Adhiri Rahma, Professor of Materials Physics
University Hassan II Mohammedia-Casablanca Faculty of Sciences Ben Msik
E-mail: rahma_adhiri@yahoo.fr

Area of Research/Teaching

Research Interests: Research topics on which we work, relate to the study of thin films, heterostructures and nanostructures materials with high potential technology in the fields of electronics, optoelectronics, and nanotechnology. They cover research, both theoretical and experimental.

Teaching Interests: Development of methods and techniques of distance education, digital content production, free software Linux professional, e-learning

Biography

Adhiri Rahma is a professor in department of Physics and director of the laboratory LEAMCM, in Faculty of Sciences Ben M'Sik, University Hassan II Mohammedia-Casablanca. Her scientific activities fall the field of Engineering Sciences in general and in particular in the physics of materials. It covers the following areas: technology diffusion, implementation and processing in microelectronics, materials development by various deposition methods, structural and morphological Analysis, Development and characterization of blue lasers based on semiconductors, electrical and optical characterization, components photovoltaic manufacturing nano-sensors for biological applications, Preparation and characterization of CMOS based on GaAs and Si, piezoelectric materials: sensing applications. She is a board member of the faculty, coordinator of the education committee of the Faculty council, coordinator of the joint committee within the University, coordinator chain Material Sciences Physics, coordinator of the committee on budget monitoring in department of Physics, member of the association "Science for All", member of the committee of organization of the Science Week, member of the committee to welcome new students, founding member of the Moroccan Society of Optics and Spectroscopy, founding member of the Moroccan society statistical physics and condensed matter, member of the competence pole MACOMS, mounting project "Implementation of the CRU", pilot project in e-Learning under the Virtual Campus Moroccan funded by the Ministry of National Education, LPI certified professor, responsible for two research projects between France and Morocco.

Leïla ADNANE
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Laboratoire d'électrochimie, Corrosion, Métallurgie et Chimie minérale
Faculty of chemistry, USTHB
BP 32 El Alia, Algiers, Algeria
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Leila Adnane, is a native of a city located in the East of Algeria. After a successful schooling history, she integrated the University Center of Blida in 1983 for a one-year common trunk in sciences, after which she joined the University of Sciences and Technology Houari Boumediene (USTHB). In June 1987 she obtained her first university degree, a Graduate Diploma (D.E.S) in chemistry. In September 1987 she joined the faculty of chemistry USTHB, and since then has occupied a position as teacher and researcher.

• As a teacher, she ensures first of all directed works (TD-Tutorials) on the "atom and chemical bonding", "introduction to thermodynamics" and practical works (TP-laboratory work) on "the analysis of solutions."

In 1992, she worked in her specialization as she was assigned to teach the tutorial and conduct the practical work of the Phase Diagrams course offered in specialization.

In 1993 she developed, for the first time at the Faculty of Chemistry, a Practical Work on Phase Diagrams. Later in 1998, she was in charge of the lecture, tutorial, and practical work of the Phase Diagrams course.

Following the university reform, she took part in the elaboration of the programs of Master's degree offered at the Faculty of Chemistry.

She re-designed the Phase Diagrams course and introduced two new courses Thermal Analysis and Electron Microscopy. Over the past three years she was in charge of these three courses.

Leila Adnane is also involved in the academic life of the Faculty of Chemistry, by her active participation in the organization of competitions and other activities (tutoring, mentoring and supervising students).

• As a researcher, she joined temporarily the laboratory of structural metallurgy in 1987. She successfully passed the magister (MA) entry exam and then officially enrolled in an MA on the miscibility between carbides of transition metals. She worked under the supervision of Professor Rafika Kesri, and successfully defended her master's thesis in October 1991 with distinction.

In October 1999 she successfully defended her PhD dissertation (Doctorat d'Etat) that she prepared at USTHB with the collaboration of the "laboratoire de thermodynamique et physico-chimie métallurgique (LTPCM) of the Ecole Nationale Supérieure d'Electrochimie et d'Electrométallurgie de Grenoble (ENSEEG).

• Presently, she is Associate Professor of Chemistry, she also occupies a research director position at the same faculty. She directs five students and has to her credit three presented theses.

• Parallel, she takes part in various activities of the faculty. She is involved in the organization of scientific events, as a reviewer of submitted abstracts, she is a member of selection and recruitment commissions. Besides, she is an active member of the board of health and safety of the faculty of Chemistry (USTHB).

CURRICULUM VITAE

BAITOUL Mimouna
Full Professor of the university
Laboratory of solide state physics
University Sidi Mohammed Ben Abdellah, Faculty of Sciences Dhar el Mahraz, B.P. 1796, Fes 30 000 - Morocco
E-Mail **baitoul@yahoo.fr** , Tel: 212-55-73.33.49- Fax: 212-55-73.33.49
Responsible of research group:"Polymer and Nanomaterial "
Bureau: Moroccan society of statistic physics
Member: Pôle de compétence : condensed matter and modelisation (MACOMS)
Vice president of Moroccan Association of Nanotechnology (AMANAT)
Member of African Network of Nanotechnology (NANOAFNET)
Member of African laser center (ALC)
Member of Moroccan association of women in science
Member: C.A of Moroccan society of advanced materials and their applications (SMPM2A)
Member: Moroccan society of Renewable Energies development "SMADER"
Responsible: Master: Physics of material and Nanostructures
Editorial board:
- Moroccan journal of condensed matter
- African Journal of Physics

RESEARCH INTEREST

Experimental and theoretical studies of optical, and vibrational properties of semiconducting conjugated polymers, carbon nanotubes , grapheme. Studies of carbon nanotubes dispersion, effect of surfactant, acid treatment on the CNTs surface by Raman and Pl spectroscopy.

Photophysics of conjugated Polymers, Porphyrins, ZNO, nanocomposites based on grapheme and carbon nanotubes, interactions at the interface of the nanocomposites for applications in electronic devices, phovoltaic cells, organic ligth emmitting diodes (OLED's)., Gaz sensing,

Cochair of US(NSF), Florida university/Morocco (USMBA and Alakhawayn) universities: workshop on nanomaterials and renewable energies, Ifrane Novembre 2011

Member of Organizing committee of conferences on renewable energy (Fès 2006), Fès(2010), International conference on nanomaterials and renewable energies (Safi 2010), (Marrakech 2011)

Member of Organizing and scientific committee of other international conferences on nanomaterials and nanotechnology (IIrane 2004 and Fès 2011), condensed matter and modelisation (Fes 2009) BeniMellal (2010), Errachidia (2010))

SCIENTIFIC COOPERATION

❖ Morocco-France (Nantes) research project: Convention CNRST/CNRS (2000-2003)
✦Title of the project" Experimental and theoretical studies of optical and magnetic properties of new materials for electronic and optoelectronic"
❖ Morocco- France (Angers) research project: Convention CNRST/CNRS (2006-20010)
✦Title of the project: Matériaux nanostructurés pour l'électronique
❖ Morocco – Portugal - research project: Convention CNRST/ICCTI (2001-2003)/2006-2007
✦Title of the project «Organic/ Inorganic films for Solar Cells and Photodetector applications

❖Morocco-South Africa: LPS- FSDM-Fès M. Baitoul/ITHEMBA labs-Captown (Maaza Malik) (Nanoafnet and ALC): research team: Graphene- Nanofibers_nanotubes
❖Moroccco-France (le Mans) Codiplomation international Master research (OMJ label: Physics of material and nanostructures

Recent Publications 2008-2012

● NLO properties of polythiophenes galvanostatically electrodeposited on ITO glasses
V. Figa, J. Luc, M. Baitoul, B. Sahraoui
Journal of Optoelectronics and Advanced Materials Vol. 10, No. 8, (**2008**) 2123

● Characterization and investigation of NLO properties of some selected electrodeposited polythiophenes
V. Fig`, J. Luc, B. Kulyk, M. Baitoul, B. Sahraoui
Journal of the European optical society-rapid publication, 4, 09016 **(2009**) 1-6

●Studies of multiwall carbon nanotubes (MWCNTs) dispersion in Poly vinyl alcohol (PVA)
Mediterranean Journal of Electronics and Communications, Vol. 6, No. 1, **2010**
N. Diouri, M. Baitoul

● Vibrational and optical properties of single Wall carbon nanotubes/semiconducting polymers composites
Third IUPAP International conference on women in physics ICWIP (Seoul-Korea **2008**)
AIP conf. Proceeding 19 Avril (**2009**) vol 1119, issue 1, p. 103
M.Baitoul, M. Zekiti

● Women scientific researchers in Morocco Third IUPAP International conference on women in physics ICWIP (Seoul-Korea **2008**)
AIP conf. Proceeding 19 Avril (**2009**) vol 1119, issue 1, p. 141-142
Amina Bettachy, Fatiha Maaroufi, Asmaa Nouira, Mimouna Baitoul

● Proceeding of Institute of Electrical and Electronics Engineers, IEEE,
Effect of multiwall carbon nanotubes on the morphology and optical properties of electrospun poly(vinyl alcohol) nanofibers, publiée en 19 Janvier **2010** (http://ieeexplore.ieee.org/xpl/freeabs_all.jsp,arnumber 5385536)
N. Diouri, M. Baïtoul1 and M. Maaza

●Elaboration and characterization of Poly (vinyl alcohol) - Carbon nanotubes nanofibers Global Journal of physics (**2011**) N. Diouri, M. Baïtoul1 and M. Maaza

● Graphene/ZnO nanorods for H2 sensing**.** Global Journal of Physics (**2011**) M. Khenfouch, M. Baitoul, H.Aarab and M.Maaza

●White photoluminescence from a grown ZnO nanorods/graphene hybrid nanostructure
Optical material, 34, 8, **2012**, Pages 1320–1326
M. Khenfouch, M. Baitoul and M.Maaza

●Morphological, Vibrational and Thermal Properties of Confined Graphene Nanosheets in an Individual Polymeric Nanochannel by Electrospinning,
Graphene, 2012, 1, 15-20 doi:10.4236/graphene.2012.12002
M. Khenfouch, M. Baioul, H. Aarab, M. Maaza

Recent Oral Communications from 2008-2012

●Vibrational and thermal properties of poly (vinyl alcohol)/MultiWall carbon nanotubes nanocomposite, Mediterranean Winter, **2008**. ICTON-MW **2008**. 2nd ICTON N. Diouri. **M. Baitoul**

● Vibrational and optical properties of single Wall carbon nanotubes/semiconducting polymers composites **M.Baitoul**, M. Zekiti. **Third IUPAP** International conference on women in physics ICWIP (**Seoul-Korea 2008**)
AIP conf. Proceeding 19 Avril (**2009**) vol 1119, issue 1, p. 103

● Women scientific researchers in Morocco **Third IUPAP** International conference on women in physics ICWIP (**Seoul-Korea 2008**), Amina Bettachy, Fatiha Maaroufi, Asmaa Nouira, Mimouna **Baitoul**, **AIP conf. Proceeding** 19 Avril (**2009**) vol 1119, issue 1, p. 141-142

●Raman Investigation of carbon nanotubes dispersion in PVA/carbon nanotubes electrospun nanofibers**.**
Naoual Diouri[a], Mimouna Baitoul[a] and Malik Maaza, **4th IUPAP** International Conference on Women in Physics 5-8 April **2011** South Africa

●Women scientific researchers in Morocco **4th IUPAP** International conference on women in physics ICWIP 5-8 April **2011** South Africa, Amina Bettachy, Fatiha Maaroufi, Mimouna **Baitoul** , Belmostapha, N. Diouri,

●Elaboration and characterization of Poly (vinyl alcohol) - Carbon nanotubes nanofibers'', International Conference on Nano-Materials and Renewable Energies, 5-8 juillet **2010**, Safi Maroc.
N. Diouri, **M. Baïtoul** *nd M. Maaza

●Carbon nanotubes and graphene based nanocomposites: synthesis, properties and applications, Conférence internationale. The first postgraduate symposium, ITembaLabs, Capetown 14 April **2010**.
M. Khenfouch, M. Baitoul*, H.Aarab and M.Maaza

●Graphene/ZnO nanorods for H2 sensing", International conference on nanomaterials and renewables energies, Safi juillet **2010.**
M. Khenfouch, M. Baitoul*, H.Aarab and M.Maaza

●Dispersion of SWCNT, Morphological, Optical and Vibrational properties of Single Wall carbon nanotubes / Polyvinyl alcohol) SWCNT/PVA nanocomposite, International conference on condensed matter and modelisation (CIMCP) Benibellal **2010**
N. Diouri, M. Baitoul

●Comparative study of multiwall carbon nanotubes purification techniques

RISO **2010**, Errachidia, Maroc
B. Boussouari, M. Baitoul, * N. El Bounia

●Comparative study on the interaction of SWCNTs and MWCNTs with polymer
RISO **2010**, Errachidia, Maroc
N. Diouri, M. Baitoul

●Raman investigation of carbon nanotubes dispersion in polyvinylalcohol-carbon nanotubes electrospun nanofibers. International conference on women in physics (ICWIP) 2011, Cape town South Africa (**5-8 April 2011**)
Naoual Diouri, Mimouna Baitoul* and Malik Maaza

●Morphology, thermal properties and internal structure of Electrospun Poly(vinyl alcohol)/Carbon nanotubes composites nanofiber,
International Conference on Advanced Materials for Photonics, Sensing and Energy Conversion Applications
December 5-7, **2012**, El Jadida Morocco
N. Diouri, M. Baitoul

●Raman study of graphene/nanostructured oxides interaction.
International Conference on Advanced Materials for Photonics, Sensing and Energy Conversion Applications
December 5-7, **2012**, El Jadida Morocco
M. Khenfouch, D. Elazhari, M. Baïtoul, M. Maaza

Zeyneb Bedrane, Ph.D

Tlemcen University, Algeria

Education

Ph.D in Plasma Physics
Tlemcen University, Algeria, 2009

Summary of Experience

Dr. Zeyneb Bedrane was born in Tlemcen in November 28th, 1979. She has over 13 years experience in Atomic Physics with application to hot plasmas and is the author of several scientific publications.

Dr. Bedrane obtained her master in plasma physics in 2002 and occupied a teacher-researcher assistant position in the physics department in Tlemcen University. In 2009 she won the title of The Youngest Doctor of the University of Tlemcen and became assistant professor in the same University. In December 2012 she obtained the authority to conduct scientific research.

She has extensive background in atomic processes in hot plasmas, including polarization of X-rays lines of highly charged ions. Her research interest is electron-ion collision theory and calculation of data needed to solve the Collisional-Radiative problem and the generation of rate coefficients from cross sections. She currently has several master students and is one of the responsible persons for constructing the Theoretical Physics Laboratory in Tlemcen University.

Actually, Dr. Bedrane has a project to collaborate with Optical Science Center for Applied Research at Delaware State University, Dover DE, USA for a temperature and density diagnostic of LIBS plasmas in the context of Collisional-Radiative model that include all the radiative and collisional processes such as, Radiative and collisional excitation, radiative recombination, collisional ionization, three body recombination, auto-ionization and dielectric recombination.

Stacey F. Bent
Professor of Chemical Engineering
Stanford University
Stanford, CA 94305 USA
E-mail: sbent@stanford.edu

Area of Research/Teaching

The research in the Bent laboratory is focused on understanding and controlling surface and interfacial chemistry and applying this knowledge to a range of problems in sustainable energy and nanoelectronics. The role of interfaces becomes increasingly important as system dimensions are scaled downward, with lengths moving into the nanometer range and the surface to volume ratio becoming very large. The function of many next-generation electronic and nanoscale devices will therefore depend critically on the ability to control and modify the properties of their interfaces.

Sustainable energy technology, including development of photovoltaic materials and novel catalysts for fuel cells and solar fuel production, is also a focus of the research in the group. Atomic layer deposition (ALD) plays a key role in many of these projects. In the Bent lab, ALD is being investigated to develop catalysts for fuel cells and clean fuel production. In addition, ALD is being used in interface engineering to achieve improved efficiency in solar cells. Nanostructured photovoltaic materials are also being explored which seek to increase absorption and decrease losses, and thin film photovoltaic materials are being developed that are comprised of elements that are non-toxic and abundant in the earth's crust. Much of the research aims to develop a molecular-level understanding in these systems.

Stacey Bent teaches courses in chemical engineering, which currently include kinetics and reactor design, structure and reactivity of solid surfaces, and a course on sustainable energy.

Biography

Stacey Bent is a professor of chemical engineering at Stanford University. She received a B.S. in chemical engineering from U.C. Berkeley and a Ph.D. in chemistry from Stanford University. She was a postdoctoral fellow at AT&T Bell Laboratories and assistant professor of chemistry at New York University before moving to Stanford University in 1998. Bent is co-Director of the DOE Energy Frontier Research Center on Nanostructuring for Efficient Energy Conversion and Director of the TomKat Center for Sustainable Energy. She is a senior fellow in the Precourt Institute of Energy. Prof. Bent is an editor of *Surface Science Reports* and on the editorial board of *Annual Review of Chemical and Biomolecular Engineering*. She recently served as a member of the American Chemical Society's Presidential Commission on Graduate Education in the Chemical Sciences.

Nora Berrah

Western Michigan University, Department of Physics, Kalamazoo, MI 49008, Phone: 269-387-4955 ; email: Nora.Berrah@wmich.edu.

PROFESSIONAL POSITIONS:

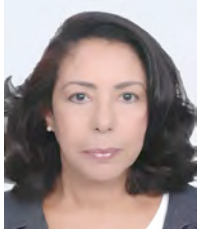
Visiting Professor, University Paris VI, Paris, France, and Chair d'Excellence, SOLEIL (French National Synchrotron Laboratory), St. Aubin, France, 2011-2012. Visiting Scientist, Ultrafast Center, Stanford Linear Accelerator Center (SLAC), Stanford, CA, 2006.
University Distinguished Faculty Scholar, 2000.
Visiting Scientist, Lawrence Berkeley National Laboratory, ALS, CA, 98-99.
Professor, Physics Department, Western Michigan University, August 1999.
Associate Professor, Physics Department, Western Michigan University, August 1994.
Visiting Scientist, FHI, Max Planck Gesellschaft, Berlin Germany, 92-93. Visiting Scientist (Chercheur Associe) at the Laboratoire pour l'Utilisation du Rayonement Electronique, LURE. Host Dr. F. Wuilleumier, June-July 1992, May 1993, of the Université d'Orsay, Paris, France. Assistant Professor, Physics Department, Western Michigan University, August 1991. Assistant Scientist, Physics Division, Argonne National Laboratory, October 1989-1991. Postdoctoral appointee, Physics Division, Argonne National Laboratory, May 1987-October 1989.

AWARDS:

1. Dean's award for Global Research Engagement, 2013
2. Dean's Faculty Research Appreciation Award, 2007
3. David. S. Shirley Award for "Outstanding Scientific Achievements at the Advanced Light Source", Lawrence Berkeley National Laboratory, 2002.
4. WMU Distinguished Faculty Scholar Award, 2000.
5. Fellow, American Physical Society, 1999.
6. W. M. U. President Award for excellence in Research (1996).
7. W. M. U. Dean's Award for excellence in Research (1995, 1997).
8. Humboldt Fellowship from the Alexander von Humboldt Foundation for 1 year (1992 - 1993).
9. Fellowship from the Physics Department of the University of Virginia for the academic year 1985-1986.
10. Scholarship from the Algerian Higher Education Ministry, 1979-1986.

MAJOR PROFESSIONAL ACTIVITIES:

1. Member, APS Nominating Committee, 2013-2015.
2. Member, Committee of Visitors (COV) Review Panel for the Scientific User Facilities Division within the Office of Basic Energy Sciences, April 2013.
3. Member, Basic Energy Sciences Advisory Committee (BESAC), Office of Science, Department of Energy, 2002-2012.
4. Member, Executive Committee, Division of Laser Science (DLS), APS, 2010-1013
5. Member, Science Advisory Committee, Advanced Light Source (ALS), Lawrence Berkeley National Laboratory (LBNL), 2007-2013.
6. Member, Users Executive Committee, Linac Coherent Light Source (LCLS), SLAC National Acceleratory Laboratory, 2012-2015.
7. Member, Review Committee for the Physics Department, Uppsala University, Uppsala, Sweden, June 2011.
8. Member, Committee of Visitors (COV), Department of Energy Office of Science, AMO Physics, April 2011.
9. *Promoting Diversity;* Member, COACh Advisory Board for Gender Equity in STEM fields, 2009-2013.
10. Member, APS, DAMOP, Nominating Committee, 2008-2010.
11. Member, SSRL, SLAC, Stanford University, Science Advisory Committee (SAC), 2006-2009.
12. Co-team leader (with Lou DiMauro) for Atomic and Molecular Science at the femtosecond Linac Coherent Light Source (LCLS) at SLAC, Stanford, CA (2004-present).
13. Co-Chair (with Artie Bienenstock), "Strengthening the Physics Enterprise in Universities and National Laboratories through Gender Equity", APS, CSWP, May 7-9, 2007.
14. Co-Chair (with John Tanis), International Conference on Photonic, Electronics and Atomic Collisions, 09



BETTACHY Mina: Professor of physics and Material science/Faculty of Science Ben M'sik- (HassanII- Mohamedia University Casablanca). B.P.7955- Sidi Othman- Casablanca/ Morocco.
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Research Areas:

Polymer physics – gels - interpenetrated gels; statistical physics and thermodynamics; dynamic of nanoparticles and colloids, phase transitions and critical phenomena; solid state physics and liquid state physics.

Area of Research/ Teaching

Professor researcher, I taught different subjects in physics at several levels. I contributed to the development of several academic training and creation of undergraduate and masters and applied degrees (professional license).

Currently I am part of a research group working on the modeling of a number of problems in the field of polymer physics and soft matter. I am particularly interested in the problem of micro-phase separation in interpenetrated gels in presence of impurities and crosslinked gels in a confined space.
Other Areas of Interest: Gender and Science/ Cultural Awareness Scientific.

Academic Qualifications:

- Bachelor in mathematics (Rabat/1976)
- Licence in physics (Electronics) /University Mohamed- V- Faculty of Science Rabat/ Morocco) 1980.
- Diploma of Advanced Studies (DEA) in Physics- Option: thermodynamics. Faculty of science- Rabat (Mohamed- V- University) 1983.
- Diploma of Higher Studies (DES- thesis) in theoretical physics-Option: phase transitions in magnetism. Faculty of science- Rabat (Mohamed- V- University) - 1986.
- PhD in Physics; Option: Polymer Physics and Critical Phenomena- . Faculty of science Ben M'sik- Casablanca/ Hassan- II- Mohammedia University (in collaboration with the Léon Brillouin Laboratory- CEA – Saclay) - 1995.

Employment History:

- Teacher of physics in secondary school in Rabat (1980- 1982)
- Professor assistant in High school for Teachers (Ecole Normale Takddoum- Rabat); 1983-1987.
- Professor- researcher at Faculty of Science Ben M'sik- University Hassan- II- Mohamedia since 1987.
- Professor Lecturer at Faculty of Science Ben M'sik- University Hassan- II- Mohamedia since 1995

- Member of the research laboratory: Polymer Physics and Critical Phenomena- Department of Physics- Faculty of Science Ben M'sik since 1990.
- Director Search Team in the same laboratory since 2000.

Activities and responsibilities

- Founding member of the Moroccan Association of Statistical Physics in1997.
- Founding member and Secretary General of the Moroccan Association of Polymer Physics and Soft Matter since 2000.
- Founding member and Chair of Women in Science in Morocco Association since 2006 (interested in organization of training workshops in computer (using the net, power point... for students and teachers from middle and high schools and organisation of Seminars in popularisation of science in Secondary schools).
- Member of euro- Mediterranean project – SHEMERA- as Expert in science and technology.
- Member of AIPU (International Association for University Teaching) since 2006.
- Member of IUPAP (International Union Of Pure and Applied Physics)- Working Group on Women in Physics.
- Team Leader of the participating group of Moroccan physicists to ICWIP (International Conference on Women In Physics) Seoul –Korea; 2008/ South Africa; 2011.

Mouna Latifa Bouamrani, Professor of Process Engineering and Chemistry
University of Hassan II Mohamedia, B.P 7955, Sidi Othmane, Casablanca, Morocco
E-mail: mlbouamrani@gmail.com

Area of Research/Teaching

Research Interests: Understanding and modeling of adsorption processes in porous media - Valuing certain natural resources - Environmental Impact Studies - Problem of marine sediment dredging - Study the degradation of reinforced concrete structures exposed to marine.

Teaching Interests: Development of courses in process engineering - Coaching groups or individuals towards a positive attitude and personal and professional development.

Biography

Mouna Bouamrani Latifa is a professor in the Department of Chemistry, Faculty of sciences Ben M'sik - Casablanca.
Her research using the study of adsorption on porous media and their modeling are contributions to the understanding of these phenomena and valuing certain natural resources.

Her scientific accomplishments were published in journals of international fame such as elsevier or Phys. Chem. News (CPN) as well as in national journals.

She is a founding member of the Unit Training and Research (UFR) "Science and Physico chemical Process Analysis", with research focus in teaching analytical chemistry.

She is a member Meetings Marine Hydrodynamics, Held every two years at the Faculty of Sciences Ben Sik.

She is a founding member of the Association "Moroccan Society of Sciences Maritime and Port" (SMSMP).

She is a member of the College of Chemistry Department at the Faculty of sciences Ben M'sik – Casablanca.

Rim CHERIF, Department of Physics, Faculty of sciences of Tunis, Tunisia

Area of Research/Teaching

- ***Optical communications: optical fibers, lasers, photodetectors***
- ***Nonlinear optics: highly nonlinear photonic crystal fibers, nonlinear effects***
- ***Nanophotonics: photonic nanowires***
- ***Applications: sensors, couplers, optical sources, supercontinuum generation***

Sue B. Clark
Regents Professor of Chemistry, Washington State University
E-mail: s_clark@wsu.edu

Area of Research/Teaching

My research is focused in analytical and environmental chemistry. My group members and I develop methods for quantification of inorganic contaminants, and we apply those methods to study the geochemistry of those species in environmental systems. We specialize in developing separations coupled with mass spectrometry and other analytical tools to elucidate speciation in complex systems. We also study the geochemical mechanisms of species interactions in environmental media to understand their fate in natural systems. In addition, I teach graduate and undergraduate classes in analytical chemistry, environmental chemistry, and nuclear/radiochemistry.

Biography

SUE B. CLARK, PhD is the Regents Distinguished Professor of Chemistry with tenure at Washington State University in Pullman, Washington. She also holds an appointment to the US Nuclear Waste Technical Review Board, appointed in 2011 by President Barack Obama. Her current research areas include the environmental chemistry of inorganic contaminants, chemistry of industrial waste disposal systems, and analytical separations. She has over 100 peer-reviewed publications in these areas. Her research support includes grants and contracts from the U.S. Department of Defense, the U.S. Department of Homeland Security, the U.S. Nuclear Regulatory Commission, and the U.S. Department of Energy's Office of Science and National Nuclear Security Administration. She joined the Chemistry Department at WSU in 1996 as an Assistant Professor, and served as Department Chair (Aug. 2005 – Dec. 2007). She also served as Interim Vice Chancellor for Academic Affairs at WSU's Tri-Cities campus from Jan 2008 – Aug 2008, and Interim Dean of the College of Sciences (WSU system-wide) from July – December, 2010. Prof. Clark is a Fellow of the American Association for the Advancement of Science (AAAS), the American Chemical Society (ACS), and is the 2012 recipient of the ACS's Olin-Garvan Medal. She is also an elected member of the Washington State Academy of Sciences. She served as an elected member of the Governing Board for the US Council for Chemical Research from 2009 to 2011. She also served on the National Academy's Nuclear and Radiation Studies Board from 2004 to 2009, and was a member of many of the study committees established by the Board. She served on the Basic Energy Sciences Advisory Committee for the U.S. DOE (2003 – 2011), and has served as a consultant to Battelle Memorial Institute and the Helmholtz Association of German Research Centers. Prof. Clark is an Editor for the journal Radiochimica Acta. She holds a BS degree in Chemistry from Lander College (1984, Greenwood, SC) and a PhD degree in Chemistry from Florida State University (1989, Tallahassee, FL). Prior to joining Washington State University, she was an Assistant Research Ecologist at the University of Georgia's Savannah River Ecology Laboratory (1992-1996), and Senior Scientist at Westinghouse Savannah River Company's Savannah River Technology Center (1989-1992).

Name: Btissam EL AMRANI
Professor of Chemistry
University Hassan II, Faculty of Sciences Ain Chock Casablanca
E-mail: elamrani_btissam@yahoo.fr

Area of Research/Teaching

Research Interests:

Implementation of the constructed wetland for the development of agriculture in a solidarity farm of Casablanca suburban (Morocco)
Development of a combined biological treatment of urban wastewater for washing and flotation of phosphates
Characterization and identification of micro pollutants (pesticides) and their metabolites by HPLC / MS / MS

Teaching Interests:

Courses of mass spectrometry and coupling with gas and liquid chromatography for undergraduate and masters, courses of water analysis and introduction of management of water resources and integration of gender dimension in water management for master students.

Biography

Btissam EL AMRANI is a professor in the department of Chemistry at the Faculty of Sciences Ain Chock and supports several courses including the mass spectrometry and coupling GC / MS and HPLC / MS and water analysis. She coordinates the specialized master "Water and Sustainable Development" and a team of research "Physical chemistry and spectroscopy applied to the environment and health".

She has supervised several research on the study of particular fate of pesticides and their metabolites in various environmental compartments (soil and aquatics) as well as characterization, treatment and reuse of wastewater (studies published in journals of international repute and communicated on the international conferences). She has in load two research funded projects both on the water decontamination.

Currently, she directs a pilot project in Douar Ouled Ahmed (suburban area in Casablanca) where a constructed wetland was installed to purify the outflow of a hammam (public bath) in order to reuse it for irrigation of a small shared farm. Such a project allows: a strong reduction of harmful effects, agricultural development, training of women in agro-ecology, creation of social bonds in a context of rural environment, the appreciation of water resources and the poverty reduction.

Beside her scientific career, she has organized and moderated workshops on the protection of water resources, consumption and Citizenship, water, environment and health for public school students and subrurales.

El Hajjaji Souad, Professor in material sciences and environmental chemistry
University Med V – Agdal, Faculty of sciences, Av Ibn Battouta, BP 1014, Agdal, Rabat, Morocco
E-mail:selhajjaji@hotmail.com or hajjajisouad@yahoo.fr

Area of Research

Synthesis or modification of materials and nanomaterials used for water and air depollution. Waste management to make biochars for the amendment of the soil. Study of pesticides in water and soil. Corrosion and protection of materials. Valuation of natural resources (essential oils of medicinal plants).

Teaching

Analytical chemistry, metallurgy, corrosion.

Biography

Pr Souad El Hajjaji is a Teacher in chemistry at the university Med V – Agdal from 1996. She has many papers and communications in material sciences. She works as Consultant to various Moroccan companies (chocolatrie, CL, ONE, ONEP). She is a Coordinator of an international Master's degree with the university of Toulouse (France) in analytical sciences and Environment and director of the international laboratory associated with France and head of project management. She is a Member of International society of electrochemistry (ISE) , Moroccan association for the environment and sustainable devellopement (AMEDD), AMCE. She is a Partner of many projects with Spain, France and Germany. She obtained a prize to finance its research project in photocatalysis of the ISESCO and the international soroptimist organization. She is a member of EMPOWER « Emergent Pollutants in Waste Water » Coordinated by the German cooperation for the Mediterranean Basin. In addition to her research, she is the founder and past president of club soroptimist of Rabat, organization which works at the improvement of the living conditions of the women and the girls in Morocco.

Abdelaziz El Jazouli
Current Appointment: Professor
E-mail: eljazouli_abdelaziz@yahoo.fr

Area of Research/Teaching

Research Interests: Synthesis, structural characterisation and properties of novel inorganic materials phosphates in both crystalline and vitreous forms. Use of numerous techniques, including neutron & X-ray diffraction methods, Raman, UV-visible, EPR,… to characterise materials and improve the understanding of structure-property relationships, particularly in the areas of optics, magnetism, pigments and, biomaterials.

Teaching Interests: Development of courses in solid state chemistry and nanomaterials for graduate and undergraduate students.

Biography : Abdelaziz El Jazouli is a Professor in Material Chemistry at University Hassan II Mohammedia – Casablanca, in Morocco. He began his career at Mohamed V University in Rabat as Assistant (1980 -1981). After obtention of his first Thesis (These de 3ème Cycle, 1981) he was promoted to Maitre Assistant position. In 1983 he moved to University of Bordeaux, in France (Laboratoire de Chimie du Solide) where he obtaind his PhD (Thèse d'Etat Es Sciences, 1986). He joined University Hassan Casablanca in 1986 and was appointed as Maitre de Conference. Since 1990 he is a full Professor.
Abdelaziz's research concerns metal phosphate chemistry: synthesis, structure, characterization and physical properties. Abdelaziz has published over 70 papers in peer reviewed journals and supervised several PhD students. His research is aided by strong collaborations with academic colleagues in Morocco (Casablanca, Meknes), France (Bordeaux, Clermont-Ferrand, Paris, Grenoble), South Africa (Pretoria), USA (Wake Forest), Spain (Malaga, Oviedo) and Tunisia (Tunis). He has also a strong link with phosphate industry in Morocco. Abdelaziz El Jazouli organised several international meetings (conferences, schools, seminars, workshops) in the field of Solid State Chemistry, Crystallography, Material Sciences, Glasses and Phosphates. He is co-founder and active member of several societies and networks (SMC, AMC, REMAT, Africa-MRS, RECHERPHOS, MEHERE, APM…).

Other resposabilities and scientific activites

* Funder and Responsible of «Laboratoire de Chimie des Matériaux Solides» : 1987-2013.
* Head of Chemistry Department : 1993 - 1994.
* Responsible of «UFR Sciences des Matériaux Solides» : 1997-2007
* Member of the Directing Committee of the Chemistry Department: 1988, 1991, 1995, 1996.
* Membre of the Advice Committe of the Faculty: 1990-2003
* President of Examination Board of Bachelor Chemistry: 1988-2007.
* Responsible of «CEA de Chimie Appliquée (Master)» : 1993 /1994.

* Member of the National Organizing Committee of REMCES, AMC and AfricaMRS Conferences.
* Responsible of URAC17 - Unité de Recherche Assiciée au CNRST : 2010-2011.
* Member of the Executif Committee of the Moroccan Society of Crystallography : 2000-2013.
* Member of the Executif Committee of the African Material Research Society : 002-2013.

Mama El Rhazi, Professor of Chemistry
University of Hassan II – Mohammedia – Casablanca,
Faculty of Sciences end technologies, BP-146
20650 Mohammedia - Morocco
E-mail: elrhazim@hotmail.com

Area of Research/Teaching

Research Interests: Development of sensors based on modified electrode by conducting polymers or by metallic film as bismuth for detection of heavy metals or organic compounds in different samples**.**

Teaching Interests: electrochemistry, analytical chemistry ,

Biography

Mama El Rhazi obtained her MSc Honours in Electrohemistry from the University Pierre et Marie curie, France and her PhD in electrochemistry in 1992 under the direction of Prof. Claude Deslouis and B.Tribolet investigating the modified electrodes by impedance techniques. She started her career by teaching chemistry in the university of Versailles saint –Quentin (France). She then moved to the University of Hassan II- Mohammedia (Morocco). She was also invited as associate professor in university of Cergy-Pontoise – France, during 1994 and 1996.

She is currently professor in department of chemistry in Faculty of Sciences and Technologies of Mohammedia. She is President of Moroccan Society of Analytical Chemistry for sustainable development. Chair of the first symposium on analytical chemistry for sustainable development organized in Faculty of sciences and technologies in 2010. Chair of the The second international symposium on "Analytical Chemistry for a Sustainable Development"- ACSD 2013 And The 4th Federation of African Societies of Chemistry (FASC) Congress (7-9 May 2013). She is a member of Federation of African Societies of Chemistry, Pan African network and Arab Union of Chemists.
Her research interests include electroanalysis, modified electrode by conducting polymers or by metallic film as bismuth for detection of heavy metals or organic compounds.

Jessica Greene, Ph.D.
George Washington University

Area of Research/Teaching

- Evaluation of policies intended to improve health care quality
- Impacts of programs and policies on racial/ethnic, socio-economic, and gender outcomes
- Investigations of how patient engagement influences health outcomes

Name: Laura H. Greene

Current Appointment: Swanlund and Center for Advanced Study Professor of Physics
Associate Director, Center for Emergent Superconductivity

E-mail: lhgreene@illinois.edu

Area of Research/Teaching

Laura H Greene's research is in experimental condensed matter physics investigating strongly correlated electron systems with a focus on high-temperature superconductivity. She employs planar tunneling and quasiparticle scattering (point contact) electron spectroscopies to determine electronic structure with a goal of elucidating the fundamental mechanism high-temperature superconductivity. She also coordinates experimental, theoretical, and computational studies towards predictive design of new families of superconducting materials; both for fundamental understanding and applications. Electronic structure studies of related materials, including heavy fermions and topological insulators are also carried out.

Greene has taught a variety of physics courses, including condensed matter physics, thermal physics, and quantum mechanics and is developing a course, "experimental aspects of strongly-correlated electron systems." She grew the outreach course "How Things Work" from 60 to 630 students.

Biography

Laura H. Greene is the Swanlund Professor and Center for Advanced Study Professor, Department of Physics and the Materials Research Laboratory at the University of Illinois at Urbana-Champaign. She is also an, Associate Director for the Center for Emergent Superconductivity, an Energy Frontier Research Center. Her research is in experimental condensed matter physics, working to elucidate the mechanisms of unconventional superconductivity, and developing methods for predictive design of new families of superconducting materials. Other areas of investigation include spectroscopic studies of the electronic structure of other novel systems, including heavy fermions and topological materials. Her recent service includes being vice-chair of the Division of Materials Physics and on Council of the Forum for Outreach and Engaging the Public of the American Physical Society. She is a member of the International Union for Pure and Applied Physics, the Board on Physics and Astronomy of the National Academy of Sciences, and her various editorial positions include editor-in-chief of *Reports on the Progress in Physics*. Greene is a member of the US National Academy of Sciences, and Fellow of the American Academy of Arts and Sciences, Institute of Physics (U.K.), Phi Kappa Phi honor society, the American Academy of Arts and Sciences, American Association for the Advancement of Science, and American Physical Society. Her Awards/Honors include: A Guggenheim Fellowship; The E.O. Lawrence Award for Materials Research - U.S. DoE; the Maria Goeppert-Mayer Award - American Physical Society; and the Bellcore Award of Excellence.

Name and Institution: Sonia Haddad
Laboratoire de Physique de la Matière Condensée,
Département de Physique, Faculté des Sciences de Tunis, Université Tunis El Manar

Area of Research

Solid state Physics: theory of low dimensional superconductors and graphene

Teaching

General physics (classical mechanics, electromagnetism, optics),

Introduction to Astrophysics,

Statistical Physics,

Solid state physics,

Special relativity,

Research Methodology.

PERSONAL DETAILS

Family name: HALLICHE

Given names: DJAMILA

Adress: Lab. De Chimie du Gaz Naturel (LCGN), Faculté de Chimie, USTHB, BP32, El-Alia, Alger, Algérie.

Phone number: +213 21 247311/213 (0) 62010146

E-mail: dhalliche@yahoo.fr

Nationality: Algerian

Djamila Halliche Professor in the Department of organic chemistry at the University of Sciences and Technology Houari Boumedienne (USTHB) of Algiers.

Djamila Halliche is a native from Algeria. Following her youth in Algiers, she get a baccalaureate in mathematics and in 1992 received her D.E.S. (Diplome d'Etudes Superieures) in Chemistry, and her Magister in organic Chemistry, both from the University of Sciences and Technology Houari Boumedienne (USTHB) in 1995.

From 1996-2005, she was teaching Chemistry to the first and the second level of graduate students (thermodynamic, general chemistry, organic and inorganic chemistry) as Maitre assistant teacher, in USTHB . I am currently a director of research, with Professor title (from 2010) and I supervise several theses of doctorate.

Actually, Prof.Halliche works as head of team researchers. Her challenge was essentially the synthesis of nanomaterials catalysts used for methane reforming reactions (either by CO_2, H_2O or O_2). These catalytic applications present a very important environmental implication since both CH_4 and CO_2 contribute to the green house effect. Therefore, converting these two gases into a valuable synthesis gas may not only reduce atmospheric emissions of CO_2 and CH_4, but also satisfy the requirement of many synthesis processes in the chemical industry .

After receiving the Phd in organic Chemistry, Prof. Djamila Halliche directed several projects on catalytic applications with important environmental implication (as water depolution, H_2 synthesis) .

Her scientific interests are Surface Science and Engineering (surface analysis, surface reactions adsorption –desorption, Spectroscopy, Materials Characterization and Physical Properties of Matter, H2 as). All those experiences allowed her to supervise diverse students of different levels.

Pr. Djamila Halliche was a member of the Algerian Chemical Society (SAC) since 1997. She has enjoyed beneficial collaboration with different Algerian universities (Univ.UMMB, Univ.Tizi-Ouzou, Bejaia etc ..) and outside collaborations with Professors Juan P.Holgado and Rosa María Martín Aranda from Departamento of Química Inorgánica (UNED) from (Spain) and others from France.

Prof.D.Halliche participates in the organization of a very successful International and national conferences concerning environmental impact , materials synthesis and characterization.

Insaf JAAFAR,

Department of Telecommunications,

Higher Institute of Technological Studies in Communications of Tunis

Area of Research/Teaching

- ***Mobiles Networks***
- ***Networking Concepts with an emphasis on theory and practical application.***
- ***Signal and Array Processing***

Saida KRIMI, Professor of Chemistry and Materials Sciences
University Hassan II, Casablanca, Morocco
Krimisaida@yahoo.fr

Area of Research/Teaching

Research Interests:

Professor Krimi's research activities are mainly aimed at synthesis of new inorganic materials, determination of their structure and study of their physical and chemical properties. These materials have interesting proprieties in the field of health, energy and environment.

Teaching Interests:

- Basic chemistry for undergraduate level
- Crystallography for undergraduate level
- Amorphous materials for graduate level

Biography:

Third Cycle Thesis in Materials Sciences, University Hassan II – Casablanca, Morocco (1992)
Ph.D. in Materials Sciences, University Hassan II – Mohammadia Casablanca, Morocco (2000)
Responsible of "Chemistry and Valorization" Master
Member of the Moroccan Society of Crystallography
Member of the organizing committees of schools and conferences:
*12th Moroccan Meeting on Solid State Chemistry (REMCES'XII) (2012)
* First North African Crystallographic Conference - NACC1 (2010)
* First African School on Materials: Tutorials on Chemistry and Physics of Inorganic and Nanostructures Materials (2007)
Publications (2006-2013):
Synthesis, crystal structure, and vibrational spectroscopic and UV-visible studies of $Cs_2MnP_2O_7$
S. Kaoua, S. Krimi, S. Péchev, P. Gravereau, J.P. Chaminade, M. Couzi, A. ElJazouli.
Journal of Solid State Chemistry **198** (2013) 379-385
Syntheses and crystal structures of new vanadium (IV) oxyphosphates $M(VO)_2(PO_4)_2$ with M = Co, Ni
Kaoua S., Gravereau P., Chaminade J.-P., Pechev S., Krimi S., El Jazouli A., Solid State Sciences 11, 3 (2009) 628-634
Synthesis, structure refinement and characterisation of a new oxyphosphate $Mg_{0.5}TiO(PO_4)$
S. Benmokhtar, A. El Jazouli, S. Krimi, J.P. Chaminade , P. Gravereau , M. Ménétrier, D. De Waal, Materials Research Bulletin **42**, 5 (2007) 892-903
Preparation and characterization of phosphate glasses containing titanium and vanadium
S. Kaoua, S. Krimi, A. El Jazouli, E. K Hlil and D. de Waal, Journal of Alloys and Compounds, 429, 276-279 (2006).

Christy F. Landes

Assistant Professor of Chemistry and Electrical and Computer Engineering
Rice University
E-mail: cflandes@rice.edu
Web: lrg.rice.edu

Area of Research/Teaching

As experimental physical chemists, the overall goal of our research is to understand the frequently complex structure-function relationships in biological systems and to use this information to inspire innovation in biomimetic materials design.

Innate benchmarks in materials engineering include cost, efficiency, and longevity. As our experimental and theoretical ability to observe nature's molecular-scale methods have improved, we begin to understand that one reason nature can be so successful is that her design strategy differs from ours. Whereas humans usually design materials with a single, well-defined function, nature often acts through redundant or degenerate channels that are singly not as efficient, but collectively, and in the face of damage or wear, outperform their synthetic cousins.

Our central question is: Can we take cues from the structure-function interplay and use of cooperative pathways in nature's biomolecular processes to inform design principles for tailoring functional materials applications? The pursuit of answers to this question presents challenges for theory, measurement, and data interpretation.

Biography

Christy F. Landes, PhD is an Assistant Professor in the Departments of Chemistry and Electrical and Chemical Engineering at Rice University in Houston, TX. After graduating from George Mason University in 1998, she received a Ph.D. in Physical Chemistry from the Georgia Institute of Technology in 2003 under the direction of National Academy member Prof. Mostafa El-Sayed. She was a postdoctoral researcher at the University of Oregon and an NIH postdoctoral fellow at the University of Texas at Austin, under the direction of National Academy members Prof. Geraldine Richmond and Prof. Paul Barbara, respectively, before joining the University of Houston as an assistant professor in 2006. She moved to her current position at Rice in 2009, earning an NSF CAREER award for her tenure-track work in 2011.

Selected Publications

Poddar, N.K.; Chen. J.; Tauzin, L.T.; Kolomeisky, A.B.; Landes, C.F. "Multi-loop DNA Hairpin Folding/Unfolding" *J. Am. Chem. Soc.* **2013** In press.

Shuang, B.; Byers, C.P.; Kisley, L.; Wang, L.Y.; Zhao, J.; Morimura, H.; Link.S.; Landes, C.F. "Improved Analysis for Determining Diffusion Coefficients from Short Single-molecule Trajectories with Photoblinking" *Langmuir*, **2013**, 29, 228-234.

Reznik, C.; Landes, C.F. "Transport in Supported Polyelectrolyte Brushes" *Accounts of Chemical Research*, **2012**, 45, 1927-1935.

Landes, C.F.; Rambhadran, A.; Taylor, J.N.; Salatan, F.; Jayaraman, V. "Structural Landscape of the Isolated Agonist Binding Domain of the AMPA Receptor Studied by Single Molecule FRET", *Nature Chemical Biology*, **2011**, 7, 168-173.

Taylor, J. N.; Makarov, D.E.; Landes, C.F. "Denoising Single-Molecule FRET Trajectories with Wavelets and Bayesian Inference" *Biophysical Journal*, **2010**, 98, 164-173.

Dalila LOUDYI, Professor of Environmental Water Engineering,
University Hassan II Mohammedia – Casablanca
E-mail: ***loudyi.d@gmail.com***

Area of Research/Teaching

Research interest: Protecting water resources, Surface and groundwater, Numerical modelling (flow and pollutant transport), Hydroinformatics, Climate change adaptation and mitigation and water (floods and droughts cases). Urban water (water and sewage systems).

Teaching interest: Raising public environmental awareness, improving environmental literacy within educational system. Developing didactic in engineering education. Hydrology and Wastewater engineering courses. Building practical works for engineering courses, mainly in:

* Channels Hydraulic courses.
* Hydrogeology and Soil contamination courses.
* Hydrology and water management
* Urban water.

Biography

Dalila Loudyi is a Professor at the department of Chemical and Environment Engineering at the Faculty of Sciences and Techniques – University Hassan II Mohammedia – Casablanca. She is lecturing and supervising many courses for engineers in water and environment. In 1995, she graduated from Mohammedia School of engineers, one of the oldest schools of engineers in Morocco. In 2005, she got her PhD in Hydroinformatics at Cardiff school of engineering- one of the highest ranked schools in civil engineering in Britain.

Prof. Loudyi has been selected by the Moroccan ministry of higher education as a National Contact Point in environment, since 2010, to promote the use of the Seventh European Framework Program (FP7) for research and development at a national level. For this matter, she organises different information and training events for the 15 universities of Morocco. In 2010, she took part at Qatar University to the building up committee of the Arab Network for environmental Science under the umbrella of the Federation of Arab Scientific Research Councils based in Khartoum-Soudan. In 2011, she was appointed as member of the Leadership Team of the International Association Hydro-Environment Engineering and Research (IAHR) MENA Collaboration Committee. Dalila Loudyi is also Secretary General of the Moroccan American Friendship Foundation (MAFF) and an alumni of the Department of State Techwomen program.

Picture 

Name and Institution: Manel MEDHIOUB, ESPRIT

Area of Research/Teaching: ***Cloud Computing, Network and services administration,***

Information Systems Security and Information systems

Khadija Morsli
Researcher in Analysis and Quality Assurance Department
Research & Development Direction
OCP S.A.
E-mail: morsli@ocpgroup.ma

Area of Research/Teaching

- Development of specific analytical methods and physico-chemical characterization using new technics.
- Development of analytical methods for new products and materials produced by OCP group.
- Research of opportunities for recovery or recycling of phosphates industrial waste: phosphogypsum, used graphite blocks, ...).
- Achievement of studies and research related to development of new phosphate based materials and derived products.

Biography

Khadija Morsli obtained her PhD (cum laude) in Chemistry at the University of Málaga in 2007. In 2008 she joined the OCP Group as a researcher in inorganic chemistry and physico-chemical characterization. In addition to her research she is member of Committee of hygiene, safety environment of the Research & Development Direction.

Kathryn Pharr
Science, Technology, and Innovation Project Manager
Office of Science and Technology Cooperation
Bureau of Oceans and International Environmental and Scientific Affairs
U.S. Department of State
PharrK@state.gov
(202) 663-2399

What I Do: As a Science, Technology, and Innovation Project Manager, I help design and execute programs that promote U.S. foreign policy through science. Through a series of grants, I focus on building capacity of youth and women, particularly in science research and technology innovation. Specifically, I oversee programs that train young men and women to become the next generation of scientific leaders through professional skills development and technology commercialization.

My Background: Through an internship that was truly interdisciplinary, I decided I wanted to blend my love of history and government with science by double majoring in International Relations and Chemistry at the College of William and Mary. My goal was to create a career that would foster international dialogue on science and would emphasis the importance of this field to the general public. After earning my Masters of Science in Analytical Chemistry at Wake Forest University, I volunteered for a year teaching in the Levante. I loved getting to know new cultures and traditions, so I came back to the States and worked with USAID on an international IT project that took me to Africa and Southeast Asia. For the last year and a half, I've enjoyed working at the U.S. Department of State to advance its policies centered on promoting science, increasing women in science, and support youth in science and technology. I have particularly enjoyed starting Partnership Opportunities for Women Water Engineers and Researchers (POWWER) with COACh.

Geraldine Richmond, Professor of Chemistry and Materials Science
University of Oregon, Eugene, OR 97403
E-mail: richmond@uoregon.edu

Area of Research/Teaching

Research Interests: Understanding the molecular structure and dynamics of interfacial processes that have relevance to environmental remediation, biomolecular assembly, atmospheric chemistry and alternative energy sources; laser spectroscopy and surface science.

Teaching Interests: Development of courses in science literacy for nonscientists, career development courses for emerging and career scientists and engineers.

Biography

Geraldine (Geri) Richmond is the Richard M. and Patricia H. Noyes Professor in the Department of Chemistry and Materials Science Institute at the University of Oregon. Her research using laser spectroscopy and computational methods has made many contributions to our understanding of the chemistry and physics that occurs at complex surfaces and interfaces that have relevance to important problems in energy production, environmental remediation, atmospheric chemistry and biomolecular surfaces. Awards for her scientific accomplishments include the American Chemical Society (ACS) Garvan Medal, the Spectrochemical Analysis Award, the Spiers Medal of the Royal Society of Chemistry, a Guggenheim Fellow, the Bomem-Michaelson Award, the ACS Joel Henry Hildebrand Award in the Theoretical and Experimental Chemistry of Liquids and the APS Davisson-Germer Prize in Surface Physics. She is a fellow of the American Physical Society, the American Chemical Society, the American Association of the Advancement of Science, the Society for Applied Spectroscopy, the Association for Women in Science, the American Academy of Arts and Sciences and is a member of the National Academy of Sciences. Her most recent appointment is to the national Science Board. In addition to her research she is the founder and chair of COACh, a grass-roots organization assisting in the advancement of women faculty in science and engineering. She has been honored for these efforts by the Presidential Award for Excellence in Science and Engineering Mentoring, the ACS Charles L. Parsons Award, the ACS Award for Encouraging Women in the Chemical Sciences and the Council on Chemical Research Diversity Award.

Personal details
Family name: SAOULA
Given names: NADIA
Address: Centre de Développement des Technologies Avancées (CDTA)
DMIL, Cité du 20 aout 1956, Baba Hassen, Algiers, Algeria
Phone number: +213 21 35 10 18/
E-mail: nsaoula@yahoo.fr ; nsaoula@cdta.dz
Nationality: Algerian

Nadia Saoula is a native from Algeria. Following her youth in Algiers, she get a baccalaureate in mathematics and in 1992 received her D.E.S. (Diplome d'Etudes Superieures) in Chemistry, and her Magister in Physics-Chemistry, both from the University of Sciences and Technology Houari Boumedienne (USTHB) in 1999. She works on the study of nitriding carboreduction of titanium dioxide by X diffraction at high temperature.

From 1994-2004, she was teaching Chemistry to the first and the second level of graduate students (thermodynamic, kinetics, and organic chemistry) as assistant teacher, in USTHB and the University of Medicine and Pharmacy.

She was the first chemist who joined the Centre for Development of Advanced Technologies (CDTA) as Research Associate in Plasma group. Her challenge was to start the deposition of hard coating by sputtering deposition. By 2005, she was a Research Fellow in the same group. After receiving the Phd in Physics-Chemistry, she directed several projects on the surface treatment by plasma, and particularly the deposition of coating by sputtering for many applications (optical, protective, mechanical,…). Her scientific interests are Surface Science and Engineering (surface analysis, Plasma-materials Interaction, Plasma Spectroscopy, Materials Characterisation, and Physical Properties of Matter),Surface Modification Techniques (Plasma Techniques, PVD, Electrochemical,…).All those experiences allowed her to supervise diverse students of different levels.

Dr Nadia Saoula was a member of the Algerian Chemical Society (SAC) since 1997 and in 2001 and a member in the board of this society.
She has enjoyed beneficial collaboration with different Algerian universities and outside collaborations with Professor Darell Comins and his research group in the School of Physics at University of the Witwatersrand, Johannesburg in South Africa. She is implicated in "African Laser Center (ALC)" project, since 2008.

Miss Saoula participates in the organization of a very successful International conference of Laser and Plasma Applications in Material Sciences which held in Algiers during 27 -30 November, 2010. And she also, takes part to the local organizing committee of the first COACh workshop "Women Career Building Workshops" held in January 2013 in Algiers.

In the future, she will also take part in Local Organizing Committee of the third International Conference on "LAPAMS 2013" which will be held in Kolkata, India Organized by IIT Kharagpur in association with IIT Kanpur & CDTA, Algeria.

Nawal SEMLAL
Head of "Materials and Corrosion" R&D Unit – Research & Development Direction
OCP S.A.
E-mail: n.semlal@ocpgroup.ma

Area of Research/Teaching

- Development of new anti-corrosion solutions adapted to OCP facilities
- Research of possibilities of valorization of the phosphate industry by-products in the fields of materials
- Development of new phosphate based materials

Biography

Nawal SEMLAL holds a materials engineering Diploma from the Ecole Européenne des Ingénieurs en genies des Metériaux (INPL – Nancy, France) and Ecole Nationale de l'Industrie Minérale (Rabat, Morocco). She joined the OCP Group R&D Centre (CERPHOS) in 2006, where she was in charge of research and studies in the fields of corrosion and materials protection.
Currently she is the Head of the "Materials and Corrosion" R&D Unit at OCP Group. She is also a member of the scientific and technological watching group.
She is certified Afnor in the field of Cathodic Protection (2007 – 2012)

JANET TATE

Department of Physics, Oregon State University, 301Weniger Hall

Corvallis, OR 97331-6507

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E-mail: tate@physics.oregonstate.edu

Website: http://www.physics.oregonstate.edu/~tate

Janet Tate is Professor of Physics and Adjunct Professor of Chemistry at Oregon State University in Corvallis, Oregon, USA. She has been at OSU since 1989. She studied as an undergraduate at the University of Natal (now University of KwaZulu-Natal), South Africa and received a B.Sc. degree in Physics and Chemistry and a B.Sc. (Honours) degree in Physics in 1981. Her Ph.D. degree (1988) is from Stanford University, California, where she studied condensed matter physics under the direction of Prof Blas Cabrera. Her Ph.D. thesis was a precision measurement of the electron mass using a rotating superconductor. She received a Humboldt fellowship (1988-1989) for postdoctoral work with Prof. Helmut Kinder at the Technische Universität München, Germany, where she first studied high-temperature superconductors. She set up an experimental thin-film laboratory at Oregon State University on her return to the United States, and has been engaged in materials physics research ever since, studying the structural, optical, electronic, and thermal properties of high temperature superconductors, electroluminescent materials, transparent semiconductors, and solar cell absorbers, among other materials.

Prof. Tate also participates in several education projects. *Paradigms in Physics* is a redesign of the upper-division physics curriculum that emphasizes active engagement and thinking like a professional. She was chair of a conference on Graduate Education while serving on the American Physical Society Committee on Education. She currently serves on the APS Committee on Careers and Professional Development.

She lives in Corvallis, Oregon, with her husband, who is a physics professor at Oregon State University. She has 2 college-aged children, who are also studying physics.

Mary J. Wirth, Purdue University
W. Brooks Fortune Distinguished Professor—Analytical Chemistry
Email: mwirth@purdue.edu

New materials for protein separations/Analytical Chemistry

We work at the interface of chemistry and medicine, and our focus is to create technology for earlier detection of diseases. The dream of 21st century medicine is that simple lab tests will reveal diseases well before the onset of symptoms, while the disease is easily curable. We are using nanotechnology to modernize the materials used for lab tests and for the discovery of the biomarkers that are the targets of lab tests.

Education

B.S. Northern Illinois University, 1974; Ph.D. Purdue University, 1978.

Recognitions

- EAS Award for Outstanding Achievements in the fields of Analytical Chemistry, 2012
- Distinguished Alumni Award, Northern Illinois University, 2011
- Sigma Xi Faculty Research Award, Purdue Chapter, 2011
- Fellow of the American Association for the Advancement of Science, 2010
- Distinguished Alumni Award, Northern Illinois University, 2009
- Centennial Distinguished Lecturer, University of Texas-Austin, 2008
- Leading Edge Researcher, University of Arizona, 2008
- Distinguished Chemistry Alumni Award, Purdue University, 2007
- Harold A. Iddles Lecturer, University of New Hampshire, 2007
- ACS Division of Analytical Chemistry Award in Spectrochemical Analysis, 2006
- Gold Medal Award, NY Section, Society for Applied Spectroscopy, 2005
- C. Eugene Bennett Professor of Chemistry, 2002-2004
- Distinguished Lecturer, Texas A&M University, 2002
- Chair, Gordon Conference on Analytical Chemistry, 1995
- National Science Foundation Creativity Award, 1994
- Clifford C. Hach Lecturer, University of Wyoming, 1992
- W. Allan Powell Lecturer, University of Richmond, 1988

Selected Publications

- Robert E. Birdsall and Mary J. Wirth, Modeling of protein electrophoresis in silica colloidal crystals bearing brush layers of polyacrylamide. *Electrophoresis* **2013 ,** DOI: 10.1002, /elps.201200413.
- Benjamin A. Rogers and Mary J. Wirth, Slip flow through hydrophobic silica colloidal crystals of varying particle diameter. *ACS Nano* **2013 ,** DOI: 10.1021, /nn305028f.
- Koshel, B. M.;Wirth, M. J., Trajectory of isoelectric focusing from gels to capillaries to immobilized gradients in capillaries . *Proteomics* **2012 ,** 12 , 2918-2926.

Khadija ZIAT, Professor of chemistry
Faculty of Science and Techniques,
Ancienne Route de l'Aéroport, Km 10, Ziaten. BP: 416,
Tangier - Morocco
E-mail: khadijaziat@gmail.com

Area of Research/Teaching

Research Interests: Search of low cost and eco-friendly materials for wastewater treatment and understanding of the interfacial phenomena.

Teaching Interests: Teaching courses of personal development for different levels of education.

Biography

Khadija Ziat is a professor in the Department of Chemistry of the Faculty of Science and Technique at the University of Abdelmalek Essaadi. She holds two PhD in sciences. The first one in Chemistry and Physical Chemistry from the University of Strasbourg (France) and the second in Process Engineering, at Mohammedia School of Engineers Rabat, Morocco. After her first PhD, Prof. K. Ziat was involved in research as a Postdoctoral fellow at Johannes Gutenberg University Mainz, Germany. She is an author and co-author of many published papers and proceeding. Since 2006, she is Expert scientist in material science (Chemical Sciences) for the Agence Universitaire de la Francophonie (AUF) since 2006. She is also a member of different scientific committee as the National Scientific Committee of Persistent organic Pollutants (POPs), the Scientific Committee of the Faculty of Science and Technology of Tangier, and the International Congress COVAPHOS (Conference on the Valorization of Phosphates and Phosphorus Compounds). She is the organizer of different activities related to science as the National Award of Young Researcher "Phosphates and phosphorus compounds" and the International Conference "Materials, Pollution and Environment". Beside her scientific research activities, Prof. Ziat is also participating as a member in the Moroccan Association of Environment and Sustainable Development (AMEDD) and the Association Morocco Science and Sustainable Development (MS2D).