

**Name:** Sayed M. Hassan

**Rank:** Associate Research Scientist and Director of Laboratory for Environmental Analysis

% Salary Budgeted: Instr. 5 Res. 10 Ext. 10 Outreach 75



**Program Overview:** Directing the work and providing the technical expertise for the Lab for Environmental Analysis. The lab has been equipped with state-of-the-art instrumentation to provide analytical support in varying fields of environmental research besides training of students in instrumental analysis. Dr. Hassan also lectures the fundamentals of chromatography and demonstrates experiments dealing with gas and ion chromatography and inductively coupled plasma mass spectrometry.

**Education:** Ph.D.Pharm.Sci.(Analytical Chemistry),U.C.,Cairo,Egypt,1975.  
M.Pharm.Sci.(Analytical Chemistry),U.C.,Cairo,Egypt,1973.  
B.Pharm.Pharm.Chem.,U.C.,Cairo,Egypt,1966.

**Employment:**

**3/2000 to present:** Research Scientist, Department of Crop and Soil Sciences, College of Agricultural and Environmental Sciences, UGA. Supervising the work in the Laboratory for Environmental Analysis. Carrying out research and teaching chromatography courses in environmental fields.

**1/96 to 2/2000:** Chemical Instrumentation Manager and Chemical Spectroscopist, Department of Crop and Soil Sciences, UGA. Supervising the work and providing the technical expertise for the Lab for Environmental Analysis to provide analytical support in varying fields of environmental research besides training of students in instrumental analysis.

**7/88 to 9/95:** Principal Research Scientist, DynCorp c/o U.S.EPA. Studied partitioning of toxic metals; cadmium, copper, lead, nickel zinc, barium, strontium, chromium, arsenic and selenium at the soil/water interface. Developed ion chromatography methods for speciation of sulfur and chromium; and used them to study the fate of these compounds in the environment. Used MINTEQA2 thermodynamic equilibrium model to investigate metals speciation. Developed methodology for the analysis of metals, non-metals and organic pollutants at trace levels in environmental samples using ICP-AES, GFAA, IC, HPLC and GC. Studied the separation of enantiomers of some chlorinated pesticides using chiral GC. Studied degradation of persistent chlorinated pesticides and chlorinated organic solvents using zero valent iron. Developed methods for determination of halogenated hydrocarbons and their reduction products using gas chromatography. Applied GC/MS to study and follow up the reduction of aromatic hydrocarbons.

**Membership in Professional Societies**

The American Chemical Society.  
The New York Academy of Sciences.  
The American Association for the Advancement of Science.  
Sigma Xi Society, University of Georgia Chapter.  
Association of Official Analytical Chemists.

## **Awards**

Recipient of Abdul Hameed Shoman achievements award, 1985.

## **Contributions to Teaching**

(1)	Undergraduate			
	Course #	Title	Times taught (Sp & Fall)	Avg. # of Students
	CRSS 4660/4660L			10

(2)	Graduate			
	Course #	Title	Times taught (Sp & Fall)	Avg. # of Students
	CRSS 6660/6660L			10

(3)	Service on Graduate Advisory Committees			
	Degree (MS/Ph.D)	Involvement (member/chair)		

Lina Korkor Kodji-Wayo, Ph.D., member.

Chelsea Krenn Ward, Ph.D., member

Ryan P. Jones, MS, member

## **Contributions to Research and Other Creative Activities**

No. of books

No. of book chapters

No. of refereed papers/by journal            70

No. of proceedings papers                    18

No. of abstracts

No. of Patents/PVPs

Other activities

## **Contributions to Extension**

**Sources of Grants/amounts**    US DOE/\$200,000.  
National Pork Producers Council/\$25,000.  
US EPA/\$659,764.

**Contributions to Professional Service** (committee service to department, college, university, and/or professional societies)

## **Goals for the Next Five Years**

1. Increase the capabilities and expand the analytical services of the Lab for Environmental Analysis.
2. Teaching a course on Organic Environmental Chemistry.
3. Submitting proposals to attract grant funds.