

MUFIDA BEN YOUNES

EDUCATIONAL QUALIFICATIONS

- Ph.D.** 1995-2001 Department of Chemistry, Carleton University,
Ottawa, Ontario, Canada
Thesis: *Studies on the Mechanism of Analyte Vaporization and Atomization by Electrothermal Vaporization Inductively Coupled Plasma Mass Spectrometry.*
- M.Sc.** 1982-1984 Department of Chemistry, University of Birmingham,
Birmingham, UK
Thesis: *An Experimental Critique of the Polarographic Catalytic Hydrogen Wave in Molybdate Solution.*
- B.Sc.** 1974-1978 Department of Chemistry, Tripoli University,
Tripoli, Libya

RESEARCH EXPERIENCE

- Developed an in-depth understanding of mechanisms of vaporization and atomization of some elements in geological materials using Electrothermal Vaporization Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
- Mastered techniques in Trace Analysis, Inductively Coupled Plasma Mass Spectrometry, Inductively Coupled Plasma Atomic Emission Spectrometry, Graphite Furnace Atomic Absorption Spectrometry, Polarography.
- Investigated the potential of Dynamic Reaction Cell coupled with Inductively Coupled Plasma Mass Spectrometry for removal of polyatomic ion interferences.

RELEVANT WORK AND TEACHING EXPERIENCE

- 2018-up to date** Full Professor, Department of Chemistry, Tripoli University
- 2014-2018** Associate Professor, Department of Chemistry, Tripoli University
- 2009-2014** Assistant Professor, Department of Chemistry, Tripoli University
- 2003-2009** Lecturer, Department of Chemistry, Tripoli University
- 2002-2003** Visiting Fellowship, Natural Resources Canada, Geological Survey of Canada
- 1989-1995** Lecturer, Department of Chemistry, Tripoli University
- 1985-1989** Assistant Lecturer, Department of Chemistry, Tripoli University
- 1979-1982** Teacher Assistant, Department of Chemistry, Tripoli University

RESEARCH PUBLICATIONS AND PRESENTATIONS (List attached)

Referred Journal Papers: 17

Conference Presentations: 6

LIST OF PUBLICATIONS

1. Ramadan Mohamed Elmehdawi, Mohamed Nasir EL-Kaheli, Ramadan Gamodi Abuhmaiera, Fathia Ali Treish, **Mufida El Mabruk Ben Younes**, Carla Bazzicalupi, Annalisa Guerri, Andrea Caneschi, and Asma Amjad. Synthesis, Crystal Structure, and

Magnetic Properties of a New Mixed Metal (Co(II), Ni(II)) Cubane. *Materials*, **10**, 178; doi:10.3390/ma10020178, 1(2017).

2. Mohamed N. EL-Kaheli, Ramadan G. Abuhmaiera, Fathia A. Treish, **Mufida M. Ben Younes**, Ramadan M. Elmehdawi, Annalisa Guerri, Andrea Caneschi and Carla Bazzicalupi. Synthesis and Crystal Structure of Binuclear and Pentanuclear Nickel(II) Complexes Containing 4-(salicylaldiminato)antipyrine Schiff base. *Mediterranean Journal of Chemistry* **4(6)**, 282(2015).
3. R. G. Abuhmaiera, R.M. El-mehdawi, **M.M. Ben Younes**, F. A. Treish, M.N. El-kaheli, Jorg Daniels, Johannes Beck. A new two-dimensional coordination polymer: Poly[[bis (μ -chlorido) tris (μ - iso-nicotinate- κ^4 N:N':O,O') copper(II)] tris (μ -iso-nicotinate- κ^3 O:N:O) (diaqua) copper(II)]. *Medical Science, Vol. 4, Issue-6, ISSN No 2277-8160, 400(2015)*.
4. R.G. Abuhmaiera, Ramadan M. El-Mehdawi, F.A. Treish, **M.M. Ben Younes**, Dejan Poleti, Jelena Rogan. Catena-[bis(o-aminobenzoato- κ^3 ,O:O')Mn(II)]. *Arabian Journal of Chemistry* **13** (2015).
5. R.M. EL-MEHDAMI, A.N. ELDEWIK, F.M. TREISH, **M.A. BEN YOUNES**, R.G. ABUHMAIERA, M.N. EL-KAHELI and N.A. REHAB. Solvent Effect on The Structures of Co(II) Schiff Base Complexes Derived From 4-Aminoantipyrine and 2-Hydroxybenzaldehyde (L^1H) and 2,4-Dihydroxybenzaldehyde (L^2H). *Journal of Applied Chemical Science International*, **2(3)**, 129(2015).
6. M.N. EL-Kahel, R. G. Abuhmaiera, F.A. Treish, **M. M. Ben Yunes**, S. Grahmanally, R.M. Elmehdawi, A. Guerri, C. Bazzicalupi. Catena- Poly [[2,2-bipyridine- κ^2 N1,N1') Mn(II)]- μ -oxalato κ^4 O¹,O^{1'}: O²,O^{2'}] a zigzag coordination polymer. *Medical Science, Vol.4, Issue-7, ISSN No 2277 – 8160, 35(2015)*.
7. Ramadan M. El-mehdawi, Abdussalam N. EL-dewik, **Mufida M. Ben-Younes**, Fathia A. Treish, Ramadan G. Abuhmaiera, Dejan Poleti, and Jelena Rogan. Synthesis,

Characterization, and Crystal Structure of $[\text{Co}_4(\text{CH}_3\text{CO}_2)_2\text{L}_4]_2[\text{BPh}_4]_4 \cdot 0.5\text{H}_2\text{O}$, Where HL = 4-(Salicylaldiminato)antipyrine. *Journal of Crystallography Vol. 2014, 1(2014)*.

8. Mohamed N. EL-Kaheli, Ramadan M. El-mehdawi, Ramadan G. Abuhmaiera, **Mufida M. Ben-Younes**, Fathia A. Treish, Annalisa Guerri and Carla Bazzicalupi. Poly[[$(\mu_4\text{-benzene-1,3,5-tricarboxylato-}\kappa^4\text{O}^1:\text{O}^1:\text{O}^2:\text{O}^3)\text{bis-(2,2-bipyridine-}\kappa^2\text{N,N}^1)(\mu_2\text{-hydroxido) dicopper(II)}$] trihydrate]. *Acta Cryst. E70. m270-m271, (2014)*.
9. R.M. El-mehdawi, N.M. AL-Gozze, **M.M. Ben Younes**, F.A. Treish, S.G. Alsabri, Jörg Daniels and Johannes Beck. Facile Route for the Synthesis and Characterization of $[(\mu\text{-H})(\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2)\text{Mo}_2(\text{CO})_8]^-$ and $[(\mu\text{-H})(\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2)_2\text{Mo}_2(\text{CO})_6]^-$ - Anions, and the Crystal Structure of $[\text{Et}_4\text{N}][(\mu\text{-H})(\mu\text{-Ph}_2\text{PCH}_2\text{PPh}_2)_2\text{Mo}_2(\text{CO})_6]$. *Jordan Journal of Chemistry Vol. 8 No.4, 262 (2013)*.
10. Ramadan M. El-mehdawi, Abdussalam N. EL-dewik, Khaled M. Kreddan, Fathia A. Treish, **Mufida M. Ben Younes**, Abtisam A. Aboushagour and Zinab A. Elkamoshi. Synthesis and Characterization of Oxy-Vanadium (IV) Complex of 4-(2,4-dihydroxybenzaldimine) Antipyrine. *Journal of Chemistry and Chemical Engineering, Vol. 4 No 11, 49 (2010)*.
11. R. M. El-Mehdawi, M.Y. Darensbourg, A.N. E-ldewik, F.A. Treish, **M.E. Ben Younes**. Solvo-thermal application for the synthesis of $[\text{Et}_4\text{N}][(\mu\text{-H})\text{Mo}_2(\text{CO})_{10}]$ and bidentate phosphine derivatives and the x-ray structure of $(\mu\text{-Ph}_2\text{P}(\text{CH}_2)_2\text{PPh}_2)[\text{Mo}(\text{CO})_4(\text{NCCH}_3)]_2$. *Jordan Journal of Chemistry Vol. 4 No.3, 243 (2009)*.
12. Dr. R. M. El-Mehdawi, Dr. A.N. E-ldewik, K.M. Kreddan., F.A. Treish, A.M. Naghmush, Hend ben Hussien, **M.E. Ben Younes** and S.H. Abu-Agrab. Synthesis and characterization of unsymmetrical tridentate Schiff base complex of Ni(II) acetate. *University Bulletin – Issue No. 10-2008*.

13. **M.E. Ben Younes**, D.C. Grégoire and C.L. Chakrabarti, Effectiveness of ammonia in reducing carbon-based polyatomic ion interferences in electrothermal vaporization collision cell inductively coupled plasma mass spectrometry. *Spectrochim. Acta.* **58 B**, 361 (2003).
14. Sekaly, A.L.R., J. Murimboh, N.M. Hassan, R. Mandal, **M.E. Ben Younes**, C.L. Chakrabarti, M.H. Back and D.C. Grégoire. Kinetic Speciation of Co(II), Ni(II), Cu(II), and Zn(II) in model solutions and freshwaters: lability and the d electron configuration. *Environ. Sci. Technol.* **37**, 68 (2003).
15. **M. E. Ben Younes**, D. Conrad Grégoire and Chuni L. Chakrabarti, Vaporization and removal of silica for the direct analysis of geological materials by slurry sampling electrothermal vaporization-inductively coupled plasma-mass spectrometry. *J. Anal. At. Spectrom.*, **14**, 1703 (1999).
16. J.P. Byrne, R.St.C. McIntyre, **M.E. Ben Younes**, D.C. Grégoire and C.L. Chakrabarti, Determination of chromium by electrothermal vaporization inductively coupled plasma mass spectrometry. *Can. J. Anal. Sci. Spectrosc.*, **42**, 95 (1997).
17. J.P. Byrne, D.C. Grégoire, **M.E. Ben Younes** and C.L. Chakrabarti, Vaporization and atomization of the platinum group elements in the graphite furnace investigated by electrothermal vaporization-inductively coupled plasma-mass spectrometry. *Spectrochim. Acta.* **52 B**, 1575 (1997).

Conference Presentations

1. **M.E. Ben Younes**, D. Conrad Grégoire and Chuni L. Chakrabarti. Vaporization and removal of silica for the direct analysis of geological materials by slurry sampling electrothermal vaporization inductively coupled plasma-mass spectrometry. 46th International Conference on Analytical Sciences and Spectroscopy (ICASS), Winnipeg, MB, August, 2000.
2. **M.E. Ben Younes**, D. Conrad Grégoire and Chuni L. Chakrabarti. Vaporization and removal of silica for the direct analysis of geological materials by slurry sampling

electrothermal vaporization-inductively coupled plasma-mass spectrometry. 26th Annual conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS)/45th International Conference on Analytical Sciences and Spectroscopy (ICASS), Vancouver, BC, October, 1999.

3. J.P. Byrne, D.C. Grégoire, **M.E. Ben Younes** and C.L. Chakrabarti, Vaporization and atomization of the platinum group elements in the graphite furnace investigated by electrothermal vaporization inductively coupled plasma-mass spectrometry, 44th International Conference on Analytical Sciences and Spectroscopy (ICASS), Kingston, ON, Canada, August, 1998.
4. J.P. Byrne, R.St.C. McIntyre, **M.E. Ben Younes**, D.C. Grégoire and C.L. Chakrabarti, Determination of chromium by electrothermal vaporization inductively coupled plasma mass spectrometry, 44th International Conference on Analytical Sciences and Spectroscopy (ICASS), Kingston, ON, Canada, August, 1998.
5. J.P. Byrne, D.C. Grégoire, **M.E. Ben Younes** and C.L. Chakrabarti, Investigation of the Mechanism of Vaporization of the Platinum Group Elements in ETV-ICP-MS, Proceedings of Enviroanalysis Conference, May, 1998, edited by R. Clement and R. Burk. Ottawa, Ontario, Canada, pp. 521-528.
6. J.P. Byrne, D.C. Grégoire, **M.E. Ben Younes** and C.L. Chakrabarti, Vaporization and atomization of the platinum group elements in the graphite furnace investigated by electrothermal vaporization-inductively coupled plasma-mass spectrometry, 43rd International Conference on Analytical Sciences and Spectroscopy (ICASS), Montreal, QC, Canada, August, 1997.