

## Curriculum Vitae

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**Family Name** : BARAKAT  
**Full Name** : Yosry Fathalla Mostafa Barakat  
**Date of Birth** : February 15, 1952  
**Languages** : Arabic, English & French  
**Marital Status** : Married  
**Address** : El Tayaran Street, 101 el tawfiq - Nasr City  
**Tel** : 22632609; 24019155  
**E-mail** : yfbarakat@hotmail.com

### Last Position

**Ex - Rector** of Tabbin Institute for Metallurgical Studies TIMS

### Present Occupation:

- Emeritus Professor - Tabbin Institute for Metallurgical Studies Head of **Corrosion and Surface chemistry Specialty.**
- Head of Special Unite Providing Jobs on Privet Bases

### Qualifications:

- Doctorate D'etat- Universite de Technologie de Compiegne –UTC- France- May 1987.
- M.Sc. Inorganic Chemistry- Cairo University 1980- Egypt.
- B.Sc. Major Chemistry-Cairo University 1975 - Egypt

### Additional Qualifications:

- Lead auditor for ISO 9000 / 2000 – RAJTA Nov., 2001.
- ISO 14000 Auditor Certification “Technical Training in Industrial Firm” -Feb. 98 Alex. -Egypt.
- Lead Auditor for Environmental Management System 14000 (EMS) by Excel- June 97.Fayom- Egypt.
- Professional Program in Environmental Engineering- American University in Cairo AUC (Sep.94-May 96)

### Present Occupation:

- Emeritus Professor - Tabbin Institute for Metallurgical Studies (TIMS)- **Cairo– Egypt, Head of Corrosion Specialty.**
- Head of Corrosion division

### Fields of Interest:

- Lithium ion Batteries.
- Supercapacitors.
- Corrosion engineering and Corrosion Protection of Metallic Materials.
- Electroplating and Electro less Plating on Metallic Materials
- Cathodic Protection of Industrial Facilities.
- Desalination of Sea and Brackish Water.
- Applications of Environmental Management Systems. ( ISO Systems )

- Pollution Prevention ( P2) Applications in Industrial Facilities
- Climate Change and Global Warming
- Expert for CDM Projects.
- Expert for Green building (LEED)

#### **Previous Occupation:**

- Rector of Tabbin Institute for Metallurgical studies TIMS
- Deputy of TIMS
- Member of EEAA board
- Supervisor of the Central Laboratory for Pollution Measurements
- Member of national committee of **ISO 14000**
- Member of committee of **DESERTIFICATION**
- Member of national committee of **IRON**
- Head of Corrosion division
- Associate Professor, TIMS, from 1992 to May 2000
- Pollution Prevention Expert ( 94 -98 ) in USAID Project on “Energy Conservation & Environment Project ECEP”
- Project Executive Director for “**Assessment and Screening of Industrial Helwan Area Project**”, 1992- **World Bank Project.**
- Scholar Fellowship in **France** 1980-1987- **Universite de Technologie de Compiegne - UTC** for “**Doctorate D’etat**”

#### **Conferences & Seminars:**

- Representing the institute (TIMS) in local, regional and international meetings, seminars and conferences.

#### **Publications:**

- More than 50 Scientific Papers published in Corrosion of Metallic Materials, Corrosion Inhibition Applications, Metallic Coatings, and Cathodic Protection.....
- More Than 30 Scientific Publications published in Pollution Prevention , Climate change , Industrial Pollution Control and Clean Development Mechanism CDM ,cleaner production .....
- More than 5 Scientific Publications in Electrochemical Applications in the Field of Renewable and Energy Savings Through Lithium Batteries and Supercapacitors as Well.

#### **Training Course Abroad:**

- Training course on “**combating desertification and drought**” organized by **FORGEA INTERNATIONAL** - Held at Iglesias-Monteponi, **Italy** -March, from 17th to 26th, 2003.
- Training of Trainers for Energy Management, Oct., -Dec., 1990, **International labor organization (ILO)** Center Turin –**Italy**

#### **Visiting Professor:**

- Visiting Professor –**Virginia Polytechnic Institute and State University** – Blacksburg- **VPI**, Virginia State – **USA**– Oct. 1993 – March 1994.

**Consultancy:**

- Consultant and trainer for many industrial firms inside and outside EGYPT.

**Publications:**

**A-In The Field of Corrosion & Protection of Metallic Materials**

- Evaluation of corrosion and erosion–corrosion resistances of mild steel in sulfide-containing NaCl aerated solutions  
Abdel Salam Hamdya,b, A.G. Sa'eh , M.A. Shoeib b, Y. Barakat  
**Electrochimica Acta 52 (2007) 7068–7074**
- Criticality Assessment of Galvanic Compatibility for Material Selection in Oil and Gas Production wells  
H.Ramadan , S . Khafagy ,and Y. Barakat  
**The Ninth Mediterranean Petroleum Conference and Exhibition.  
7-9 Feb., 2006, Tripoli-Libya.**
- Synergistic Effect of Erosive and Corrosive Wear in the Self Action of CZ75-B Pistol.  
A.A. Misallam, O. I. Hosny ,Y. Barakat  
**The Ninth International Mining, Petroleum and Metallurgical Engineering Conference  
21-24 Feb.,2005, Cairo -EGYPT**
- The effect of grain refining on the corrosion resistance of Al-Mg-Si alloy  
A.F.Abdel Salam ,Y.Barakat  
**The 21ST Annual Conference on the Corrosion Problem in Industry Sharm El Shekh . 17-20 Dec. 2002 Egypt**
- Effect of high saline medium on welded region of stainless steel 316 & 304,  
E. Madbowly, M. Radwan, and Y. Barakat.  
**TIMS Bulletin** Vol No 79 Jan. 2002
- Performance of Zinc- Nickel alloy coatings as anodes for impressed current in cathodic protection of steel.  
Y. Barakat, M. A. Shoieb and N. Gomaa, 2-4 Feb  
**Int. Conf. on Material science and Technology, 2002,  
Beni - Suf- Egypt.**
- Investigation of microstructure, microhardness and corrosion resistance of coated cast steel.  
Dr. M.Radwan ,S.khafagy, Y. Barakat, A.Fahmy.  
**Int. conf. on Materials Science and Technology April 2-4-2001, Beni- Suf, Egypt**
- The Corrosion Resistance of Castings Coated in Moulds.  
Y.Barakat;A. Fahmy; and M.Radwan.  
**19th Annual Conference “ Corrosion Problems in Industry” Zafarana - Egypt**
- The Effect of in-Mould Coating on The Hardness and Corrosion Resistance of Grey Cast Iron.  
Y. Barakat; H.El-Faramawi ; and A.F. Abdel Salam.  
**1St Chem. Conf. Fact. Sci. Beni - Suf, Cairo Univ. Nov. 27-29 (1999) – Egypt**

- Electroplating of Nickel from Sulplate- Glycine Bath.  
Y. Barakat, H. Sharawy  
**The Third Egyptian Syrian Conference on Chemical Eng.- Faculty of Pet. Eng. Suez. 25-27 oct. 99. - Egypt**
- The Corrosion Behaviour of Dual Phase Steel in Neutral Medium.  
A. Ziyada, Y. Barakat  
**Third Int. Conf. on Materials Science- Alex. 1992 - Egypt.**
- Effect of Plating Parameters on Electrodeposition of Ni- Fe Alloys From Glycinate Bathes.  
Y. Barakat, H. Sharawy  
**Ain Shams Science Bulletin, Vol 36, Chem . Section, PP 217-234(1998) Egypt**
- Effect of Plating Parameters on Electrodeposited Iron Obtained from Glycinate Baths.  
Y.Barakat, H.Sharawy  
**Ain Shams Science Bulletin, Vol 36, Chem. Section, PP 235-249, 1998 – Egypt.**
- The Corrosion Inhibition of Mild Steel in Aqueous Solution Containing H<sub>2</sub>S by SomeThiosemicarbazone.  
Y.Barakat, A. Baraka, A.M. Hassan  
**Werkstofftech V.30 (1999)- PP 1-21, Germany**
- Corrosion Inhibition of mild steel by Amphoteric Surfactants  
Y.Barakat, A. Baraka, A.M. Hassan  
**Werkstofftech V.29 (1998)- PP 1-14 , Germany**
- The Corrosion Inhibition of Mild Steel in Aqueous Solution Containing H<sub>2</sub>S by Some Naturally Occurring Substances.  
Y.Barakat, A. Baraka, A.M. Hassan  
**Werkstofftech V.29 (1998)- PP 1-7, Germany.**
- Polarization Studies of Mild Steel in Hydrochloric Acid Containing Metallic Ions and an Inhibitor.  
Y. Barakat  
**El Minia Science Bulletin Vol.10 (part 2) Chemisty Section Oct.1997- Egypt.**
- The Corrosion of Mild Steel by Aqueous Solution of Hydrogen Sulphide.  
Y. Barakat  
**El Minia Science Bulletine Vol.10 (Part2) Chemistry Section Oct.1997- Egypt.**
- Effect of Composition on the Productivity and quality of Malleable Cast Iron.  
Said khalil, A Abdel Nabi , M. Hussein Ahmed, Hoda Fahmy, and Y ,Barakat  
**Bulletin TIMS Vol 60, July 92 –Egypt**
- Corrosion Inhibition of Mild Steel in Aqueous Neutral Media, Part 1  
Y. Barakat, M.S.Morsi, and A.M. Hassan.  
**BulletinTIMS, Vol 59, Jan.1992- Egypt.**
- The Corrosion Behaviour of Al-Mg-Si Alloy Castings, Containing Titanium as Grain Refiner, in Sodium Hydroxide Solutions.  
Y. Barakat, A.F. Abdel Salam.  
**Al- Sebaka,Vol 50, June 93- Egypt**
- Effect of Manganese Additions on the Corrosion Resistance of Al-Mg-Si Castings in Alkaline Medium.  
A. F. Abdel Salam; Y..Barakat  
**Al- Sebaka,Vol 50, June 93-Egypt**

- Corrosion behavior of local produced stainless steel  
Y.Barakat ,S. E. Khalil, M. A .El-Zomor and M. H .Ahmed  
***Egyptian Journal of Solids***, Vol, 16, No.1, 1993.
- Electrochemical and Corrosion Behavior of Aluminum Bronze in Sulfuric Acid Solutions in a Wide Range of Concentrations and Temperatures.  
M.Abbas, and Y. Barakat  
***Bulletin TIMS*** Vol. 56, July 90-***Egypt***
- Electrochemical Behaviour of Aluminum Bronze in Ammonium Citrate Solutions  
M.Abbas, and Y. Barakat  
***Bulletin TIMS***.Vol 55,Jan 90- ***Egypt***
- Surface Treatment of Titanium and Titanium Alloys in View of Medical Applications.  
G. Berander, Y. Barakat, S. Ferjani, Coviedo De Onzaes, and C. Coddet.  
**Int., Symposium on Medical Applications of Titanium. Oct. 1986.USA**
- Modification Des Proprieties De Transport Atomique et De La Reactivity du Dioxyde de Titan Par Dopage au Course de sa Formation.  
Y.Barakat, G. Beranger Et. C. Coddet.  
**16 Èmê Journées D'étude Sur La Cinetique Heterogene; Limoges (25-26)Avril (1985).PP.9-10 -France.**
- Incorporation of Foreign Ions into Titanium Anodic Oxide Films During Their Growth. .  
Y.Barakat, E.A. Garcia et. Coddet  
**10th Int. Symposium on the Reactivity of Solids (Aug.27-1 sept.1984). Pp,125-127 – dijon- France.**
- Composition and Conduction Properties of Titanium Oxides Electro Formed in Different Electrolytes.  
Y.Barakat, D.David. G.Beranger and C.Coddet.  
**Proc. Of 37th Int. Meeting O the “Societe De Chimie Physique Paris 19-23 sept. 1983.p.421-426-France.**
- Effect of different factors on the reducibility of Baharia Oases Iron Ores, Western Desert-Egypt.  
**Amin Baraka, Mohamed El-Said Ibrahim, Y. Barakat and Mahmoud Selim**  
**Annali Di Chimica 73-1982-Italy**
- Reducibility of Baharia Oases Iron Ores, Western Desert-Egypt.  
Amin Baraka, Mohamed El-Said Ibrahim, Y. Barakat and Mahmoud Seleim.  
**Annali Di Chimica 72-1982-Italy**

### **B- In The Field Of Industrial Pollution Prevention.**

- Review of researches and international and national studies in energy conservation technologies. sep 2004- sep2006  
Y. Barakat et. al.  
Final report for scientific research and technology academy.
- Capacity development for clean development mechanism project  
CD4CDM –UNEP - Project 2002-2005  
Y. Barakat  
**UNEP Project –Oct. 2003, Addis Ababa – ATHIOPIA**

- National strategy for clean development mechanism project  
**WB PROJECT 1999-2001**
- An overview for more sustainable energy production and use through the activation of clean development mechanism(C D M)  
A. Amine, Y.Barakat  
United Nations –Economic and social commission for western ASIA ESCWA  
**15-17 Oct.2002, Beirut -Lebanon**
- Energy conservation study for current and future activities in UPPER EGYPT  
Y. Barakat et. al  
Final report for scientific research and technology academy project may 2002
- Pollution prevention concept and application. case study in some public industries sector  
**The international conférence for development and environnent in arab world.**  
**Assuit university 26-29 March, 2002 Egypt.**
- The EGYPTIAN NATIONAL STEATAGY STUDY NSS on Clean Development Mechanism CDM – final report for THE WORLD BANK project, Cairo – march 2002
- PPDA- ECEP- USAID Project at Orient Linen and Cotton Nov. 97- Alex.
- PPDA- ECEP- USAID Project at **Middel East Company for Paper (SIMO)**. Apr.96 – Bahtim-Cairo.
- PPDA- ECEP- USAID Project at **El Nasr Company for Rubber Products**
- PPDA- ECEP- USAID Project at **National Company for Maize Products** Oct.95, 10th Of Ramadan.
- PPDA- ECEP- USAID Project at **Arab Aluminum Comp.** Oct. 95- El Ismalia
- PPDA- ECEP- USAID Project at **Nasr Company for Wool and Selected Textiles ( STIA )**. Sep.95- Alex.
- Cleaner Production in Metal Industries Sector. Egypt. Sep.95
- PPDA- ECEP- USAID Project at **The United And Arab Spinning and Weaving** ( unirab). Sep.95- Alex.
- PPDA- ECEP- USAID Project at **Cairo Silk Textiles Company**. Mar.95 Shobra El Khema- Cairo
- PPDA- ECEP- USAID Project at **The Starch And Glucose company**. Feb.95- El Maasara- Cairo
- PPDA- ECEP- USAID Project at **STEELCO** .Feb.95- Ain Helwan- Cairo
- PPDA- ECEP- USAID Project at **INCOSTEEL** Company. Dec. 94 –6Th Of oct.
- Pollution Prevention Diagnostic Assessment PPDA- ECEP- USAID Project at **KAZAREEN** Company. Nov. 94-6th Of Oct. City- Egypt

### **C – Last Publications (Energy Saving)**

1) High electrochemical energy-storage performance promoted by SnSe nanorods 1 anchored on rGO nanosheets

*Published by: J. Electroanal. Chem., 2021, 883, 115063.*

*Authors: S. Ahmed, S. G. Mohamed, S. Y. Attia, Y. F. Barakat, M. Shoeib and N. Tantawy.*

2) Supercapacitor electrode materials: addressing challenges in mechanism and charge storage.

*Published by:* <https://doi.org/10.1515/revic-2020-0022>

*Received October 6, 2020; accepted February 24, 2021;*

*published online March 10, 2021*

*Authors:* Sayed Y. Attia, Saad G. Mohamed, Yosry F. Barakat, Hamdy H. Hassan and Wail Al Zoubi.

3) A single-step synthesis and direct growth of microspheres containing the nanoflakes-like structure of  $\text{Zn}_{0.76}\text{Co}_{0.24}\text{S}$  as a high-performance electrode for supercapacitors.

*Published by:* *J. Energy Storage*, 2020, 29, 101349

*Authors:* S. Y. Attia, Y. F. Barakat, H. H. Hassan and S. G. Mohamed

4) Exploring the electrochemical properties of Cu-substituted  $\text{Li}_2\text{CoTi}_3\text{O}_8$  as anode material for lithium-ion batteries

MOTAZ G FAYED<sup>1,2</sup>, SAAD G MOHAMED<sup>1,\*</sup>, YOSRY F BARAKAT<sup>1</sup>, E E EL-SHEREAFY<sup>2</sup> and M M RASHAD<sup>3</sup>

*Bull. Mater. Sci.* (2022) 45:130

MS received 6 January 2022; accepted 30 March 2022

5) A three-dimensional directly grown hierarchical grapes-like Nickel Manganese Selenide for high-performance Li-ion battery and supercapacitor electrodes

A.M. Abuelftooh <sup>a</sup>, M.G. Fayed <sup>b</sup>, S.Y. Attia <sup>b</sup>, Y.F. Barakat <sup>b</sup>, N.S. Tantawy <sup>a</sup>, S.G. Mohamed <sup>b, \*</sup>

<sup>a</sup> Chemistry Department, Faculty of Women for Arts, Science and Education, Ain Shams University, Cairo, Egypt

<sup>b</sup> Mining and Metallurgy Engineering Department, Tabbin Institute for Metallurgical Studies (TIMS), Tabbin, Helwan 109, Cairo 11421, Egypt

Materials Today Chemistry 26 (2022) 101187

6) Electrophoretic deposition of hydroxyapatite/chitosan nanocomposites: the effect of dispersing agents on the coating properties

M. S. Gaafar,<sup>a</sup> S. M. Yakout,<sup>b</sup> Y. F. Barakat <sup>a</sup> and W. Sharmoukh <sup>\*b</sup>

Royal Society Of Chemistry

RSC, ADV, 2022,12 ,27564

**D - Projects**  
**National**

**STDF project**

**Project Title:** Fabrication of Nanostructured-Transition Metal Sulfides for High-Performance Supercapacitors

**Project ID:** 33480 (STDF), STDF Youth

**Project Type:** Call 9, Young Researchers Grant (STDF-YRG), STDF Youth,

**Publications:** Journal of Energy Storage 29 (2020) 101349

**Title:** A single-step industrial fabrication of nanostructured  $\text{Zn}_{0.76}\text{Co}_{0.24}\text{S}$  as a high-performance electrode for supercapacitors.

**Internal Projects**

*1 - "Effect of Nanometric – particles Addition on Structural, Thermo – mechanical and Electrochemical Properties of Ag - 10wt. % Al Alloy"*

*2 - "Synthesis and investigation of Fe-doped ZnS nanostructures as a high-performance energy storage material"*