

## Curriculum Vitae

### Personal Data

- **Name:** Maged Abdeltawab El-Kemary
- **Current position:** President of Kafrelsheikh University
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### Research Interest

- Photochemistry, Photophysics, photobiology and photomedicine of photoactive materials.
- Synthesis, photophysics and spectroscopic characterization of nanocavities caged drug.
- Interaction between drugs and proteins.
- Photoprocess at the surface of nanoparticles and their applications.
- Characterization of nanoparticles for drug delivery applications.
- Photocatalytic degradation of Organic pollutants by photo-nano-catalyst.

### Education

- **B.Sc** (Chemistry), Faculty of Science, Tanta University, Egypt, Egypt (1981)
- **M.Sc.**, Faculty of Science, Tanta University, Egypt (1987)
- **Ph.D**, Tanta University, Egypt-Mainz University, Germany (Prof. W. Liptay) according to Scientific Channel Program (1992).
- **Associate Professor**, Tanta University, Egypt (1998).
- **Professor**, Kafr ElSheikh University, Egypt (2004)

### Experience

- **Demonstrator** at Chemistry Department, Faculty of Education, Tanta University (Kafr El-Sheikh Branch), Egypt (1981 - 1987).
- **Assistant Lecturer of Physical Chemistry** at the Department of Chemistry, Faculty of Education, Tanta University (Kafr El-Sheikh Branch), Egypt (1987 - 1991)
- **Lecturer of Physical Chemistry** at the Department of Chemistry, Faculty of Education, Tanta University (Kafr El-Sheikh Branch), Egypt (1992 - 1998).
- **Associate Professor of Physical Chemistry** at the Department of Chemistry, Tanta University (KafrelSheikh Branch), Egypt (1998 – 2004)

- **Professor**, KafrelSheikh University, Egypt (2004 – now)

### Professional Appointments

- **Invitation to Saint Louis University**, USA for Joint Research collaboration in NanoChemistry (3 weeks, July 2010).
- **JSPS Invitation Fellowship Award**, Graduate School of Material Science, University of Hyogo, Hyogo, Japan (1<sup>st</sup> May 2009-31 June 2009).
- **Visiting Professor**, FemtoChemistry Lab., Department of Physical Chemistry, University of Castilla-La Mancha, Toledo, Spain (September 2005 –August 2006).
- **Visiting Researcher**, Humboldt University, Berlin, Germany, Professor W. Rettig (May 2003-August 2003).
- **JSPS Invitation Fellowship Award**, Institute of Physical and Chemical Research (RIKEN), Wako, Japan (1<sup>st</sup> November 2002-31 December 2002).
- **Visiting Researcher**, Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan (COE project), with Prof. Shigeo MURATA (January - June 2001).
- **Postdoctoral Researcher** with Prof. Osamu Ito, Tohoku University, Sendai, Japan (January - June 1998).
- **Training** on operation and service activity of Single Photon Counting machine, Edinburgh Instruments Ltd, Scotland, 1997.

### SCIENTIFIC PROJECTS

- 1) Excited-state Relaxation Properties of Donor-Acceptor Systems. May 28, 2002 to May, 2004. Egyptian-German bilateral cooperation. Humboldt University, Berlin, Institute für Chemie: Prof. W. Rettig
- 2) Effect of Cyclodextrins on the Photostability of drugs, from October 1, 2002 to September 1, 2005, supported by Tanta University with cooperation with Faculty of Pharmacy, Tanta University, group leader: Maged El-Kemary.
- 3) Photostability of drugs, 2 September – 30 August 2006- cooperation with Prof. Dr. A. Douhal, Castilla La Mancha University, Toledo, Spain.
- 4) Low- cost Nano-Wire Solar Cell and White Light Emitting Diode based on Zinc Oxide-Polymer hybrid Nano-structures, Funded by STDF, Egypt Foundation. January 2011 to December 2013.

## PARTICIPATION IN CONFERENCES

- 1) 3<sup>rd</sup> International Conference on Solar Energy Storage & Applied Photochemistry, Cairo, Egypt, 8-14. 1. 1995
- 2) 5<sup>th</sup> Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Cairo, Egypt, 9-12. 12. 1995.
- 3) First International Scientific Conference (Science & Development), Cairo, 20-23. 3. 1995.
- 4) XVI IUPAC Symposium on Photochemistry, Helsinki, Finland, 21-26. 1996.
- 5) 2<sup>nd</sup> International Conference on Lasers & Applications "Advances in Science, Medicine & Technology", Cairo, 16-19. 9. 1996
- 6) 4<sup>rd</sup> International Conference on Solar Energy Storage & Applied Photochemistry, Cairo, Egypt, 1-6. 1. 1997
- 7) 6<sup>th</sup> Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Cairo, Egypt, 13-16. 12. 1997
- 8) Second International Conference on Electrochemistry and Its Applications, 2-4. 2. 1999, Luxor, Egypt.
- 9) XVIII IUPAC Symposium on Photochemistry, "Photochemistry into the new century", Dresden, Germany, 22-27. 2000.
- 10) The 4<sup>th</sup> NIMC International Symposium on Photoreaction Control and Photofunctional Materials, 14-16. 3. 2001. AIST, Tsukuba, Japan,
- 11) Workshop "Fluorescence and Reflectance Spectroscopy and Applications in Science, Agriculture, Pharmacy and Medicine," 13-18. 10. 2001, Ain Shams University, Cairo, Egypt.
- 12) Biannual Conference on Chemistry "Chem. 02" Cairo, 4-7 March 2002,
- 13) 7<sup>th</sup> International Conference on Solar Energy and Applied Photochemistry (Solar '03), Luxor, Egypt, 23-28 February 2003.
- 14) Tag der Chemie, Berlin, Germany, 24.06.2003
- 15) The 2<sup>nd</sup> International Congress of Pharmaceuticals & Drug Industries Division, 7-9 March 2005, Dokki, Cairo, Egypt.
- 16) XXI IUPAC Symposium on Photochemistry 02/04/2006 Kyoto, Japan
- 17) 10th Ibn Sina Conference, held in Luxor, Egypt 17-20 February 2007.
- 18) 9<sup>th</sup> International Conference for Chemistry, in Sharm ElSheikh, Egypt, 16-19 April 2007.
- 19) 6<sup>th</sup> International Conference for Electronic Education, Cairo, Egypt, 2-4 September 2007.
- 20) 2th 6<sup>th</sup> International Conference on "New trends in Chemistry and their Applications", Hurghada, Egypt, February 13-15, 2008.

- 21) International Conference on: “Nano/Molecular Photochemistry and Nanomaterials for Green Energy Development” Solar’10, 14 - 17 February 2010, Cairo, Egypt.
- 21) USA Workshop in Nanomaterials and their applications in (Energy-Environment-Oil research), 6 October city, March 27- April 5, 2010.
- 22) International Workshop on Advanced Materials (IWAM), Ras Al Khaimah, United Arab Emirates from the 20- 22 February, 2011.

### Committee Membership

- Egyptian Society of Advanced Materials and Nanotechnology
- Arab Materials Science and Nanotechnology Network
- American Nano Society
- Membership in New York Academy of Science.
- Membership in the American Association for the Advancement of Science

### Awards

- University Encouragement Award in Basic Science, 2008.
- JSPS Invitation Fellowship Award, Graduate School of Material Science, University of Hyogo, Hyogo, Japan (1<sup>st</sup> May 2009-31 June 2009).
- JSPS Invitation Fellowship Award, Institute of Physical and Chemical Research (RIKEN), Wako, Japan (1<sup>st</sup> November 2002-31 December 2002)

### Invited Talk

- 1- National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan. Feb. 15, 2001. (Invitation from Professor D. M. Tachya)
- 2- Institute of Physical and Chemical Research (RIKEN), Wako, Japan, Nov. 2002.(Invitation from Professor Dr. T. Tahara).
- 3- National Institute of Material Science, Okazaki, Japan. Nov. 25, 2002. (Invitation from Professor Dr. Okomoto).
- 4-Tokyo University, Tokyo, Japan, December 18, 2002. (Invitation from Professor Dr. Hamaguchi)
- 5- Humboldt University, Berlin, Germany July 2, 2003. (Invitation from Professor Dr. W. Rettig).
- 6- University of Hyogo, Nanotechnology Lab., Hyogo, Japan, 16-5-2009, 26-6-2009. (Invitation from Professor Dr. Hiroshi Yao).
- 7-Kyoto University, Faculty of Science, Graduate School of Science, Kyoto Japan, 18-5-2009 (Invitation from Prof. Dr. M. Terazima).
- 8- Osaka University, Faculty of Science, Osaka, Japan, 6-6-2009 (Invitation from Prof. Dr. T. Majima).
- 9- Saint Louis University, USA, 13-10-2010 (Invitation from Prof. Dr. Steven Bukner)

### **Editorial Board Member**

International Journal of Materials and Chemistry

### **Reviewer**

- 1) Journal of Nanoscience and Nanotechnology
- 2) J. Environmental Management
- 3) Environmental Technology
- 4) TALANTA
- 5) Chemical Physics
- 6) Journal of Photochemistry Photobiology A
- 7) Journal of Physical Chemistry A
- 8) Journal of Inclusion Phenomena and Macrocyclic Chemistry
- 9) Spectrochimica Acta A
- 10) Analytica Chimica Acta
- 11) Journal of Applied Organometallic
- 12) Chemical Papers
- 13) J. Photoenergy
- 14) Photochemical and Phobiology
- 15) Journal of Hazardous Materials
- 16) Luminescence: The Journal of Biological and Chemical Luminescence
- 17) Physica E: Low-Dimensional Systems and Nanostructures
- 18) Materials Science in Semiconductor Processing

### **List of Publications**

- 1) Sustained- Release of Flutamide from radiation-crosslinked poly(4-Acryloyl Morpholine - Acrylic acid) hydrogels, M. F. Abou Taleb, S. Elsigeny, M. El-Kemary, Macromolecular Research, 20 (2012) 1-8.
- 2) CuO Nanoparticles: Synthesis, Characterization, Optical Properties and Interaction with Amino Acids, A. El-Trass, H. ElShamy, I. El-Mehasseb, M. El-Kemary, Applied Surface Science 258 (2012) 2997-3001.
- 3) Photocatalytic degradation of Safranin-O dye under different light sources, Y. Abdel-Moneam, M. Madkour, M. El-Kemary, J. Photoenergy, submitted for publication.
- 4) Inclusion of Paracetamol into  $\beta$ -cyclodextrin nanocavities in solution and in the solid state, M. El-Kemary, S. Sobhy, Samy El-Daly, A. Abdel-Shafi, Spectrochim. Acta A79 (2011) 1904-1908.
- 5) Enhanced photocatalytic degradation of Safranin-O by heterogeneous nanoparticles for environmental applications, Maged El-Kemary, Yasser Abdel-Moneam, Metwally Madkour, Ibrahim El-Mehasseb, J. Lumin. 131 (2011) 570-576.

- 6) Spectrophotometric determination of trace Mn(II), Fe(III), Co(II), Ni(II) and Cu(II) in rice grains based on 2-(2,4-dihydroxyphenyl)-thiazole, A. Kheasn, *Global J. Analytical Chemistry*, 2 (4) (2011) 187-197.
- 7) Synthesis, Characterization and Optical Properties of Organic Nanoparticles of Piroxicam Anti-Inflammatory Drug, Maged El-Kemary and Hiroshi Yao, *J. Photochem. Photobiol. A* 213 (2010) 170-175.
- 8) Photocatalytic degradation of ciprofloxacin drug in water using ZnO nanoparticles, Maged El-Kemary, Hany El-Shamy, Ibrahim El-Mehasseb, *J. Luminec.* 130 (2010) 2327–2331.
- 9) Rapid and simple spectrophotometric determination of Mn(II), Fe(III), Co(II), Ni(II) and Cu(II) ions in natural samples using 2-(2-hydroxynaphth-1-ylazo)-pyridine, A. Khedr, R. Issa, M. El-Kemary, R. Hasn, *Egyptian J. Chemistry*, 53(6) (2010) 885-902.
- 10) The role of capping agent on the interaction of cadmium sulphide nanoparticles with Flufenamic acid drug, Maged El-Kemary, Hany El-Shamy M.M. Mosaad, *Mat. Chem. Physics*, 118 (2009) 81–85.
- 11) Fluorescence modulation and photodegradation characteristics of safranin O dye in the presence of ZnS nanoparticles, Maged El-Kemary, Hany El-Shamy, *J. Photochem. Photobiol. A: Chem.* 205 (2009) 151–155
- 12) Two-dimensional free energy surfaces for electron transfer reactions in solution, Shigeo Murata, **Maged El-Kemary** and M. Tachiya, *J. Photoenergy*, 2008, doi:10.1155/2008/150682
- 13) Excited state Dynamics of Piroxicam within Human serum albumin, **Maged El-Kemary**, M. Gil and A. Douhal, *J. Med. Chem.* 50 (2007) 2896-2902.
- 14) Assessment of solvent effect on the relaxation dynamics of milrinone, **Maged El-Kemary**, J. Organero and A. Douhal, *J. Photochem. Photobiol. A* 187 (2007) 339-347.
- 15) Effect of Cyclodextrin Nanocavity Confinement on the Photorelaxation of Cardiotonic Milrinone Drug, **Maged El-Kemary**, Juan Organero, Lucia Santos and Abderrazzak Douhal  
*J. Phys. Chem. B* 110 (2006) 14128-14134.
- 16) Fast Relaxation Dynamics of Milrinone Cardiotonic Drug in Water Solutions, **Maged El-Kemary**, Juan Angel Organero, and Abderrazzak Douhal, *J. Med. Chem.* 49 (2006) 3086-3091
- 17) Photochemistry and Photophysics of Cyclodextrin Caged Drugs, **M. El-Kemary** and A. Douhal In “Cyclodextrin Materials Photochemistry, Photophysics and Photobiology” Douhal, A. (Ed.) Chapter 4, Elsevier, 2006.
- 18) Global and distribution analysis of fluorescence decays and spectrofluorimetric determination of stoichiometry and association constant of the inclusion complex of 2-amino-5,6-dimethyl-benzimidazole with  $\beta$ -cyclodextrin, **Maged A. El-Kemary** and Ibrahim M. El-Mehasseb, *Talanta* 62 (2004) 317–322
- 19) Multiple Emission in Coumarins with Heterocyclic Substituents, Maged El-Kemary and Wolfgang Rettig, *Phys. Chem. Chem. Phys.* 5 (2003) 5221-5228.
- 20) Relaxation Pathways of Photoexcited Non-Steroidal Anti-inflammatory Drugs: Flufenamic and Mefenamic acids, Maged A. El-Kemary, *Chem. Phys.* 295 (2003)1-10.

- 21) New Approach for Evaluation Optical Absorption Measurements of Charge Transfer Complexes between dimethoxynaphthalenes and tetracyanoethylene: Singular Value Decomposition method, **Maged A. El-Kemary**, Safaa El-Din H. Etaiw, Hosney Y. El-Baradie, *Spectrochimica Acta A* 59 (2003) 1621-1630.
- 22) Spectral study and global analysis of fluorescence decays of the inclusion complexes of 2-amino-4,6-dimethyl pyrimidine with  $\alpha$ - and  $\gamma$ -cyclodextrins, **Maged A. El-Kemary**, Hani S. El-Gezawy, *J. Photochem. Photobiol. A* 155 (2003) 151-156.
- 23) Fluorescence decay of singlet excited-state of safranin T and its interaction with ground-state of pyridinethiones in micelles and homogenous media, **M. A. El-Kemary**, Rehab A. Khedr, Saffa El-Din H. Etaiw, *Spectrochimica Acta A* 58 (2002) 3011-3019.
- 24) Spectral and Photophysical Studies of Inclusion Complexes of 2-Amino-4,6-dimethyl pyrimidine with  $\beta$ -cyclodextrin, **M. A. El-Kemary**, H. S. El-Gezawy, H.Y. El-Baradie, R. M. Issa, *Spectrochimica Acta A* 58 (2002) 495-502.
- 25) Excited-State Double Proton-Transfer of Pyrimidines Mediated by Hydrogen-Bonded Complexes, **M.A. El-Kemary**, H.S. El-Gezawy, H.Y. El-Baradie, R.M. Issa, *Chemical Physics* 256 (2001) 233-242.
- 26) Photoinduced Electron Transfer between Fullerenes ( $C_{60}/C_{70}$ ) and Disubstituted Naphthalenes using Laser Flash Photolysis, Mohamed El-Khouly, Mamoru Fujitsuka, Osamu Ito, **Maged El-Kemary** *J. Photochem. Photobiol. A: Chem.* 141 (2001) 1-7.
- 27) Photophysical Properties of 2,5-Diphenyl-1,6,6a-Trithiapentalene Revealed by Time-Resolved Spectroscopy, **Maged A. El-Kemary**, *Spectrochimica Acta A* 57 (2001) 179-185.
- 28) How does the electron transfer rate change with distance in nonpolar solvent?  
**Maged A. El-Kemary**, Shigeo Murata, M. Tachiya,  
The 4<sup>th</sup> NIMC International Symposium on Photoreaction Control and Photofunctional Materials, 14-16. 3. 2001. AIST, Tsukuba, Japan.
- 29) Photophysical Characteristics of two 4,6-Disubstituted-3-Cyanopyridin-2(1H)-thiones in various solvent, **M. El-Kemary**, M. El-Khouly, O. Ito, *J. Photochem. Photobiol. A: Chem.* 137 (2000) 105-113.
- 30) Photoinduced Intramolecular Charge-Transfer of 3-Cyano-4-Furyl-6-Phenyl-N-(9-Anthralylidene)-Pyridine, **Maged A. El-Kemary**, *J. Photochem. Photobiol. A: Chem.* 137 (2000) 9-14.
- 31) Effects of Tetramethylpyridine Addition on Forward and Backward Electron Transfer between Triplet States of  $C_{60}/C_{70}$  and 2-Naphthols, **M. El-Kemary**, M. El-Khouly, M. Fujitsuka, O. Ito, *J. Phys. Chem.*, A 104 (2000) 1196-1200.
- 32) Photoinduced Electron Transfer and Adduct Formation between  $C_{60}/C_{70}$  and Optically Active 1,1'-Binaphthyl-2,2'-diamine, **Maged El-Kemary**, Mamoru Fujitsuka, Osamu Ito, *J. Phys. Chem.*, A 103 (1999) 1329-1334.
- 33) Evaluation of Optical Absorption measurements of Charge transfer Complexes of some Dimethoxynaphthalenes with Tetracyanoethylene: Integral Absorption Method.  
**M. El-Kemary**, S. Etaiw, H. El-Baradie, *Can. J. Analyt. Sci. Appl. Spectrosc.* 44(1999) 108-113.

- 34) Excited State Dipole moment and Energy Transfer of 3-(2-Benzothiazolyl)-7-diethylaminocoumarin Laser Dye, **Maged A. El-Kemary**, *Can. J. Analyt. Sci. Appl. Spectrosc.* 43(1998) 95- 100.
- 35) Spectroscopic Properties of Charge Transfer Complexes of some Benthothiazoles with Chloranil, **Maged A. El-Kemary**, *Can. J. Analyt. Sci. Appl. Spectrosc.* 43(1998) 1-4.
- 36) Excited and Ground State Complexes of Tetraphenylporphyrin (TPP) with some Organic Electron Acceptors, **Maged A. El-Kemary**, S.A. Azim, M.E. El-Khouly, E.M. Ebeid, *J. Chem. Soc., Faraday Trans.* 93(1997) 63-68.
- 37) Fluorescence Quenching and Complexation Behaviour of Tetraphenylporphyrin with some Divalent Metal Ions, S. Azim, **M. El-Kemary**, S. El-Daly, H. El-Daly, M. El-Khouly, E.M. Ebeid, *J. Chem. Soc., Faraday Trans.* 92(1996) 747- 751.
- 38) Interaction of the Excited Singlet State of 1,4- and 1,8-Dimethoxynaphthale with some Organic compounds: A Fluorescence Quenching Study, **Maged A. El-Kemary**, Samy A. El-Daly, *Monatshefte für Chem.* 127(1996) 593-600.
- 39) A Spectrophotometric Study of Charge Transfer Complexes of 1,4- and 1,8-Dimethoxynaphthalene, **Maged A. El-Kemary**, *Can. J. Appl. Spectrosc.* 41(1996) 81-86.
- 40) Spectroscopic and Electrical Properties of Charge Transfer Complexes of 1,5-Dimethoxynaphthalene, **Maged A. El-Kemary**, *Can. J. Appl. Spectrosc.* 41(1996) 109-113.
- 41) Interaction of the Ground and Excited Singlet states of 1,5- and 2,3-Dimethoxynaphthalene with  $\pi$ -Acceptors, M.A. El-Kemary, *J. Photochem. Photobiol. A: Chem.* 87 (1995) 203-207.
- 42) Effect of pH and Solvent on the Absorption and Emission Characteristics of Arylidene derivatives of Picolinic Acid Hydrazide, **M.A. El-Kemary**, I.M. El-Mehasseb, S.H. Etaiw, *Can. J. Appl. Spectrosc.* 40 (1995) 99-104.
- 43) Optical Studies of Charge Transfer Complexes of 2,6-Dimethoxynaphthalene with some  $\pi$ -Acceptors, **M.A. El-Kemary**, A.M. Ibrahim, S.H. Etaiw, *Can. J. Appl. Spectrosc.* 40 (1995) 106-111.
- 44) Spectroscopic Studies of Arylidene Derivatives of some Aminobenzoic Acid Hydrazides, M. Gaber, K. El-Baradie, **M.A. El-Kemary**, *Egypt J. Chem.* 35 (1992) 1-17.
- 45) Spectroscopic Investigation of some Anthranillic Hydrazide Derivatives and their complexes with  $\text{Fe}^{3+}$ ,  $\text{Co}^{3+}$ ,  $\text{Ni}^{2+}$  and  $\text{Cu}^{2+}$  Ions, M. Gaber, M.M. El-Kersh, I.M. El-Mehasseb, **M.A. El-Kemary**, *Egypt J. Chem.* 1 (1992) 19-33.
- 46) Kinetic Studies on the Hydrolysis of Some Arylidene Derivatives of Aminobenzoic Acid, H.Y. El-Baradie, A.M. Habib, R.M. Issa, **M.A. El-Kemary**, *Egypt J. Chem.* 32 (1989) 511-519.