

**Khamis, Ahmed**

Professor, Chemical and Materials Engineering Department, King Abdulaziz University

**Education**

<i>Degree</i>	<i>Field of Study</i>	<i>Institution</i>	<i>Year</i>
PhD	Physical Chemistry	Helwan Univ., Egypt	1993
MS	Physical Chemistry	Helwan Univ., Egypt	1987
BS	Chemistry	Cairo Univ., Egypt	1982

**Academic Experience**

<i>From</i>	<i>To</i>	<i>Institution</i>	<i>Rank</i>	<i>Title</i>	<i>Full or Part Time</i>
1993	2001	Helwan Univ.	Assist. Prof.		Full time
2001	2006	Helwan Univ.	Assoc. Prof.		Full time
2007	2009	King Abdulaziz Univ.	Assoc. Prof.		Full time
2010	Date	King Abdulaziz Univ.	Professor		Full time

**Non Academic Industrial Experience (including Consultations)**

<i>From</i>	<i>To</i>	<i>Company/Entity</i>	<i>Title</i>	<i>Position Description (Brief)</i>	<i>Full or Part Time</i>
1994	1997	Ministry of Industry Detergent Sector Committee	member	Formulation and measures	Part time

**Funded Research Projects and Patents from the Past Five Years**

1. Specialty Chemicals Synthesis using Functionalized Mesoporous Catalysts., King Abdulaziz University, Project no. 4-011/430, 2009.
2. Preparation, Characterization of metal oxide nanoparticles-loaded on activated local clay samples: Application in purification of municipal and industrial wastewaters, Funded by the Center of Excellence for Environmental Studies (PI), 2010.
3. Photo-catalysts for removal of organics from industrial waste-waters and domestic air cleaning under mild conditions. SR 2,250,000. Funded by The National strategic plans funded by KACST (PI), project No. 138-WAT-3.
4. Preparation, Characterization and Testing of Catalytic Membrane Reactors in Oxidative Dehydrogenation of Alkanes to Olefins. SR 2,000,000. Funded by The National strategic plans funded by KACST (PI), project No. 8-136-PET-3.

**Certifications and Professional Registrations**

Registered by Professional Chemists in Egypt.

**Current Membership in Professional Societies and Organizations**

<i>Society/organization</i>	<i>Rank</i>	<i>Member Since</i>
1. Egyptian Chemical Society	Member	1983
2. Saudi Chemical Association	Member	2008

**Honors and Awards**

1. Member of the Editorial Board of the International Journal of Inorganic and Nonorganic Materials, USA.

**Institutional and Professional Services (administration, committees, units, etc.)**

1. Council Secretary, Department of Chemical & Materials Engineering 2009 to date.
2. Member of The Scientific Committee of National Research Projects, Deanship of Scientific Research, King Abdulaziz University, 2010-2011.

**Principal Publications/Presentations from the Past Five Years**

1. Arafat, A., Covalently Bound Organic Monolayers for Biosensor Applications, Journal of Nano and Bio-materials 2, 1-5, (2009) 22-3,.
2. Arafat, A. and Alhamed, Y., Catalytic activity of mesoporous catalysts in Friedel-Crafts benzylation of benzene, Journal of Porous Materials, 16, (2009) 565-572.
3. Rosso, M., Giesbers, M., Arafat, A., Schroën, K.G.P.H. and Zuilhof, H., Covalently Attached Organic Monolayers on SiC and SiN<sub>4</sub> Surfaces: formation using UV light at room temperature, Langmuir, 25, (4), 2009, 2172-2180.
4. Marcelis, A., Arafat, A., Zuilhof, H., Achten, R., Giesbers, M., Scheres, L., Sudhölter, E. and De Smet, L., Covalent attachment of bent-core mesogens to silicon surfaces, Langmuir 2009, 25, (3), 1529-1533.
5. Arafat, A. Alhamed, Y. Alzahrani, A., Metal-loaded mesoporous materials for production of dimethyl carbonate, The 19th annual Saudi Arabia-Japan Symposium "Catalysis in Petroleum Refining & Petrochemicals", Nov. 8-9, Dahrn, Saudi Arabia.; 2009.
6. L. Petrov, Y. Alhamed, A. Arafat, A. Alzahrani, M. Daous, M. AL-Hazmi (Jun 6-9, 2010), Catalyst for Selective CO Oxidation in a Hydrogen Stream, International Conference on the Frontiers of Catalytic Science and Technology, Dalian, China.
7. Arafat, A. Alhamed, Y. and M. Daous, Covalent Biofunctionalization of silicon surfaces, Presented at The American Chemical Society Symposium meeting, San Francisco, March 21-24, 2010.
8. Arafat, A. M.A. Daous, A Short Route of Covalent Biofunctionalization of Silicon Surfaces, Sensors and Actuators B: Chemical 2011, 152(2), 226-234.
9. Arafat, A. M.A. Daous, Silicon and Silicon-related Surfaces for Biosensor Applications in: "Biosensors for Health, Environment and Biosecurity / Book 3", ISBN 978-953-307-444-3., InTech, Austeria, 2011.
10. A. Arafat, M.A. Daous and E. AlShareef, Titanium-loaded photocatalysts for removal of organic dyes from Wastewater AIChE 2011 Fall Meeting in Minneapolis, USA, October 2011. (Oral Presentation).

**Chapter in a Book**

Arafat A., M. Daous(2011), Silicon and Silicon-related Surfaces for Biosensor Applications, in *Environmental Biosensors*, Vernon Somerset, Ed., Intech, , Rijeka, Croatia pp.171-192.

**Recent Professional Development Activities (Workshops, training, etc.)**

Heterogeneous Catalysis, A workshop organized by Sabic Chair in Catalysis, Chemical & Materials Engineering Department, King Abdulaziz University, February, 2008.