

Mohammed M. Al Subu' / 2009

Quality Higher Education Expert,

Professor Doctor/ Chemistry & Environment - NNU

Head/ Accreditation & Quality Assurance Commission (AQAC) - MoEHE

Acting Head/ Palestinian Curriculum Developing Center (PCDC) - MoEHE

Secretary General/ Quality Improvement Fund (QIF) - World Bank- MoEHE
TEP

Board member/ Arab Network Quality Assurance of Higher Education
(ANQAHE)

Board member/ Supreme Committee of H.E. Diplomas' Recognition - MoEHE

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Research Interests

- Quality Assurance of Higher & General Education
- Reaction mechanisms
- Catalysis
- Crown Ethers
- Impact of heavy metals on plants, soil & groundwater
- Phytoremediation
- DNA – biosensors

Education

- Ph.D., University of Florida, Gainesville, Florida, U.S.A (December 1984).
- M.Sc., University of Jordan, Amman, Jordan (June 1979).
- B.Sc., University of Jordan, Amman, Jordan (February 1977).

Employments

- Professor, An Najah N. University, Nablus, Palestine (- to July 2006).
- Head/ Accreditation & Quality Assurance Commission (AQAC)/ Ministry of Education & Higher Education (MoEHE) (August 2006 – present)

- Acting head, Palestinian Curriculum Developing Center (PCDC) (October 2006 – present)

Committees Participation

International Level

- Coordinator of TEMPUS project/ Palestine (2006- 2008)
- Coordinator of RUFU project/ Palestine (2006-2008)

Country Level

- Director of the Palestinian National Team/ Chemistry texts (11th & 12th grades) - Ministry of Education.
- Palestinian Council of Higher Education (CHE)/ observer.
- Supreme committee of recognition of H.E. diplomas- MoHE
- General secretary of Quality Improvement Fund (QIF) Project/ MoHE - World Bank
- National Teacher Education Strategy in Palestine (TES) 2008-2012

University Level

- Editorial Board of An-Najah J. Res., (1991-1993 & 2003- 2005).
- Scientific Research Council, (1994-1996 & 1999- 2001).
- University Council (1999- 2001).
- Board of College of Graduate Studies (1999-2001).

College Level

- Board of College of Science.
- Scientific committee.

Departmental Level

- Safety, Library, Curriculum, & Equipments Committees
- Graduate Student selection committee.

Teaching Experience

- General Chemistry: All courses.
- Inorganic Chemistry Courses:

Undergraduate level: Introduction to Inorganic Chemistry (Junior level), Coordination Chemistry (Junior level), Practical Inorganic Chemistry (Junior & Senior levels), Advanced Inorganic Chemistry (Senior level), Industrial Inorganic Chemistry (senior level) and Special topics in Inorganic Chemistry (senior level).

Graduate level: Advanced Inorganic Chemistry (M.Sc), Special topics (M.Sc), Chemistry of Nonmetals (Ph. D), and Chemistry of Metals (Ph. D).

- Environmental Chemistry:

Chemical Pollution & Industrial Safety (senior level), Environmental Chemistry (M.Sc & Ph. D levels), and Water Chemistry (M.Sc level/ Civil Engineering)

Supervised M.Sc. Theses

- Kinetics and mechanisms of oxidation of some nitrogen containing compounds by potassium hexacyanoferrate(III) in aqueous medium. H. Abed (1988).
- Kinetics and mechanisms of oxidation of secondary amines by alkaline potassium hexacyanoferrate(III) . H. El-Aila (1989).
- Kinetics and mechanisms of Os(VIII) catalyzed oxidation of some alicyclic amines by potassium hexacyanoferrate(III) in alkaline medium. A. Amer (1992).
- Effects on growth and uptake of broad beans and carrots by root and foliar treatments of plant with lead, cadmium and copper. A. Douleh (1993).
- Effects of cadmium lead and copper on the growth and metal uptake of radish and marrow vegetables. A. Atallah (1993).
- Effects of root and foliar treatment with cadmium on the growth and on the cadmium uptake of pepper and okra plants. Y. Ismaeel (1994).
- The effects of lead, cadmium, copper and zinc on the growth and the metal uptake of cauliflower, spinach and parsley. M. Issa (1994).
- Kinetics of the removal of lead from polluted water using decaying cypress leaves. S.Qashoa' (1994).
- Kinetics and mechanisms of oxidation of 1-octene, heptanal and 1-heptanol by potassium permanganate in non-aqueous solvents in the presence of 18-crown-6 ether. S. Dado (1997).
- Removal of copper and zinc by decaying leaves. H.Braik (1998).
- Effect of acidity on the removal of copper and zinc by decaying leaves. I. Abu- Shqair (1998).
- Removal of iron from polluted water using walnut and pomegranate leaves. Anees A Abu-Attayeb (1999).
- Anaerobic treatment of olive mills wastewater using up-flow anaerobic sludge blanket (UASB) reactor. Y. Subuh (1999).
- Impact of irrigation with high heavy metals concentration on soil and groundwater. I. Myzad (2000).
- Blood lead levels among school children in Jenin District: a developed anodic stripping voltametry method (ASV/HDME) for blood lead measurement. A. Zyoud (2001).
- Removal of heavy metals (Cd, Zn, & Pb) from water using *Tamrix gallica* leaves. Taysser El-Ghoti (2002) Al A'zher University, Gaza, Palestine.
- The interaction effects of styrax, plum and walnut leaves on their efficiencies for Cadmium removal from aqueous solutions. E. F. Dawod (2003).
- Medical waste management and occupational health in dental clinics in Nablus District. S. Musleh (2004).
- I. Heavy metals in food, II. Oxidation of galactose. Sh. Suliman (2004).

- Investigation of occupational health and safety hazards among domestic waste collectors in Bethlehem and Hebron Districts. A. Millhem (2004).
- Several graduation projects for Chemical Engineering Students. Supervised Ph.D. Dissertations
- Determination of some fluoroquinolone antibacterials with DNA – modified electrodes and their oxidation by potassium hexacyano-ferrate(III). I. Abu- Shqair (2006).

Other Activities

- Participation in the establishment of several Bachelor, Master & Doctorate academic programs in several institutions.
- Revision & Evaluation of academic programs for accreditation by the Ministry of Education.
- Reviewer for several international leading scientific journals.
- Member of Examination committees for a number of master theses in Chemistry, Environmental Science, General Health, Education and Engineering.

PUBLICATIONS

Books

1. Chemistry Book for 11th grade, part(I), Palestinian Ministry of Education (2005)
2. Chemistry Book for 11th grade, part(II), Palestinian Ministry of Education (2005)
3. Chemistry Book for 12th grade, Palestinian Ministry of Education (2006)
4. Accreditation Manual (2008)

Periodicals

I. Reaction Mechanisms

A. Catalyzed reactions

- "Osmium(VIII)-catalyzed oxidation of some alicyclic amines by hexacyanoferrate(III) in alkaline media: A kinetic and mechanism study" *Chemistry of Heterocyclic Compounds*, 4, (2003), 559 - 565.
- "Kinetics and mechanisms of oxidation of 1-octene and heptanal by crown ether-solubilized potassium permanganate in non-aqueous solvents". *Transition metal chemistry*, 27 (2002), 223 - 227.
- "Osmium(VIII)-catalyze oxidation of pentamethylene sulfide" *Transition metal chemistry*, 29 (2004), 91 - 95.
- "Kinetics and mechanism of osmium(VIII)-catalyzed oxidation of thiomorpholine by alkaline hexacyanoferrate(III)". *PJAS*, 2 (2002) 742-746.

- "Kinetics and mechanism of osmium(VIII)-catalyzed oxidation of 1,4-thioxane by alkaline hexacyanoferrate(III)". *Transition metal chemistry*, 26 (2001), 461-464.
- "Hydrosilylation reactions catalyzed by decacarbonyldimanganese(0)". *J.Mol. Catal.*, 39 (1987)1-11.

B. Unanalyzed reactions

- "Substitution of aquo–ligands from hexaaquochromium(III) ion by cysteine. A kinetic and mechanistic study" *PJAS*, 3 (2003) 110 - 112.
- "Oxidation of some alicyclic amines by potassium hexacyanoferrate(III) in alkaline medium: a kinetic and mechanistic study" *An-Najah Univ. J. Res.*, 15, (2002), 35 - 39.
- "Stoichiometry, kinetics and mechanism of oxidation of L-cysteine by hexacyanoferrate(III) in acidic media". *An-Najah J. Res.*, 4 (1995), 23 - 41.
- "Kinetics and mechanism of oxidation of diallylamine by alkaline hexacyanoferrate(III)". *An-Najah J. Res.* 7 (1992) 37 - 44.
- "Kinetics and mechanism of oxidation of arylhydrazides by hexacyanoferrate (III) in alkaline medium". *Indian J. Chem. A*, 30, (1991) 717 – 719.
- "Kinetics and mechanism of oxidation of triallylamine by alkaline potassium hexacyanoferrate(III)". *J. Ind. Chem. Soc.*, 67 (1990) 966 - 970.
- "Kinetics and mechanism of oxidation of phenylhydrazine and p-bromophenylhydrazine by hexacyanoferrate(III) in acidic medium". *Int. J. Chem. Kinet.*, 22 (1990) 1027 - 1037.

II. Environmental Chemistry

A. Impact of heavy metals on living systems

- "Anodic stripping voltametry (ASV/HDME) method for blood lead measurement" *Electroanalysis*, (Accepted).
- "Impacts of irrigation with water containing heavy metals on soil and groundwater – a simulation study". *Water, Air, and Soil Pollution* 146 (2003), 141 - 152.
- "Effect of root-treatment of cauliflower, parsley and spinach plants with copper and zinc on the plant-growth". *J.Env. Sci. Health, A*, 30 (1995), 2123 - 2132.
- "Effect of root and foliar treatments with copper on the growth of carrot and on the uptake and distribution of uptake of copper in the various parts of plant". *An-Najah J. Res.*, 3 (1995), 73 - 85.
- "Effects of several factors on the growth and on the metal uptake and distribution of okra plant treated with cadmium". *J. Env. Sci. Health, A*, 30 (1995), 2027 - 2040.
- "Effects of several factors on the growth and on the metal uptake distribution of pepper plants treated with cadmium". *J.Env.Sci.Health, A*, 30 (1995), 1659 - 1684.

- "Effects of irrigation with lead and cadmium on the growth and on the metal uptake of cauliflower, spinach and parsley". *J. Env. Sci. Health, A*, 30 (1995) 831 - 849.
- "Effects of copper on the growth of broad beans (*Vicia Fabal L*) and its distribution in the plant". *The Islamic University Journal*. 2 (1994), 223 - 240.
- "Effect of root and foliar treatments of marrow plants with copper solutions on the growth of plant and on its uptake of copper and distribution of this uptake in the various parts of plant (roots, stem, leave and fruits)". *An-Najah J. Research. A*, 2 (1994) 20 - 33.
- "Combined effects of cadmium, lead and copper on the growth and on metal uptake of broad beans, carrots, radishes and marrow vegetables". *Rev.Int. Contam. Ambient*. 9 (1993), 1 - 9.
- "Effects of root and foliar treatment with lead, cadmium and copper on the uptake distribution and growth of radish plants". *Environmental International*. 19 (1993), 393-404.
- "Effects on growth and uptake distribution of root and foliar treatments of marrow plants with cadmium and lead solutions". *J.Env. Sci. Health, A27* (1992), 2173 - 2190
- "Effects of root and foliar treatments of carrot plants with lead and cadmium on the growth, uptake and the distribution of uptake of metals in treated plants". *J. Env. Sci Health, A*, 27 (1992). 1739 - 1758
- "Effect on growth and uptake of broad beans (*Vicia fabae L*) by root and foliar treatments of plant with lead and cadmium". *J.Env. Sc. Health, A*, 27 (1992). 1619 – 1642.

B. Phytoremediation

- * "Removal of cadmium(II) ions from aqueous solutions by Tamrix Gallica leaves", *J. Env. Eng. & Sci.* Accepted (2006).
- "Removal of zinc from aqueous solutions by dry plant leaves" *Trans Ichem, B* 81 (2003), 236 - 242.
- "Removal of dissolved copper from polluted water using plant leaves: II. Effects of concentration of copper, plant leaves, competing ions and other factors", *Rev.Int. Contam. Ambient*, 17, (2001), 123 - 127.
- "Removal of dissolved copper from polluted water using plant leaves: I. Effects of acidity and plant species", *Rev.Int. Contam. Ambient*. 17, (2001), 91 - 96.
- "The interaction effects of cypress (*Cpressus sempervirens*), cinchona (*Eucalyptus longifolia*) and pine (*Pinus halepensis*) leaves on their efficiencies for lead removal from aqueous solutions". *Adv. Env. Res.*, 6, (2002) 569 - 576.
- "Removal of lead from polluted water using decaying leaves". *J. Env. Sci.Health. A*, 29, (1994), 2087 - 2114.
- "Uptake of cadmium from water by beech leaves". *J. Env. Sci. Health. A*, 27 (1992) 603 – 627.

Conferences and Presentations

a. Scientific

- "Reactions of dinitrogen tetroxide with crown ethers and other cyclic nitrogen and oxygen bases". *Book of Abstracts, 36th Southeastern Regional Meeting, (ACS)* October 24 - 26 (1984), Raleigh, U.S.A.
- "The synthesis of 2,2-diallyltriiazanium chloride and 1,1,1-trialkylhydrazinium chloride and their polymerization". *Book of Abstracts, 36th Southeastern Regional Meeting (ACS)*, October 24 - 26 (1984), Raleigh, U.S.A.
- International Workshop on Occupational Health and Work – Exposure and Safety, April 27 – 28 (1998), Hebron University, Hebron, Palestine.
- "Effect of irrigation with lead and cadmium on the growth and on the metal uptake of cauliflower, spinach and parsley". Environmental protection and environmental awareness in the West Bank and the Gaza strip, December 15 – 16 (1994), An- Najah N. University, Nablus, Palestine.
- "Removal of lead from polluted water using decaying leaves". The International Meeting on Trace Elements in Human Health and Disease, June 19-21 (1994), Leon-Norway.
- "Stoichiometry, kinetics and mechanism of oxidation L-cysteine by hexacyanoferrate (III) in acidic media". The First Palestinian Chemical Conference, July 29-30 (1992), Nablus, West Bank.

b. Quality Conferences, Workshop, Meetings, Lectures,

British Council,

- Regional Quality Assurance Workshop, 8 & 9 November 2006, Damascus, Syria.
- Regional Quality Assurance Workshop, 9 & 10 February 2007, Tunis, Tunis.
- Regional Quality Assurance Workshop, 30/6-7/7 2007, London, U.K.
- Regional Quality Assurance Workshop, 8 & 9 January 2008, Casablanca, Morocco.
- Regional Quality Assurance Workshop, 21-23 June 2008, Cairo, Egypt.
- Regional Quality Assurance Workshop, 2 April 2009, Abu Dhabi, U.A.E.
- Transforming Learning Conference, 25-27 February 2007, Amman, Jordan.
- Towards Better Skills Education, A Major International Conference, Landmark Amman Hotel & Conference Center,, Amman, Jordan, 14-15 December.

UNESCO

- "UNISCO Forum on Higher Education, Research and Knowledge", 29 November – 1 December 2006, Paris, France.
- UNISCO - PEACE Steering Committee Meeting, 30 November 2006, Paris, France.

- UNISCO - PEACE, "International Conference on Research Development in Palestinian Universities", 4-5/ November 2007, Paris, France
- IIEP/UNESCO Distance Course on EQA, 6/10 -23/12/2008

ALESCO

- Quality Assurance in Education, 28/4 – 2/5/2007, Jeddah, K.S.A
- "Quality of Higher Education in Arab Countries" 30 October 2007, Dubai, U.A.E

World Bank

- World Bank Regional conference on launching of the MENA "Flagship Report on Education: The Road Not Traveled", February 4-5, 2008, Amman, Jordan
- "Self assessment and Strategic Planning", 13-15 May, 2007, Ramallah, Palestine

TEMPUS

- "Tempus Conference on quality enhancement in higher education" 7&8 May 2008, Cairo, Egypt
- "ALTAIR Project" workshop 5-11/7/2009 Alicante - Spain

ANQAHE

- "Quality Assurance in Higher Education In Arab Countries" 2-4 November 2008, Cairo, Egypt
- "Institutional Core Standards", 27 & 28 December 2008, Amman, Jordan

AMIDEAST/USAID

- "Institutional Self-Study and other Modes of Institutional Evaluation ", 3-5 June, 2008, Ramallah, Palestine

INQAAHE

- "INQAAHE Biennial Conference", 30 march- 2 April, 2009, Abu Dhabi, U.A.E

ANQAHE/ DAAD

- "Improving the Management of Quality Assurance in the Arab Region, Agencies and Universities working together". A Regional Learning Seminar of ANQAHE and DAAD, Cairo 17&18/10/2009.

Malaysian Qualification Agency

- "The Round Table Meeting of Quality Assurance Agencies of the Organization of Islamic Conference Member Countries, 13-15 November 2009, Kuala Lumpur, Malaysia"

Other achievements

- Several workshops as trainer for peer reviewers, self assessment & strategic planning.
- Establishing a draft of AQAC Bylaws.
- Establishing a draft Bylaws for Private HEIs in Palestine
- Revising the application forms for licensing and accreditation of Institutions and Academic programs
- Revising the guidelines for EQA procedure and site visits
- Guidelines for recognition of foreign HEIs.
- Establishing a draft Bylaw of open and distance learning in higher education

Scholarships and Awards

- Amideast, 1980 -1984.
- DAAD, 1990 at the Biology Department, University of Belfield, Germany.
- The Palestinian Council of Higher Education Prize in Chemistry, 1994.
- The Scientific Foundation of H. Hijjawi Prize for Applied Sciences (Jordan), 1999.

Languages

English (proficient), Arabic (mother tongue), French (reading only)

Computer Skills

Good experience in MS word, excel and power point beside internet skills.

Other Interests: Literature, current events, swimming.

Names of Referees

To be given upon request.