**Alhamed, Yahia**
Professor, Chemical and Materials Engineering Department, King Abdulaziz University

**Education**

| *Degree* | *Field of Study* | *Institution* | *Year* |
|---|---|---|---|
| PhD | Chemical Engineering | University of Waterloo | 1990 |
| MS | Chemical Engineering | University of Waterloo | 1985 |
| BS | Chemical Engineering | King Saud University | 1981 |

**Academic Experience**

| *From* | *To* | *Institution* | *Rank* | *Title* | *Full or Part Time* |
|---|---|---|---|---|---|
| 1981 | 1982 | King Abdulaziz University | Research assistant | | |
| 1982 | 1985 | University of Waterloo | MS student | | Full Time |
| 1985 | 1990 | University of Waterloo | PhD Candidate | | Full Time |
| 1990 | 1999 | King Abdulaziz University | Assist. Prof. | | Full Time |
| 1999 | 2009 | King Abdulaziz University | Assoc. Prof. | | Full Time |

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

| *From* | *To* | *Company/Entity* | *Title* | *Position Description (Brief)* | *Full or Part Time* |
|---|---|---|---|---|---|

None

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

1. Gaber Edris, Abdulrahim Alzahrani, and Yahia Alhamed, Removal of Heavy Metals from Industrial Wastewater by Green Microalgae, Project funded by KACST, Project No. 27/ October 2010.
2. Yahia A. Alhamed, L. Petrov, Abdulrahim A. Alzahrani, Mohammad A. Daous, Hamad Almigrin and Ahamed K. Arafat, Catalyst Development for the Dehydrogenation of Propane to Propene, KACST, Project No. AR_29_320, 2010.
3. Gaber Edris, Abdulrahim Alzahrani and Yahia Alhamed "Utilization of Microalgae for Enhanced $CO_2$ Sequestration in a Photobioreactor" – Project funded by Deanship of Scientific Research, King Abdulaziz University, Project No. 315/135/431, October 2011.
4. Gaber Edris, Abdulrahim Alzahrani and Yahia Alhamed "Treatment of Oilfield Produced Water by Rotating Biological Contactor: Pilot plant study" – Project funded by Deanship of Scientific research, King Abdulaziz University, Project No. 315/137/431, October 2011.
5. Waleed Alalayah, Gaber Edris, Abdulrahim Alzahrani and Yahia Alhamed, Biohydrogen production by Chlorella vulgaris in a solar flat plate bioreactor - Project funded by Deanship of Scientific research, King Abdulaziz University, Project No February 2014

**Certifications and Professional Registrations**

None

**Current Membership in Professional Societies and Organizations**

| | *Society/organization* | *Rank* | *Member Since* |
|---|---|---|---|
| 1. | American chemical Society | Member | |
| 2. | Saudi Chemical Society | Member | |

**Honours and Awards**

None

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

1. Coordinator of academic affairs committee at the Chemical and Materials Engineering Department. King Abdulaziz University

2. Member of the social committee for the Fourth Saudi Engineering Conference
3. Chairman of curriculum committee at the Chemical and Materials Engineering Department. King Abdulaziz University.
4. Head of the committee of SABIC chair in catalysis at KAU 2006 – to date
5. Chairman Chemical & Materials Engineering department 2007 – to date
6. Member of the Scientific Research and Technology unit of the Deanship of Scientific Research
7. Member of the permanent committee for promotions 2011 – to date
8. Member of the higher committee of centres of excellence 2011 – to date

## Principal Publications/Presentations from the Past Five Years

1. H. Zhang, Y. Alhamed, W. Chu, Z. Ye, A. Al-Zahrani, L. Petrov, Controlling cobalt-support interaction in Co/CNTs catalysts and catalytic performance for hydrogen production via ammonia decomposition, Appl. Catal. A: General, 464-465 (2013) 156-164.
2. A.H. Elshazly, A.A. Al-Zahrani, Y.A. Alhamed, S.A. Nosier, "Effect of fixed bed characteristics on the performance of pulsed water flow humidification-dehumidification solar desalination unit", Desalination and Water Treatment, Vol. 51, Issue 4-6( 2013) p. 863-871.
3. Hossein Jafari, Haleh Tajadodi, Dumitru Baleanu, Abdulrahim A. Al-Zahrani, Yahia A. Alhamed, Adnan H. Zahed, "Fractional sub-equation method for the fractional generalized reaction Duffing model and nonlinear fractional Sharma-Tasso-Olver equation", Central European Journal of Physics, (2013) DOI: 10.2478/S 11534-013-0203-7.
4. A.H. Elshazly, A.A. Al-Zahrani, Y.A. Alhamed, "Kinetics and Performance Analysis of Batch Electro coagulation Unit for the Removal of a Mixture of Phosphate and Nitrate Ions from Industrial Effluents", Int. J. Electrochem. Sci. 8 (2013) 3176 - 3185.
5. Hossein Jafari, Haleh Tajadodi, Dumitru Baleanu, Abdulrahim A. Al-Zahrani, Yahia A. Alhamed, Adnan H. Zahed," Exact Solutions of Boussinesq and KDV-MKDV equations by fractional sub-Equation method", Romanian Reports in Physics, Accepted for publication (2013).
6. H. Zhang, Y. Alhamed, Y. Kojima, A. Al-Zahrani, L. Petrov, Cobalt supported on carbon nanotubes: An efficient catalyst for ammonia decomposition, Compt. rend. Acad. bulg. Sci., 66, No 4, 2013, 519-524.
7. Y. Alhamed, K. Kumbilieva, A. Al-Zahrani, L. Petrov, Nanostructure effects on the kinetics and deactivation at reactions over multifunctional catalysts, Chem. Eng. Sci., 105 (2014) 77-91.
8. Muhammad Umar · Y. A. S. Alhamed · A. Alzahrani, "Residue Curve Map Determination and Synthesis of Ethyl *tert*-Butyl Ether via Reactive Distillation", Arab J Sci. Eng., DOI 10.1007/s13369-013-0937-y (2014)
9. H. Zhang, Y. Alhamed, Y Kojima, A. Al-Zahrani, Hiroki Miyaoka, L. Petrov, Structure and catalytic properties of Ni/CNTs and Ni/AC catalysts for ammonia decomposition, International Journal of Hydrogen Energy, 39(2014) 277 -287.

## Patent

1. Y. Alhamed, A. Al Zahrani, M. Daous, K.M. El-Yahyaoui, Process of oxidative dehydrogenation using a boria-alumina catalyst, Pat. No. Appl.: US2010/0179358 A1.
2. L. Petrov, Y. Alhamed, A. Al Zahrani, M. Daous, M. Umar, M. Al-Hazmi, Platinum containing catalysts for propane dehydrogenation, EPA №12005440.8/26.07.2012.
3. L. Petrov, Y. Alhamed, A. Al Zahrani, M. Daous, M. Umar, M. Al-Hazmi, Alkane dehydrogenation catalyst and process for its preparation, EPA № 12006767.3/27-09-2012 .
4. L. Petrov, Y. Alhamed, A. Arafat, A. Al Zahrani, M. Daous, M. Al-Hazmi, Gold containing catalysts for propane dehydrogenation, submitted.
5. H. Zhang, L. Petrov, Y. Alhamed, A. Al-Zahrani, **M. Daous**, M. Al-Hazmi, Mixed oxide catalysts for ammonia decomposition, submitted

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

None