air-Conditioning at the Government Technical College, Oshogbo – Ref. No. GTC/RAC/68/3/14.
- Western State Government of Nigeria Undergraduate Overseas Scholarship (1974 to 1977) – H. N. D. Mechanical Engineering (Refrigeration and Air-Conditioning Technology) at Grimsby College of Technology, U.K. – Ref. No. SCH. 11/73/24.

- The British Council, London – Ph.D in Food Process Engineering at the University of Leeds, U.K. (1979 to 1982) – Ref. No. GEN/3500/5A/NIG/309/79/80 of October 16, 1979.

COURSES TAUGHT

RESEARCH CONDUCTED

- Design and construction of a multi-purpose fruit juice extractor. Department of
- Food Science and Technology, University of Agriculture, Abeokuta sponsored 2003 – 2004.
- Design, Construction and evaluation of a Centrifugal liquid-solid separator.
- Department of Food Science and Technology, University of Agriculture, Makurdi, Benue State, sponsored, 1998 – 1999.

PUBLICATIONS

Referred Conference Proceedings

Seminars

- i) **Awonorin, S. O. (1987)**. Equipment and Machinery in the Processing of Food Waste. In: Proceedings of the 2nd Annual Symposium on Food Waste Utilization – Economic and Environmental Benefits. Nigerian Institute of Food Science and Technology (Western Chapter), May 2, 1987, College of Science and Technology, University of Lagos, Abeokuta Campus, Ogun State, pp. 38 – 46 (Edited).
- ii) **Awonorin, S. O. (1994)**. Influence of Packaging Film Thickness on the Rates of Heat Transfer to Broiler Chickens during Freezing with Liquid Nitrogen Sprays. A paper presented at the Annual Conference of the Nigerian Institute of Food Science and Technology held at the Rivers State University of Science and Technology, Port-Harcourt, November 28th to December 2nd, 1994.
- iii) **Awonorin, S. O. (1995)**. An appraisal of the Freezing Capabilities of Tunnel and Spiral Belt Freezers Using Liquid Nitrogen Sprays. A paper

presented at the Annual Conference of the Nigerian Institute of Food Science and Technology, Hamdala Hotel, Kaduna on 30th October to November 2nd 1995.

iv) **Awonorin, S. O.**, Abu, J. O. and Agbali, F. (1997). Energy Transport Mechanisms In Free Convection During Reconstitution of Gari. A paper presented at the Annual Conference of the Nigerian Institute of Food Science and Technology, University of Uyo, November 1997.

v) **Awonorin, S. O. (1999)**. Hot Air Drying Kinetics Ewedu (*Corchorus olitorus*) Leaves. A paper presented at the Annual Conference of the Nigerian Institute of Food Science and Technology, Raw Materials Research and Development Council, Abuja, 25th – 27th October, 1999.

Journal Articles

(i) **Awonorin, S. O.** and Lamb, J. (1988). Heat Transfer Coefficient for Nitrogen Droplets Film-Boiling on a Food Surface. *International Journal of Food Science and Technology*, 23(4): 391 – 401.

(ii) **Awonorin, S. O.** (1989). Evaporation rates of Freely Falling Liquid Nitrogen Droplets in Air. *Heat Transfer Engineering*, 10(1): 26 – 36.

(iii) **Awonorin, S. O.** (1989). Film Boiling – Characteristics of Liquid Nitrogen Sprays on a Heated Plate. *International Journal of Heat and Mass Transfer*, 32(10): 1853 – 1864.

(iv) **Awonorin, S. O.** (1989). A Model for Heat Transfer in Cryogenic Food Freezing. *International Journal of Food Science and Technology*, 24(3): 243-359.

(v) **Awonorin, S. O.** (1989). Determination of the Performance of a Cryogenic Freezer. *American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Transactions*, 95(1): 125-130.

(vi) **Awonorin, S. O.** and Lamb, J. (1990). The Leidenfrost Phenomenon: Experimental Investigation of the Vaporization of Nitrogen Droplets on a Food Surface. *Journal of Food Science*, 55(3): 808-816.

(vii) **Awonorin, S. O.** and Rotimi, D. K. (1991). Effects of Oven Temperature and Time on the Losses of Some B-Vitamins in Roasted Beef and Pork. *Journal of Food Service Systems*, 6(2): 89-105.

(viii) **Awonorin, S. O.**, Ekpe, E. and Oyewole, L. O. (1991). Production of Livestock Feed from Livestock Wastes. *Journal of Agriculture, Science and Technology*, 1(2): 104 – 108.

- (ix) **Awonorin, S. O.** and Ayoade, J. A. (1992). Texture and Eating Quality of Raw – and Thawed – Roasted Turkey and Chicken Breasts as Influenced by Age of Birds and Period of Frozen Storage. *Journal of Food Service Systems*, 6(4): 241-255.
- (x) **Awonorin, S. O.** and Rotimi, D. K. (1992). Influence of Endpoint Temperature, Humidity and Cold Storage on Mechanical and Sensory Properties of Smoked Chicken Sausage. *Journal of Food Service Systems*, 7(1): 43-53.
- (xi) **Awonorin, S. O.** (1993). Analysis on the Heat Transfer Coefficient for Liquid Nitrogen Droplets in Cryogenic Freezing of Foods. *International Journal of Refrigeration*, 16(2): 143-151.
- (xii) **Awonorin, S. O.** (1993). Quality of Smoked Chicken – Guinea Fowl Sausage as Affected by Processing Conditions and Cold Storage. *Food Science and Technology*, 26(4): 285-290.
- (xiii) **Awonorin, S. O.** and Bamiro, F. O. (1993). Sun – and Hot Air-Drying of Soybean: A comparative Study of Selected Quality Parameters and Storage of the Oil Obtained by Solvent Extraction. *Nigerian Food Journal*, 11: 84-97.
- (xiv) **Awonorin, S. O.** (1993). Rheological and Mechanical Properties, B Vitamin Retention and Sensory Characteristics of Smoked Sausage Made from Mixtures of Broiler Chicken and Guinea Fowl. *Food Science and Technology*, 26(4): 291-300.
- (xv) **Awonorin, S. O.** and Ayoade, J. A. (1993). Thermal Destruction of Thiamin in Different Types of Pre-Packaged Minced Meats. *International Journal of Food Science and Technology*, 28(6): 597-602.
- (xvi) **Awonorin, S. O.** (1994). Rheological and Emulsification Properties of Chicken Sausage as Influenced by Age of Birds. *Nigerian Food Journal*, 12: 55-65.
- (xvii) **Awonorin, S. O.**, Ayoade, J. A., Carew, S. N., Ingbian, E. K. and Girgih, A. T. (1994). Quality of Meat from Rabbits Fed Various Levels of *Gliricidia sepium*. *Nigerian Journal of Animal Production*, 21: 170-180.
- (xviii) **Awonorin, S. O.**, Bamiro, F. O. and Ayoade, J. A. (1995). The Effect of Freezing Rate, Storage and Cooking on Some B-Vitamins in Beef and Pork Roasts. *Journal of Food Service Systems*, 9(1): 7-23.
- (xix) **Awonorin, S. O.**, Ayoade, J. A. and Oyewole, L. O. (1995). Relationship of Rendering Process Variables to Selected Quality Parameters of Poultry Byproduct Meal. *Food Science and Technology*, 28(1): 129-134.

- (xx) **Awonorin, S. O.** and Ayoade, J. A. (1995). Preslaughter Heat Stress and Starvation Time on Quality of Broiler Chicken Breast Roasts. *Delta Agriculturist*, 2: 187-200.
- (xxi) **Awonorin, S. O.** (1996). An Appraisal of the Freezing Capabilities of Tunnel and Spiral Belt Freezes Using Liquid Nitrogen Sprays. *Journal of Food Engineering*, 34(2): 179-192.
- (xxii) **Awonorin, S. O.**, Ayoade, J. A. and Abe, A. A. (1999). Effect of Preslaughter Exercise of Broiler Chickens on Carcass Quality. *Nigerian Veterinary Journal*, 20(2): 51-64.
- (xxiii) Shittu, T. A., **Awonorin, S. O.**, Sanni, L. O. and Idowu, M. A. (2002). Dry Milling Characteristics of Dried Cassava chips as Related to Moisture Content. *Journal of Applied Science and Technology* 2(1): 13-18.
- (xxiv) Solanke, O. E and **Awonorin, S. O.** (2002). Kinetics of Vitamin C Degradation in Some Tropical Green Leafy Vegetable during Blanching. *Nigerian Food Journal*, 20: 24-32. Erratum in 21:76-78 (2003).
- (xxv) Henshaw, F. O., **Awonorin, S. O.**, and Odunowo, F. M. (2004). Functional Properties of Frozen Cowpea Paste: Effect of Freezing Rate and Frozen Storage. *ASSET JOURNAL SERIES A*. Accepted.
- (xxvi) Adebowale, A. A., Sanni, L. O., **Awonorin, S. O.** (2005). Effect of texture modifiers on the physico-chemical and sensory properties of dried fufu. *Food Science and Technology* 11(5): 373-382.
- (xxvii) Ukatu, A. C. and **Awonorin, S. O.** (2005). A fertilizer drill for small – scale farmers of the developing nations. *ASSET Journal, Series B*, 4 (1): 1-14.
- (xxviii) Sobowale, S. S., Sobukola, O. P., Shittu, T. A., **Awonorin, S. O.**, Sanni, L. O., Awokola, O. S., and Aina, O. M. (2005). Analysis of heat transfer during reconstitution of gari granules into a paste. *ASSET Journal, Series B*, 4(1): 15 – 26.
- (xxix) Sobukola, O. P., **Awonorin, S. O.**, Sanni, L. O. and Bamiro, F. O. (2008). Optimization of blanching conditions prior to deep fat frying of yam slices. *International Journal of Food Properties*, 11: 379 – 391.
- (xxx) Sobukola, O. P., **Awonorin, S. O.**, Sanni, L. O., and Bamiro, F. O. (2008). Deep – fat frying of yam slices: optimization of processing conditions using response surface methodology. *Journal of Food Processing and Preservation*, 32: 343 – 360.

(d) Articles Submitted for Publication

- (i) **Awonorin, S. O.**, Tihamiyu, L. O. and Alergheny, N. (1997). Physico-Chemical Changes in Tilapia Immersed in different Brine Concentrations. *Journal of Sustainable Agriculture and the Environment*. (Submitted).
- (ii) **Awonorin, S. O.**, Inyang, U. E. Alergheny, N., Kalu, B. A., Atsor, C. T. and Umo, E. J. (1997). Swelling Behaviour of Gari during Reconstitution: Part I, Influence of Some Processing Parameters. *Nigerian Food Journal*. (Submitted).
- (iii) **Awonorin, S. O.**, Inyang, U. E., Alergheny, N., Kalu, B. A., Atsor, C. T. and Umo, E. J. (1997). Swelling Behaviour of Gari during Reconstitution: Part II, Influence of Fermentation Period, Starch and Fibre Levels. *Nigerian Food Journal*. (Submitted).
- (iv) **Awonorin, S. O.**, Abu, J. O. and Agbali, F. (1998). Energy Transport Mechanisms during Reconstitution of Gari. *Journal of Agriculture, Science and Technology*. (Submitted).

(e) Thesis

- (i) Design of a 200 Tonnes Cold Storage Plant to be Located in Madrid, Spain. Higher National Diploma Dissertation. Grimsby College of Technology, Nuns Corner, Grimsby, South Humberside, U.K., 1977.
- (ii) Economic Analysis of an Unmanned Commercial Refrigeration Plant. Associateship Diploma Dissertation. Luton College of Higher Education, Luton, Bedfordshire, U.K., 1978.
- (iii) Energy Conservation in the Food Industries. M.Sc. Dissertation. University of Leeds, U.K., 1979.
- (iv) Heat Transfer to Liquid Nitrogen Droplets during Cryogenic Refrigeration of Foods. Ph.D Thesis. University of Leeds, U.K., 1982.