

## CURRICULUM VITAE



### **Personal Data:**

**Name:** Gamal Abd El-Halim Mohamed Hussein (**G.A.M. Hussein**)

**Sex & Date of Birth:** Male. 7/14/1956.

**Nationality:** Egyptian.

**Marital status:** Married, with children.

**Position:** Professor of Physical Chemistry (Surface Chem. and Catalysis).

**Mailing address:** Chemistry Dept., Faculty of Science, Minia University, El-Minia 61519, Egypt.

**Languages:** Fluent in both Arabic and English and some Japanese

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### **Academic Qualifications:**

**Ph.D. (1987)** Chemistry, joint supervision between Minia University (Egypt) and

Prof. N. Sheppard, University of East Anglia, Norwich, U.K.

“Vibrational Spectroscopy and Surface Chemistry of Group IV-B Metal

Oxide Catalysts” (Publications. 5-7)

**M.Sc. (1982)** Minia University, Egypt.

”Kinetics and Mechanism of Solid State Reaction Formation of Certain Aluminates” (Publications. 1-4)

### **Member in Professional Societies:**

1. Member of American Chemical Society, U.S.A, since 1992.
2. Member of Egyptian Chemical Society, Egypt, since 1990.

3. Member of Surface Chemistry and Catalysis Society in Egypt, Egypt, since 1996.
4. Member of the Syndicate of Scientific Professions, Egypt, since 1978.

#### **BRIEF CHRONOLOGY OF EMPLOYMENT:**

1. **Research Assistant** in Chem. Depart., Minia Univ., Egypt, from 1978 to 1982.
2. **Assistant Lecturer** in Chem. Depart., Faculty of Sci., Minia Univ., from 1982 - 1984.
3. **Teaching Assistant** in East Anglia Univ. Norwich, U.K, 1985-1987.
4. **Assistant Professor** of Chem., Faculty of Sci., Minia Univ., from 1987 - 1991.
5. **Associate Professor** of Chem., Faculty of Sci., Minia Univ., from 1992 -1997.
6. **Professor** of Surface Chem. and Catalysis, Faculty of Sci., Minia Univ., from 1997- on wards.

#### **SABBATICALS:**

1. Minia University Postgraduate Fellowship, for Ph.D. Study, open channel system, University of East Anglia, Norwich, United Kingdom, (1984-1987).
2. Visiting Scientist, Center for Catalytic Science and Technology, Dept. of Chem. Eng., Univ. of Delaware, Newark, DE 19716, U.S.A, (1990-1991).(With Prof. Bruce C.Gates)
3. Scientific advisor, TOWA Kagaku, Technical Research Center, 2-10-37 Dejima, Minami-Ku, Hiroshima-734, JAPAN, (1994- 1996).
4. Visiting Professor, Dept. of Chem. Eng. King. Saudi University, and SABIC, for Petrochemical Industrial catalysts, Rayda, Sudia Arabia (1998).
5. Visiting Professor, Center for Catalytic Science and Technology, Dept. of Chem. Eng., Univ. of Delaware, Newark, DE 19716, U.S.A, (2001- 2002).

#### **ACADEMIC DEGREES SUPERVISED:**

I have supervised a number of M.Sc. and Ph.D. students in the following areas of research:

1. Physicochemical Investigation of the Solid State Reaction Course of Alkaline Earth Chromite", M.Sc. degree.1992.
2. Surface Chemistry and Catalytic Activity of Supporting Manganese Oxide Catalyst" M.Sc. degree1994.
3. Spectroscopic Studies of Adsorption and Surface Reactions on Catalytic Oxides" Ph.D. degree1995.

4. Physicochemical Investigation of the Solid State Reaction between of Rare Earth Metal Oxide and Barium Carbonate "M.Sc. degree 1999.
5. Physicochemical Characterization Of the Formation Course of Some Rare Earth Metal Oxide Catalysts", M.Sc. degree 2000
6. Formation and Characterization of Some Rare Earth Metal Oxide and Supported Metal Oxide Catalysts. ", Ph.D. degree 2000
7. Thermo-analytical Studies of the Decomposition Course of Some Rare Earth Metal Nitrates, M.Sc. 2000

### **RESEARCH EXPERIENCES:**

I have an experience in formation, characterization and catalytic activity of metal oxide supported metal oxide, mixed metal oxide catalysts using different techniques such as: Thermal analyses (DTA, TG, and DSC), X-ray diffraction, Surface area ( $S_{PET}$ ), Scanning electron microscopy (SEM), Texture measurements, IR and Gas-Mass Spectroscopy. Surface acidity, by IR and Zeta potential.

I also have an experience in studying the kinetics and mechanisms of solid state reactions, electrical conductivity measurements of solids.

### **AWARDS AND PRIZES:**

1. I award an Honor and Prize from the Egyptian Government as an Active Chemical Scientist in EGYPT for 1996.
2. I award an Honor from President Mubarak, President of EGYPT, in Chemical Science for the year 1997.

### **MAJOR CONFERENCES ATTENDED:**

#### **The following conferences I contribute either by Paper or as invited speaker)**

1. School of Chem. Science, Univ. of East Anglia, Norwich, UK, 5-9 January 1987.
2. Center for Catalytic Science and Technology, Depart. Of Chemical Engineer, Univ. of Delaware, USA, 9-12 October 1991.
3. One of the Scientific Committee for Preparation of the Training Course on Catalytic Processes for Petrochemical Industries, Cairo 1997, Supported by UNIDO, UN
4. International Conference on Material Science and Technology, Faculty of Science, Assuit University Egypt 1-5 Nov. 2000
5. International Conference on Material Science and Technology, Faculty of Science, Assuit University Egypt 2-6 Nov. 2000.
6. International Conference on Material Science and Technology, Faculty of Science, Beni -suef, Cairo University Egypt 2-4 April 2001
7. Center for Catalytic Science and Technology, Depart. of Chemical Engineer, Univ. of Delaware, USA, 10-12 October 2001

### **SCIENTIFIC ACTIVITIES:**

1. On 1991 in university of Delaware, USA, Dealing with new techniques for Catalyst and Catalysis based on IR spectroscopic. Also I was involved in a project Supported by **NASA**, for formation and characterization of superconductors (Publication. 16).
2. On 1992 in Minia University, Egypt, I setup a laboratory for characterization and catalytic activity of metal oxide and supported metal oxide catalyst based on IR spectroscopy and Gas chromatography.
3. On 1994 (Scientific Advisor) for Towa Kagaku Company, Japan, Dealing with characterization and catalytic activity of metal oxide and supported metal oxide catalyst based on Gas-mass and Scanning Electron Microscope. (Publications. 40-42)

### **TEACHING COURSES:**

General Chemistry, Chemical Kinetics, Heterogeneous Catalysis, Colloid Chemistry, Surface Chemistry, Solid State Chemistry and Instrumental Analysis.