

CURRICULUM VITAE

Radwa A. Elsalamony

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Education

June 2007 – May 2010

▪ **PhD in Physical Chemistry**

Chemistry Department, Faculty of Science
Ain Shams University, Cairo, Egypt.

Thesis Title: "Photocatalytic Degradation of Organic Pollutants Containing Various Functionalities in Aqueous Solution Using Transition Metal Oxides as Photo-catalysts"

July 2001 – June 2005

▪ **M Sc in Physical Chemistry**

Chemistry Department, Faculty of Science
Ain Shams University, Cairo, Egypt.

Thesis Title: "Reforming of Natural Gas by Carbon dioxide to Produce Synthesis Gas"

September 1999 – July 2000

▪ Pre-Masters Courses in Physical Chemistry

Chemistry Department, Faculty of Science
Ain Shams University, Cairo, Egypt.

Courses attended:

Photochemical Reactions, Quantum Chemistry, Surface Tensions, Catalysis, Thermodynamic, Corrosion, Electrochemistry and Cement Chemistry.

September 1994– July 1998

▪ BSc in Chemistry [Grade: Very Good, I am arranged as the *second student* in chemistry department]

Chemistry Department, Faculty of Science
Ain Shams University, Cairo, Egypt.

Graduation Project: Chemistry of thiazolidine ring, Photo-catalysis.

Work History

December 2015- till now

Assistance professor

Reactor Engineering and Operations - Process Design and Development Department
Egyptian Petroleum Research Institute (EPRI), Cairo – Egypt

Job Description:

1. My current work focuses on modification of many catalytic composites systems based on agriculture waste like RSA and SCB in removal of dye, phenol compounds and heavy metals from wastewater.
2. Waste water treatment has been in progress as one of the tasks of my job. I interest to enlarge my work scale by cooperate with engineering to make proto-type.
3. Preparation and utilization of ceria based catalysts for hydrogen production through steam reforming of ethanol.
4. Continue the work in our STDF project "**Development of Novel Catalysts and Membrane Reactors for the Dry Reforming of Natural Gas Using Carbon Dioxide**"
5. I plane to study the production of petrochemical by Fischer-Tropsch technique.

January 2011- December 2015

• Researcher

Reactor Engineering and Operations - Process Design and Development Department

Egyptian Petroleum Research Institute (EPRI), Cairo – Egypt

Job Description:

I studied many systems for modification of nano-titania to be active in the dyelight spectrum, Preparation of Disc-Shaped Composite Systems from Rice straw ash –titania (RSA-TiO₂), Preparation of mesoporous activated carbon from (Sugar can bagasse) SCB in terms of removal aromatic, dye compounds and heavy metals from wastewater. Waste water treatment has been in progress as one of the tasks of my job. Utilization of nano-structured catalytic materials for hydrogen production through steam reforming of ethanol, syngas production through dry reforming of natural gas. Ddesign a continuous flow fixed bed system under atmospheric pressure for different application in petroleum industries.

November 2007- January 2011

• Research Associate

Special Operations - Process Design and Development Department.

Egyptian Petroleum Research Institute (EPRI), Cairo – Egypt.

Job Description:

I worked in *the Hungarian – Egyptian project: "Photocatalytic Degradation of oil in Refinery Waste Water"*. The photo-catalytic degradation of chloro-phenols. They belong to a notable group of pollutants because of their high toxicity, and hardly biodegradable, and are difficult to remove from the environment.

Photocatalytic degradation of chloro-phenols using UV light was investigated over meso-porous catalysts. Ti-MCM-41(20), Ti-MCM-41(10), TiO₂/MCM-41, Fe-Ti-MCM-41, TiO₂/Fe-MCM-41 and TiO₂/SBA-15 catalysts were prepared from the corresponding metal salts by the sol-gel technique. The catalyst were investigated using X-ray diffraction (XRD), FT-IR spectroscopes, scanning electron microscopy (SEM), transmission electron microscopy (TEM), and BET surface areas of the samples were determined using the nitrogen adsorption and desorption isotherms.

100 ppm was used as model pollutants. High purity 2,4,6-trichlorophenol and 4-chlorophenol solutions individually and 0.1 g/L of each catalyst was tested at different irradiation times. At each interval time 10 ml of irradiated solution was taken and analyzed by High Performance Liquid Chromatography (HPLC), Ion Chromatography (IC). Aromatic intermediates, organic acid and chloride ions were detected. The reaction mechanism has been proposed.

All the catalysts showed reactivity towards the photo-catalytic degradation reaction but with varying degrees. All the catalysts obeyed the 1st order reaction rate assumption with respect to 2,4,6-TCP and 4-CP. The dependence reaction rate constant on temperature was studied by the Arrhenius' plot.

January 2001- October 2007

• Chemist

Process Design and Development Department.

Egyptian Petroleum Research Institute (EPRI), Cairo – Egypt

Job Description:

I designed and implemented a continuous flow system to using in reforming reaction. Reforming of natural gas with carbon dioxide to synthesis gas (H₂ + CO) has been investigated over rhodium, ruthenium and iridium (0.5 wt %) supported on γ – alumina catalyst. The catalysts were prepared from the corresponding metal salts by the impregnation technique. 2 gm of each catalyst were tested in a tubular flow reactor 13 mm diameter and 120 mm length. The catalyst's activity was investigated at three reaction temperatures namely 600, 700 and 800 °C, and different weight hourly space velocities 18000, 36000, 45000 and 60000 cc.g⁻¹.h⁻¹. Both major and minor components in the natural gas were determined using high sensitive gas chromatographic techniques.

All the catalysts showed reactivity towards the reforming reaction but with varying degrees. Generally; the activity of the reforming reaction towards all natural gas components increased with increasing temperature and decreasing space velocity i.e. increasing contact time . From the results obtained, the optimum reforming conditions for each catalyst w.r.t . natural gas components could be established.

In addition, the optimum conditions for obtaining the maximum H₂/CO ratio were also evaluated for the investigated catalysts.

The maximum ratio for Rh/ γ - Al₂O₃ catalyst was at 700 °C and 36000 cc g⁻¹ h⁻¹, for Ru/ γ - Al₂O₃ catalyst was at 800 °C and 18000 cc g⁻¹ h⁻¹ and for Ir/ γ - Al₂O₃ catalyst was at 700 °C and 36000 cc g⁻¹ h⁻¹.

All three catalysts obeyed the 1st order reaction rate assumption w.r.t. both reactants CO₂ and CH₄ under all reaction temperatures. The dependence of the reaction rate constant on temperature was determined by the Arrhinus' plot.

The average activation energy for CO₂ was 46.25E3 J/mol. and that of CH₄ was 31.53E3 J/mol.

August 1999 – December 2000

• **Chemist**

Radioisotope Center,
El behoos St. , Dokki , Cairo , Egypt

Job Description:

I take training on the chemical reactions, chemical compound preparation and analytical chemistry.

Research into grants

Some of the research work I have done over the last few years; which have been already published in peer reviewed journal, or under publication, have received financial funding from different agencies and organization either in Egypt or from overseas. The list of these grants is as following:

- [1] **Member in the Hungarian – Egyptian project: "Photocatalytic Degradation of oil in Refinery Waste Water"**; 2008- 2010.
- [2] **Member in "Photocatalytic Degradation of Petroleum and Industrial Pollutants Using Nano-materials and Nano-structured Thin Film Semiconductors"** Project supported by EPRI; 2010.
- [3] **Member in "Hydrogen production by steam reforming of bio-ethanol over nano-Ceria catalysts prepared by spray freezing method"** Project supported by *Ministry of State for Scientific Research; Science & Technology Development Fund (STDF)*; 2013-2015.
- [4] **Co-PI in "Catalytic Dry Reforming of natural Gas by Carbon Dioxide to Produce Synthesis Gas (CO+H₂)"**; Project supported by EPRI; 2013-2015.
- [5] **Member in "Development of Novel Catalysts and Membrane Reactors for the Dry Reforming of Natural Gas Using Carbon Dioxide"** project, funded by the Ministry of State for Scientific Research; Science & Technology Development Fund (STDF); 2015.

Publications

1. **"Kinetics of Carbon Dioxide Reforming of Natural Gas Using Different Catalysts"** S. A. El-Temtamy; S. A. Ghoneim; A. K. El-Morsy; A. Y. El-Naggar; **R. A. El-Salamony**, *Petroleum Science and Technology* 27 (2009)1661–1673.
2. **"Ni supported high surface area CeO₂-ZrO₂ catalysts for hydrogen production from ethanol steam reforming"** Mohamed A Ebaid, Dalia R Abd El-Hafiza, **Radwa A. Elsalamony**, Lamia S. Mohamed, *RSC Advances* 2 (2012) 8145–8156.
3. **"Enhancement of Hydrogen Production via Hydrogen Peroxide as an Oxidant"** **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz, Mohamed A. Ebiad, Abdo M. Mansour and Lamia. S. Mohamed, *RSC Advances* 3 (2013) 23791.
4. **"Catalytic Reforming of All Hydrocarbons in Natural Gas with Carbon Dioxide to Produce Synthesis Gas over Rhodium-Alumina Catalyst"** A. Y. El-Naggar, S. A. Ghoneim, **R. A. El-Salamony**, S. A. El-Tamtamy And A. K. El-Morsi, *Int. J. Chem. Sci.* 11(1) (2013) 39-52.
5. **"Response Surface Methodology for Carbon Dioxide Reforming of Natural Gas"** Tahani S. Gindy, Seham A. El-Temtamy, Salwa A. Ghoneim, **Radwa A. El-Salamony**, Ashraf Y. El-Naggar and Akila K. El-Morsi, *accepted to Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 38 (9) (2016) 1236–1245.
6. **"Numerical Evaluation and Analysis for Hydrogen Production via Ethanol Steam Reforming"** Tahany Gendy, **Radwa Elsalamony**, Salwa Ghoneim, Lamia Mohamed, Mohamed Ebiad, Dalia El-Hafiza; *Chemical and Process Engineering Research* 21 (2014) 107-117.
7. **"Hydrogen selectivity and carbon behavior during gasoline steam reforming over nano-Al₂O₃ catalysts"** Dalia R. Abd El-Hafiz, Mohamed A. Ebiad, **Radwa A. El-salamony**, *Mater Renew Sustain Energy* 3 (34) (2014) 1-13.

8. **“Catalytic Dry Reforming of Natural Gas for Synthesis Gas Production over Ru/ γ -Al₂O₃ Catalyst”** Radwa A. El-Salamony, Salwa A. Ghoneim, Ashraf Y. El-Naggar, Seham A. El –Tamtamy and Akila K. El-Morsi; *ADRRRI Journal of Engineering and Technology* 1(1) (2014) 1-16.
9. **“Gas chromatographic assessment for catalytic reforming of natural gas with carbon dioxide to synthesis gas. I- over rhodium- alumina catalyst”** El-Naggar, A.Y., Ghoneim, S.A., El-Salamony, R. A., El-Tamtamy, S.A., El-Morsi, A.K., *Egyptian Journal of Chemistry* 48 (4) (2005) 517 – 527.
10. **"Biomass to fuel gas conversion through a low Pyrolysis temperature induced by Gamma radiation: an experimental and simulative study"** Ahmed M. A. El Naggar, Hussien A. El Sayed, Radwa A. Elsalamony, Ahmed A. Abdelrazak, *RSC Advances* 5 (2015) 77897-77905.
11. **"Review on Innovative Catalytic Reforming of Natural Gas to Syngas"** Salwa A. Ghoneim, Radwa A. El-Salamony, Seham A. El-Temtamy, *World Journal of Engineering and Technology* 4 (1) (2016) 116.
12. **Book in “PHOTOCATALYTIC DEGRADATION OF CHLOROPHENOL IN WATER”** LAP LAMBERT academic publisher; Radwa Elsalamony
13. **“Photocatalytic Disc-Shaped Composite Systems for Removal of Hazardous Dyes in Aqueous Solutions”** Salah A. Hassan and Radwa A. El –Salamony; *Canadian Chemical Transactions* 2 (1) (2013) 57-71.
14. **“Use of SiO₂- TiO₂ Nanocomposite as Photocatalyst for the Removal of Trichlorophenol: A Kinetic Study and Numerical Evaluation”** Heba Gobara, Radwa El-Salamony, Dalia Mohamed, Marwa Mishrif, Yasser Moustafa and Tahani Gendy, *Chemistry and Materials Research* 6 (6) 2014, 63-81.
15. **“Influence of Preparation Method on Copper Loaded Titania Nanoparticles: Textural, Structural Properties and Its Photocatalytic Activity towards P-Nitrophenol”** Radwa A. Elsalamony, Dalia A. El-Hafiz, *Chemistry and Materials Research* 6 (4) (2014) 122-134.
16. **"Different Outlet for Preparing Nano-Tio₂ Catalysts for The Photodegradation of Black B Dye in Water ;** Ahmed K. Aboul-Gheit, Doaa S. El-Desouki and Radwa A. ElSalamony; *Egyptian Journal of Petroleum* 23 (2014) 339–348.
17. **“TiO₂ Anatase Nano-Powder Prepared by a gamma Ray Irradiation and Photocatalytic Activity”** Radwa A. Elsalamony, Salwa A. Ghoneim; 2nd International Conference on Energy Systems and Technologies (2013) 285-293.
18. **"Preparation of nanostructured ruthenium doped titania for the photocatalytic degradation of 2-chlorophenol under visible light"** Radwa.A. El-Salamony and Sawsan. A. Mahmoud, *Arabian Journal of Chemistry* (2012) article in press.
19. **"Mesoporous Ti-MCM-41 materials as photodegradation catalysts of 2,4,6-trichlorophenol in water"** A.K. Aboul-Gheit, S.M. Abdel-Hamid, S.A. Mahmoud, R. A. El-Salamony, J. Valyon, M. R. Mihályi, Ágnes Szegedi; *J. Mater. Sci.* 46 (2011) 3319–3329.
20. **"Factorial design analysis for biosorption of Reactive Red-84 dye using fermentation spent waste biomass, biosorbent regeneration and desorbed dye photodegradation using TiO₂ nanoparticles"** Nour Sh. El-Gendy, Salem S. Abu Amr, Radwa A. El-Salamony, Hussein N. Nassar; *Desalination and Water Treatment* 56 (12) (2014) 3403-3413.
21. **"Highly Stable Nano Ce-La Catalyst for Hydrogen Production from Bio-Ethanol"** Dalia R. Abdel-Hafiz, Mohamed A. Ebiad, Radwa A. Elsalamony and Lamia S. Kaid; *RSC Advances* 5(2015) 4292-4303.
22. **"Statistical optimization of Basic Blue 41 dye biosorption by Saccharomyces cerevisiae spent waste biomass and photo-catalytic generation using acid TiO₂ hydrosol"** Nour Sh. El-Gendy, Radwa A. El-Salamony, Salem S. Abu Amr, Hussein N. Nassar; *Journal of Water Process Engineering* 6 (2015) 193–202.

23. "Preparation, Stability and Photocatalytic Activity of Titania Nanofluid Using Gamma Irradiated Titania Nanoparticles by Two-Step Method" **Radwa A. Elsalamony**, Rania E. Morsi, Ahmed M. Alsabagh; 3rd International Conference on Energy Systems and Technologies (2015) 285-293.
24. "Influence of Gamma Radiation on the Improvement of Stability, Conductivity and Photoactivity of Titania Nanofluid" **R. A. Elsalamony**, R. E. Morsi, A. M. Alsabagh - Journal of Nanofluids 4(4) (2015) 442-448.
25. "Superabsorbent Enhanced-Catalytic Core/Shell Nanocomposites Hydrogel for Efficient Water Decolorization", Rania E. Morsi and **Radwa A. Elsalamony**, New J. Chem., 40 (2016) 2927—2934.
26. "Sonophotocatalytic degradation of Eriochrome black-T dye in water using Ti grafted SBA-15" Heba M. Gobara, **Radwa A. Elsalamony**, Salah A. Hassan J. porous Mater. 23 (2016) 1311–1318.
27. "Green synthesis of fluorapatite from waste animal bones and the photo-catalytic degradation activity of a new ZnO/green biocatalyst nano-composite for removal of chlorophenols" Nour Sh. El-Gendy, **Radwa A. El-Salamony**, Sherif A. Younis, Journal of Water Process Engineering 12 (2016) 8–19.
28. "Advances in Photo-catalytic Materials for Environmental Applications" **Elsalamony R. A.** Research & Reviews: Journal of Material Sciences, 4 (2) 2016, 26-50.
29. "Titania modified activated carbon prepared from sugarcane bagasse: adsorption and photocatalytic degradation of methylene blue under visible light irradiation" **R. A. El-Salamony**, E. Amdeha, S. A. Ghoneim, N. A. Badawy, K. M. Salem & A. M. Al-Sabagh, Environmental Technology, <http://dx.doi.org/10.1080/21622515.2017.1290148>
30. "Potential application of 15Mo/SBA-15 photo-catalyst for removal of multiple organic pollutants from water environment" **Radwa A. Elsalamony**, Heba M. Gobara and Sherif A. Younis, BUE ACE1 Sustainable Vital Technologies in Engineering & Informatics.
31. "Zn⁺² doped x-Ti-SiO₂ tricomposites for Enhancement the Photo-catalytic Degradation of Phenol under UV irradiation" **Radwa A. Elsalamony**, Heba M. Gobara, Sherif A. Younis and Yasser M. Moustafa, accepted for publication in J. Sol-Gel materials and technology.

Conferences

- [1] 14th International conference on petroleum, mineral resources and development, 27-29 March, 2011, Cairo, Egypt "Catalytic Dry Reforming of Natural Gas for Synthesis Gas Production over Ru/γ-Al₂O₃ Catalyst"; **R. A. El-Salamony**, S. A. Ghoneima, A. Y. El-Naggara, S. A. El-Tamtamya and A. K. El-Morsi.
- [2] 5th Saudi Science Conference (SSC5'2012), Makka, Kingdom of Saudi Arabia "Monitoring of Hydrogen Produced from Ethanol Steam Reforming Reaction using Ni/CeO₂-ZrO₂ Catalyst by Gas Chromatography"; **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz, Mohamed A. Ebiad, Abdo M. Mansour, Lamia. S. Mohamed.
- [3] 15th International conference on petroleum, mineral resources and development, 8-10 April, 2012, Cairo, Egypt
 - a. "The Role of Titanium Precursor Type on the Preparation Of Nano-TiO₂ Photoactive Catalyst-Testing of Black b Dye Photodegradation" Ahmed K. Aboul-Gheit, Doaa S. El-Desouki and **Radwa A. ElSalamony**.
 - b. "Monitoring of Hydrogen Produced from Ethanol Steam Reforming Reaction using Ni/CeO₂-ZrO₂ Catalyst by Gas Chromatography" **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz, Mohamed A. Ebiad, Lamia. S. Mohamed.
- [4] 16th International conference on petroleum, mineral resources and development, 10-12 February, 2013, Cairo, Egypt

- a. "Enhancement of Hydrogen Production via Hydrogen Peroxide as an Oxygen Source" **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz , Mohamed A. Ebiad , Lamia. S. Mohamed.
- b. "Hydrogen Production by Steam Reforming of Bioethanol over nano-Ce Catalysts Prepared by Spray Freezing Method" **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz , Mohamed A. Ebiad , Lamia. S. Mohamed.
- [5] 3rd *International Colloids and Energy conference, Xiamen, China 21-24 April (2013)*; "Enhancement of Hydrogen Production via Hydrogen Peroxide as an Oxygen Source" **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz , Mohamed A. Ebiad , Abdo M. Mansour, Lamia. S. Mohamed.
- [6] 2nd *Conference of outputs and applications of scientific research 12 May (2013), Cairo, Egypt* "Discs from Rice Straw Ash for Water Purification from Dye and Heavy Metals", **Radwa A. Elsalamony**, Salah A. Hassan, Ahmed M. Alsabagh.
- [7] 11th *international Conference on chemistry and its role in development, department of chemistry, faculty of science, Mansoura university, Sharm Elshehk, Egypt (11-15 Mars, 2013)*, "Synthesis of SiO₂-TiO₂ Nanocomposite by Novel Material and Its Application in Photocatalytic Activity of Trichlorophenol" Heba M. Gobara, **Radwa A. El-Salamony**, Dalia E. Mohamed, Marwa R. Mishrif, Yasser M. Moustafa.
- [8] 2nd *International Conference on Energy Systems and Technologies, 18 – 21Feb. 2013, Cairo, Egypt*. "TiO₂ Anatase Nano-Powder Prepared by a gamma Ray Irradiation and Photocatalytic Activity" **Radwa A. Elsalamony**, Salwa A. Ghoneim.
- [9] 17th *International conference on petroleum, mineral resources and development, 9-11 February, 2014; Cairo, Egypt*
 a. "Numerical Evaluation and Analysis for Hydrogen Production Via Ethanol Steam Reforming" Tahani S Gendy, Salwa A Ghoneim, Lamia S. Mohamed, **Radwa A. Elsalamony**, Mohamed A. Ebiad and Dalia R. Abd El-Hafiz.
 b. "Response Surface Methodology for Carbon Dioxide Reforming of Natural Gas" Tahani S. Gindy, Seham A. El-Temtamy, Salwa A. Ghoneim, **Radwa A. El-Salamony**, Ashraf Y. El-Naggar and Akila K. El-Morsi.
- c. Synthesis of SiO₂-TiO₂ Nanocomposite by Novel Material and Its Application in Photocatalytic Activity of Trichlorophenol" Heba M. Gobara, **Radwa A. El-Salamony**, Dalia E. Mohamed, Marwa R. Mishrif, Yasser M. Moustafa.
- [9] 18th *International conference on petroleum, mineral resources and development, 9-11 February, 2015, Cairo, Egypt*
 a. "Hydrogen Production by Steam Reforming of Bioethanol over nano-Ce Catalysts Prepared by Spray Freezing Method" **Radwa A. Elsalamony**, Dalia R. Abd El-Hafiz , Mohamed A. Ebiad , Lamia. S. Mohamed.
 b. "Preparation and characterization of TiO₂ supported on activated carbon for photo-catalytic degradation of organic pollutants under visible light irradiation" **R. A. Elsalamony**, E. Amdeha, S.A. Ghoneim, N. A. Badawy, A. A. El-Bayaa and A. M. Al-Sabagh.
- [10] 198th *OMICS Group Conference "International Summit on Past and Present Research Systems of Green Chemistry August 25-27, 2014 Hilton Philadelphia Airport, USA."* Biomass to fuel gas conversion through low pyrolysis temperature induced by gamma radiation" Ahmed M A El Naggar, **Radwa A Elsalamony**, Hussien A El-Syed and Fathi S Soliman.
- [11] 3rd *International Conference on Energy Systems and Technologies, 16 – 19Feb. 2015, Cairo, Egypt*. "Preparation, Stability and Photocatalytic Activity of Titania Nanofluid Using Gamma Irradiated Titania Nanoparticles by Two-Step Method" **Radwa A. Elsalamony**, Rania E. Morsi, Ahmed M. Alsabagh.
- [12] *Attending the 5th International Conference of the future of energy, water and food system and changing the climate in the Arab region, 15-16 Marsh 2015.Cairo, Egypt*
- [13] *Attending the 1st international joint symposia on "Product Development and Innovation – PDI" and "Industrial Systems and Operation Management-ISOM" Cairo, Egypt, 3-5 May 2016.*
- [14] *International Conference on Sustainable Development and Economic Security of the Arab, Cairo, Egypt 8-10 May 2016.* "Effect of Titania ratio in ZnO/TiO₂-SiO₂ nanocomposite materials on photocatalytic degradation of phenol" **Radwa A. Elsalamony**, Heba M. Gobara and Sherif A. Younis, Ain Shams University.

[15] 19th International conference on petroleum, mineral resources and development 22-24 February, 2016, Cairo, Egypt "A Comparative Study for Removal of Methylene Blue Dye Over MO-AC (MO = TiO₂, WO₃, NiO, and SnO) Photocatalysts under Visible Light Irradiation" **El-Salamony R.A.**, Amdeha E., Ghoneim S.A., Badawy N.A., Salem K.M., Al-Sabagh A.M.

[16] 1st Annual Conference of the British university in Egypt (BUE) on Sustainable Vital Technology in Engineering and Informatics, November 7-9 (2016) "Potential Application of 15Mo/SBA-15 Photocatalyst for Removal of Multiple Organic Pollutants from Water Environment" **Radwa A. Elsalamony**, Heba M. Gobara and Sherif A. Younis.

[17] Attending the International Conference on "Research and Technology Development for Sustainable Water Resources Management" (REDWARM) December 4-6, 2016, Cairo, Egypt.

[18] 43rd Annual Conference of the Association of Egyptian American Scholars held at Zewail City of Science and Technology, Cairo, Egypt, December 22-24, 2016 "Rice Straw Ash Based Composites for Photocatalytic Degradation of Methylene Blue Dye in Water" **Radwa A. El-Salamony**, Salah A. Hassan.

[19] 20th International Conference on petroleum, mineral resources and development, EPRI, 20-22 February, 2017

a. "Investigation on Visible- Light Photo-Catalytic Degradation of Malachite Green Dye in Presence of ZnO-Activated Carbon Composites" **Radwa A. El-Salamony**, Sara El-Morsi, Abeer Emaam, Nagwa Badawy.

b. "An Enhanced Activated Carbon Modified Bi-Metal Oxides Photo-catalysts Response to Visible Light for Efficient Photo-degradation of Methylene Blue Dye under Sunlight Radiation" **El-Salamony R.A.**, Amdeha E., Ghoneim S.A., Badawy N.A., Salem K.M., Al-Sabagh A.M.

[20] The best presentation and as the best paper work in the international conference in solid waste management that has been held in India from 24-26 November 2016 "Activated Carbon Prepared from Waste Rubber Tire for Uptake of Fuchsin Acid Dye from Aqueous Solutions" Hadeel A. Hosney, Taha E. Farrag, **Radwa A. Elsalamony**, Mohamed Z. Abd-Elwahhab, Joseph J. Farah.

[21] Integration Systems For Creativity and Innovation Management and Its Impact on Economic Development (Agriculture Sector And Food Industries) Held at British University (BUE) in Egypt, Cairo, Arab Republic of Egypt 3-5 April 2017 "Agriculture Waste Based Catalytic Composite Systems for Photocatalytic Degradation of Methylene Blue Dye in Water" **Radwa A. El-Salamony**.

[22] International Conference Woman in Science without Borders-WISAB, Bridging, Networking and Sustainable Development 21-23 March 2017 Hilton Ramses Hotel, Cairo, Egypt "Mesoporous Waste Extracted SiO₂-Al₂O₃ Supported Ni and Ni-H₃PW₁₂O₄₀ Catalyst for Photodegradation of Methyl Orange Dye under UV irradiation" **Radwa A. Elsalamony**, Nasser H. Shalaby, Ahmed M.A. El Naggar.

Skills

- Hard worker, who has positive attitude at work, can analyze and handle work problems.
- The Masters and PhD degrees have increased my ability in the research, data collecting and analysis.
- The variety of collaboration, sharing and learning from one another have in return broaden my knowledge and get myself aware with different research subjects and topics that others working. Briefly it was fantastic way to communicate with others.
- I used to work for different working hours what made me flexible, managing my time effectively and adaptable according to the work requirements.

Research Skills

- I do have good ability to define research problems from a logical analysis of gaps in existing knowledge base. Able to write a research proposal, describing research questions and to express the academic ideas with suitable clarity due to the experience has been gained so far through my research work career.
- Able to formulate hypotheses / research questions for the purpose of designing a research project.
- Have in depth knowledge and understanding of appropriate techniques and their application where it can be applied through my research work.

- Able to write progress reports and summaries on my research work of an appropriate professional standard and of a variety of lengths to suit the purpose.
- Able to present academic work at seminars, meetings and conferences fluently and confidently and been able to respond clearly and persuasively to questions and comments at such occasions.

▪ Research Activities

Act as a reviewer in:

1. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor and Francis publisher) www.taylorandfrancis.com/ ,
2. Chem Comm (RSC publisher), www.rsc.org/chemcomm
3. PCCP (RSC), www.rsc.org/PCCP
4. RSC Advance (RSC) www.rsc.org/RSCAdvance
5. Arabian Journal of Chemistry (Elsevier publisher), www.journals.elsevier.com/arabian-journal-of-chemistry/
6. Asian Journal of Applied Sciences (AJAS), <http://www.ajouronline.com/index.php/AJAS>
7. International Journal of Environmental Monitoring and Protection (Open Science publisher), <http://www.openscienceonline.com/home/index>
8. American Journal of Chemistry and Applications (Open Science publisher), <http://www.openscienceonline.com/home/index>
9. International Research Journal of Public and Environmental Health (IRJPEH). <http://www.journalissues.org/IRJPEH/>
10. International Journal of Agricultural Policy and Research <http://journalissues.org/ijapr-october-2014/>
11. Journal of Engineering and Technology Research (JETR) <http://www.academicjournals.org/jet>.
12. Academic Journals, www.academicjournals.org
13. Physical Sciences Research International, www.netjournals.org
14. Modern Environmental Science and Engineering, Academic star publication company, <http://www.academicstar.us/journalsshow.asp?ArtID=397&showa=showuser>

Membership

- Member in RSC (Royal Society of Chemistry in London).
- Associate Editor of the International Journal of Chemical Studies. <http://www.chemijournal.com/board.html>
- One of Editorial board of the Donnish Journal of Research in Environmental Studies (DJRES). <http://donnishjournals.org/journals.php>
- One of Editorial board of American Association for Science and Technology (AASCIT) of International Journal of Water Science and Engineering (*IJWSE*) : <http://www.aascit.org/journal/ijwse>
- One of Editorial board of American Association for Science and Technology (AASCIT) of Journal of Materials Science and Applications (*MSA*) <http://www.aascit.org/journal/jmsa>
- Member in the American Association for Science and Technology (AASCIT) <http://www.aascit.org/journals/callforeditorial>
- Member in Asian online Journal. www.ajouronline.com
- Editorial Board in Swift Journal of Medicine and Medical Science (SJMMMS) <http://www.swiftjournals.org/sjmmms/index.php>
- Member in Naqaa Nanotechnology Network act as a trainer in application of Nano in water treatment. nakaanetwork.webs.com
- Member in the Arab Union for Sustainable Development

▪ Supervision on Thesis

- ❖ Major Supervisor on PhD. on **“Preparation and characterization of activated carbon modified with titania and study its photocatalytic activity”** Elazhar university.
- ❖ Mainor Supervisor on Msc. on **“Determination of optimum conditions for catalytic hydrocracking of vegetable oils to produce environmentally – friendly biofuels ”** Banha university.
- ❖ Major Supervisor on Msc. on **“Preparation and characterization of photocatalysts and its activity to remove different organic groups in aqueous solution”** Elazhar university.
- ❖ Major Supervisor on Msc. on **“Removal of Heavy Metal from Industrial waste water in the industrial zone of Mostured using Rise Ash”** Institute for Environmental Studies and Research- Ain Shams university.

Activities and Workshop

- Trainer for the students of Faculty of science, Faculty of engineering the main task of this activity focused on explaining to the students the photo-catalytic technique in general and the concept & principles of flow reactor in particular. Utilizing the steam reforming of ethanol to produce hydrogen. Finally, demonstrating the CO₂-reforming of methane to produce syngas as a feed stock in production of petrochemical through Fisher-Tropsch technique.
- I am a member in **training committee in EPRI from 5/2014 – till now.**
- I am a member in **Arab Union for sustainable development and the environment.**
- **I usually Write scientific articles in e-journal** (Journal of Petroleum and Environmental Sciences), which published by EPRI.
- Lecturer in **NAQAA-MEDIC MUST Scientific Symposium Nanotechnology in scientific research**, on "Application of nano-titania in water treatment" **6 September 2014, Misr University for Science and Technology MUST, Egypt.**
- **Theoretical and Interactive Teaching "Industrial Waste Water Treatment of Chemical and Establishments" which held at Egyptian Syndicate of Scientific Professions at 21-23 March 2015**
- Work shop in "**The Innovative Methodologies of Wastewater Treatment and Reuse**" 23rd of May 2015, Zewail city, Egypt.
- "**Training of Trainers**" Course under the auspices of the Arab Union for Sustainable Development, Ain Shams university, Cairo, Egypt 27-28 December 2015
- Work shop in "**Fabrication, Falsification and Plagiarism**" Faculty of Agriculture, Ain Shams university, Cairo, Egypt 27-28 April, 2016
- Work shop in "**Applied scientific research to entrepreneurship**" Faculty of Agriculture, Cairo university, Cairo, Egypt 25-26 May 2016 (National Council for Women)
- I passed successfully "**Leadership Boot Camp**" at COAR Management Consulting, Greek Camp, Cairo, Egypt March 2016.
- "**Nanotechnology tools for scientists and Engineers workshop**", 2 May, 2015 EAID, Egypt.
- Member in "**The Association of Egyptian American scholar for the year 2016 to 2017.**
- **I passed successfully "Mini Master in Human Resources and Development"** December, 2016 EIF Training & Consulting.
- "**Future Prospects of the Utilization of Oil Crops**" Organized by Fats and Oils Department, National Research Centre in Collaboration with Malaysian Palm Oil Council (MPOC), December, 21, 2016.
- Workshop on "**Next Generation of Polymer Nanocomposites for Sustainable Development in Egypt**" 7-8 December, 2016, (EPRI) & (STDF)
- Workshop on "**Academic Writing-How to Presents Scientific Papers**" DAAD & EPRI 13 December 2016.
- Work shop in "**From Innovation to Commercialization**" BUE, Cairo, Egypt 1&2 February 2016 (National Council for Women)
- Workshop on "**Proposal writing post Docs**" DAAD & EPRI 26 February 2017.

Prizes

- Winner in a Research Infrastructure Support (**Equip ME Program**) sponsored by Ministry of Scientific Research and Technology to obtaining **high pressure continuous flow tubular reactor system with steel reactor (2012)**.

Patent

1. National Patent no. **1244/2013** with title” **Discs from Rice Straw Ash for Water Purification from Dye and Heavy Metals**”
2. National Patent no. **101616/2014** with title” **The Production of Mesoporous Activated Carbon (MAC) from WASTE of Sugar Cane Juice for Using in Water Purification**”
3. National Patent no. **96/2015** with title” **Preparation of Highly Stable Titania Nanofluid and its Photocatalytic Degradation of Methylene Blue**”
4. National Patent no. **1244/2015** with title ”**The Production of Fluorapatite Catalyst from Waste Animal Bones and Its Use as A Photocatalyst for Degradation of Chlorophenols in Polluted Water**”

Teaching

I can teach many courses in physical chemistry like catalysis, photo-catalysis, nano-catalysis for water treatment, alternative energy like hydrogen production, syngas production. These are two examples:

A. Treatment of waste water using an agriculture waste: a twofold goal

- Introduction to water treatment methods
- Definition of Advanced Oxidation Process (AOP)
- Definition of Photo-catalysis technique
- Mineralization of organic compounds as Dyes and phenol compounds in water
- Use of Rice Straw Ash (RSA) in photo-catalytic composite
- Conversion of RSA to valuable metal oxide and activated carbon (AC)
- Using of RSA and AC for removal metal from waste water: kinetic study of metal removal
- Photo-catalytic activity of RSA and AC
- Practical session in lab on
 1. preparation of activated carbon (AC) from RSA
 2. preparation of nano-SiO₂ from RSA
 3. preparation of nano-titanium dioxide (TiO₂)
 4. Green synthesis of ZnO
 5. photo-catalysis system and devices (photo-chamber, lamps and light meter).

B. Hydrogen as a future alternative fuel

- Introduction to alternative fuels
- Fuel cell
- Production of hydrogen

1.1. Production of hydrogen from natural gas:

- 1.1.1. Steam reforming (steam methane reforming – SMR).
- 1.1.2. Partial oxidation (POX).
- 1.1.3. Autothermal reforming (ATR).

1.2. Production from coal

1.3. production from bio-mass

2. Hydrogen from splitting of water

- 2.1. Water electrolysis
- 2.2. Photo-catalysis technique

3. Storage of Hydrogen

4. Catalysis

- 4.1. Ni-based catalysis
- 4.2. Noble metal based catalysis
- 4.3. Co-oxide catalysis group

Languages

- Fluent in using English language (written and spoken).
- Arabic (Native).

References

- Available upon request