

**ALFRED ANDERSON**  
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## **PROFESSIONAL EXPERIENCE**

### **Acting Chairman**

Department of Food Science and Nutrition  
College of Life Sciences  
Kuwait University

**November 2012 – May 2017**

### **Associate Professor**

Department of Food Science and Nutrition  
College of Life Sciences  
Kuwait University

**June 2007 – Present**

### **Assistant Professor**

Department of Food Science and Nutrition  
College of Life Sciences  
Kuwait University

**September 2003 – June 2007**

### ***Courses Taught/Teaching:***

- Introduction to Human Nutrition and Food Science
- Humans and Their Environment
- General Chemistry
- Chemistry for Life Sciences
- Food Product Development
- Quality Control in Food Industry
- Capstone
- General Physics
- Organic Chemistry
- Food Chemistry
- Food Analysis
- Cereal Technology
- Seminar
- Analytical Techniques in Food Science and Nutrition
- Food Microbiology
- Food Safety and Food Handling
- Food Service Management
- Food Regulations
- Food Processing Technology
- Portfolio Review

**Assistant Professor**  
Department of Food & Nutrition  
University of Wisconsin-Stout  
Menomonie, WI, U.S.A.

**September 2001- September 2003**

***Course Taught:***

- Food Science
- Trends in Nutrition
- Experimental Foods
- Basic Sensory Analysis
- Sensory Evaluation of Food

**Research Food Technologist**  
Food Processing & Sensory Quality Unit  
Agricultural Research Service  
United States Department of Agriculture (USDA)  
New Orleans, LA, U.S.A.

**January 1999 – August 2001**

***Activities:***

- Conducted basic and applied research into the fundamental properties of cereal components
- Developed processing technologies to produce value-added cereal products
- Conducted basic and applied research on the effects of processing on cereal grain components in relation to end use quality.

**Graduate Research Assistant**  
Department of Food Science & Human Nutrition  
Michigan State University  
East Lansing, MI, U.S.A.

**January 1994 – December 1998**

***Activities:***

- Conducted basic and applied research in cereal chemistry and processing toward PhD degree in Food Science.
- Taught food chemistry laboratory (1 semester) for undergraduate and graduate students.

**Graduate Assistant**  
Department of Food Science  
University of Arkansas  
Fayetteville, AR, USA.

**January 1990 – December 1993**

***Activities:***

- Participated in research activities and studies toward the award of Master's Degree in food science.

## OTHER EXPERIENCE

### Senior Laboratory Analyst

1982 - 1984

Lever Brothers Ghana Limited

Tema, Ghana

#### *Activities:*

- Laboratory analysis of crude and processed oils, quality control of edible processed and household products.

## EDUCATION

Michigan State University, PhD Food Science

1998

University of Arkansas, MS Food Science

1993

University of Arkansas, BS (*Cum Laude*) Food Science

1990

## RESEARCH INTERESTS

Cereal science and technology

Functional properties of cereal grain components in relation to end use quality

Production of value-added products of enhanced quality from cereal grains

Cereal utilization in developing countries

Functional foods and ingredients

International nutrition, hunger, and world food security

## GRANT AWARDS

Faculty Research Grant - Kuwait University

2005

Faculty Research Initiative Grant - University of Wisconsin-Stout

2002

International Faculty/Staff Development Grant - University of Wisconsin-Stout

2002

Professional Development Award - University of Wisconsin-Stout

2001

## HONORS & SCHOLARSHIPS

Excellence in Teaching Award, Kuwait University

2006 – 2007

Kuwait University-College for Women Student Association Best Teacher Award

2007 - 2008

University of Arkansas Academic Scholarships

1988 - 1990

Ozark Food Processors Association Scholarships

1988 - 1990

Institute of Food Technologists Scholarship

1988 - 1989

Michigan State University Minority and Women Graduate Fellowship

1994 - 1998

Michigan State University Summer Acceleration Fellowship

1996 - 1997

Michigan State University Dissertation Completion Fellowship

1997 - 1998

American Association of Cereal Chemists Graduate Student Travel Grants

1996 - 1998

## JOURNAL PUBLICATIONS

### A. Refereed Articles

1. Al-Hilal, M., Moussa, Z., and **Anderson, A.** (2023). Nutritive value and antioxidant analysis of five varieties of date fruit (*Phoenix dactylifera* L.) grown in Kuwait. *Kuwait J Sci*, 50(1A): 1-11. DOI: 10.48129/kjs.17169.
2. Alotaibi, H. N., **Anderson, A. K.**, Sidhu, J. S. (2021). Influence of Lutein Content of Marigold Flowers on Functional Properties of Baked Pan Bread. *Annals of Agricultural Sciences*, 66:162-168. <https://doi.org/10.1016/j.aos.2021.12.002>
3. Elmi, A., **Anderson, A. K.**, and Albinali, A.S. (2019). Comparative study of conventional and organic vegetable produce quality and public perception in the state of Kuwait. *Kuwait J. Sci.* 46(4):120-127.
4. Al-Mutawa, **A.**, **Anderson, A.K.**, Al-Sabah, S., and Al-Mutawa, M. (2018). Nutritional Status of Bariatric Surgery Candidates. *Nutrients*, 10(1), 67; doi:10.3390/nu10010067.
5. Al-Mutawa, A., Al-Sabah, S., **Anderson, A.K.**, and Al-Mutawa, M. (2017). Evaluation of Nutritional Status Post Laparoscopic Sleeve Gastrectomy – 5 Years Outcomes. *Obesity Surgery*. <https://doi.org/10.1007/s11695-017-3041-7>.
6. Al-Harbi M., **Anderson A.**, Elmi A. (2017). Evaluation of Microbial Contamination in Frequently Used Fomites in Kuwait. *Biodiversity Int J* 1(3):00013. DOI: 10.15406/bij.2017.01.00013.
7. Fouda M, **Anderson A** (2016). Effect of Substitution of  $\beta$ -Glucans on the Glycemic Response and Thermal Properties of Four Common Starches. *Int J Agri Sci Food Technol* 2(1): 009-015. DOI: 10.17352/2455-815X.000008.
8. **Anderson A K** (2016). Thermal and chemical treatment of red kidney bean (*Phaseolus vulgaris* L.) starch: Effects on  $\alpha$ -amylase digestion and resistant starch formation. *Res J Pharm Biol Chem Sci.* 7(5): 1772 -1781.
9. Bu-Hamdi, M.A., Al-Harbi, M., **Anderson, A.** (2016). Assessment of the Nutritionally Essential Minerals and Physiochemical Properties of Infant Milk Food Commercially Available in Kuwait. *Res J Pharm Biol Chem Sci.* 7(4):2977–2689.
10. **Anderson, A.K.** (2008). Biogenic and volatile amine-related qualities of three popular fish species sold at Kuwait fish markets. *Food Chem.* 107:761-767.
11. Ng, S.-C., **Anderson, A.**, Coker, J., and Ondrus, M. (2007). Characterization of lipid oxidation products in Quinoa (*Chenopodium quinoa*). *Food Chem.* 101:185-192.
12. **Anderson, A.K.** (2006). An assessment of the perception of learning gains of freshmen students in an introductory course in nutrition and food science. *J. Food Sci. Edu.* 5:1-6.
13. **Anderson, A.K.** and Guraya, H.S. (2006). Effects of microwave heat-moisture treatment

on properties of waxy and non-waxy rice starches. Food Chem. 97:318-323.

14. Ng, S.C. and **Anderson, A.K.** (2005). Lipid oxidation in quinoa (*Chenopodium quinoa*) as determined through accelerated aging. Electron. J. Environ. Food Chem. 4(4):1010-1020.
15. Wu, X.J., James, R. and **Anderson, A.** (2005). Mineral contents in seed coat and canning quality of selected cultivars of dark red kidney beans (*Phaseolus vulgaris L.*). J. Food Pro. Pres. 29:63-74.
16. Wu, X. J., James, R., Ondrus, M., Coker, J., and **Anderson, A.** (2004). Correlation of physicochemical properties of seed coat and canning quality of different dark red kidney Beans (*Phaseolus vulgaris L.*). Food Sci. Biotechnol.13:676-679.
17. **Anderson, A.K.** and Ng, P.K.W. (2003). Physical and microstructural properties of wheat flour extrudates as affected by vital gluten addition and process conditions. Food Sci. Biotechnol. 12:23-28.
18. **Anderson, A.K.**, Guraya, H.S., James, C., and Salvaggio, L. (2002). Digestibility and pasting properties of rice starch heat-moisture treated at the melting temperature (T<sub>m</sub>). Starch/Stärke 54:401-409.
19. **Anderson, A.K.** and Guraya, H.S. (2001). Extractability of protein in physically processed rice bran. J. Am. Oil Chem. Soc. 78:969-972.
20. **Anderson, A.K.** and Ng, P.K.W. (2000). Changes in disulfide and sulfhydryl contents and electrophoretic patterns of extruded wheat flour. Cereal Chem. 77:354-359.
21. **Anderson, A.K.** and Ng, P.K.W. (2001). Thermal and hydrophobic properties of extruded wheat flour components as measured by differential scanning calorimetry and fluorescence spectroscopy. Food Sci. Biotechnol. 10:156-160.
22. **Anderson A.**, Hettiarachchy N., and Ju, Z.Y. (2001). Physicochemical properties of pronase-treated rice glutelin. J. Am. Oil Chem. Soc. 78:1-6.

## **B. Review Articles**

Zondag, M. and **Anderson, A.K.** (2003). Peanuts - a source of medically important Resveratrol. Nat Prod. Rad. 2:182-189.

## C. Conference Presentations and Abstracts

Influence of lutein content of marigold flowers on functional characteristics of baked flour products. American Chemical Society (ACS) Spring 2023 Meeting. March 26- 30, 2023.

Effect of Substitution of  $\beta$ -glucans on the Glycemic Response and Thermal Properties of Common Starches. 253rd National Meeting and Exposition of the American Chemical Society (ACS). San Francisco, CA, USA, April 2 – 6, 2017.

Digestibility, viscosity, and microstructural properties of waxy and non-waxy rice starches resulting from microwave heat-moisture treatment 22 – 26 March 2015.

Stability of biogenic amines in relation to the quality of three fish species commonly consumed in Kuwait. 64<sup>th</sup> Southeastern Regional Meeting of the American Chemical Society. 14 – 17<sup>th</sup> November, 2012. Raleigh, NC, USA.

Stability of oxidative products in Quinoa (*Chenopodium quinoa*) during accelerated aging. 243<sup>rd</sup> Annual Conference of the American Chemical Society. San Diego, CA, USA. March 25 – 29, 2012.

Analysis of mineral contents in seed coat in relation to canning quality of selected cultivars of dark red kidney beans (*Phaseolus Vulgaris L.*). 41<sup>st</sup> Middle Atlantic Regional Meeting (MARM) of the American Chemical Society. Wilmington, DE, USA. April 10 - 13, 2010.

Biochemical analyses of three fish species sold at Kuwait fish markets in relation to quality. 42<sup>nd</sup> American Chemical Society (ACS) Midwest Regional Meeting (MWRM). Kansas City, MO. November 7 to 10, 2007.

An assessment of the learning gains of freshmen students in an introductory course in nutrition and food science. 231<sup>st</sup> ACS National Meeting, Atlanta, GA, March 26-30, 2006.

Thermal and hydrophobic properties of extruded wheat flour components as measured by differential scanning calorimetry and fluorescence spectroscopy. 56<sup>th</sup> Annual Pittsburg Conference and Exposition on Analytical Chemistry and Applied Spectroscopy (PITTCON 2005), Orlando, FL, USA, February 2005.

Microwave Heat Applications to Produce Slowly-Digestible Starches. 227<sup>th</sup> National Meeting of the American Chemical Society (ACS). March 2004. Anaheim, CA, U.S.A

Digestibility and Pasting Properties of Microwave Heat-Moisture Treated Rice Starch. 62<sup>nd</sup> Annual Meeting of the Institute of Food Technologists (IFT). New Orleans, LA. June 2001.

Physical Processing of Rice Bran to Produce High Protein Rice Bran Flour. 85<sup>th</sup> Annual Meeting of the American Association of Cereal Chemists. Kansas City, MO. November 2000.

The Effects of Twin Screw Extrusion Processing on Soft Wheat Proteins in Expanded Products. 82<sup>nd</sup> Annual Meeting of the American Association of Cereal Chemists. San Diego, CA. October 1997.

Impact of Twin-Screw Extrusion on Physicochemical Properties of Wheat Storage Proteins. 81st Annual Meeting of the American Association of Cereal Chemists, Baltimore, MD September 1996.

Correlationship of the mineral contents in the seed coat and canning quality in different dark red kidney bean (*Phaseolus vulgaris* L.) cultivars. 2004. Abstract No. 24410. Institute of Food Technologists. X. J. Wu, R. James, M. G. Ondrus, J. Coker, A. Anderson.

Relationship of the physio-chemical contents in the seed coat and canning quality in different dark red kidney bean (*Phaseolus vulgaris* L.) cultivars. 2004. Abstract No. 24388. Institute of Food Technologists. X. J. Wu, R. James, J. Coker, M. G. Ondrus, and A. Anderson.

Analysis of disulfide and sulfhydryl contents of extruded wheat flour proteins. 2004. Abstract No. 63. American Chemical Society. Anderson, A.K.

Microwave Heat Applications to Produce Slowly-Digestible Starches. 2004. Abstract No. 50. American Chemical Society. Anderson, A.K., and Guraya, H.

Digestibility and pasting Properties of Microwave Heat-Moisture Treated Rice Starch. Abstract No. 7344. Institute of Food Technologists. 2001. Anderson, A.K., Guraya, H., and Champagne, E.T.

Physical Processing of Rice Bran to Produce High Protein Rice Bran Flour. 2000. Abstract No. 250. American Association of Cereal Chemists. Anderson, A.K., Guraya, H., and Champagne, E.T.

Effects of Twin Screw Extrusion Processing on Wheat Flour Proteins in Expanded Products. 1997. Abstract No. 47. American Association of Cereal Chemists. Anderson, A. and Ng, P.K.W.

The Impact of Twin Screw Extrusion on Wheat Storage Proteins. 1996. Abstract No. 232. American Association of Cereal Chemists. Anderson, A. and Ng, P.K.W.

The Effects of Twin Screw Extrusion Processing on Soft Wheat Proteins In Expanded Products. 82nd Annual Meeting of the American Association of Cereal Chemists. San Diego, CA. 10/14/97.