Personal data

Name: Hassan Ibrahim A. Nimir
Date of Birth: 1st Jan 1965
Nationality: Sudanese
Marital Status: Married- 5 children
Languages: Arabic and English
D. Licence: EU Driving Licence

Contact

Permanent Address: University of Khartoum, Faculty of Science,
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Present Address: Royal College of Surgeon's in Ireland,
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Personal Profile

High calibre self-motivated and energetic Inorganic Chemist with 20 years experience in teaching Chemistry in different institutions worldwide. I have particular interest on teaching Inorganic and biological Chemistry as well as an enthusiastic and professional Chemistry researcher. I have proven supervisory skills; can work as part of a team or using my own initiative with excellent organizational and coordinating skill

Education

- 1984 -1989 University of Khartoum, Faculty Science, Dept. of Chemistry/ Sudan
- Nov. 1989 Degree: B.Sc (Honours), First Class
- 1994 – 1997 University of Khartoum, Faculty Science, Dept. of Chemistry/ Sudan
  University College of Dublin, School of Chemistry,
  Centre for synthesis and Chemical Biology, CSCB, Dublin/ Ireland
- Sept. 1997 Degree: M.Sc. in Inorganic Chemistry
  Thesis: Complexes of Arsenic(III) Amides with the Halides of Group IB metals
  Supervisor: Professor Yassin O. A. Elnigumi
- 1997 – 2000 University College of Dublin, School of Chemistry,
  Centre for synthesis and Chemical Biology, CSCB, Dublin/ Ireland

- Spring 2001 Degree: PhD. Bioinorganic Chemistry
  Thesis: Dinuclear metal complexes as models for hydrolases and their reactions with hydroxamic acid inhibitors.
  Supervisor: Professor David A. Brown

Research Interests

1. Study of the spectroscopy and Coordination Chemistry of the first row transition metal (Mn, Fe,
   Ni, Co and Zn).
2. Syntheses of Hydroxamic acids and related organic molecules as bioligands, chelation therapy
   agents and inhibitors for enzymes.
3. Bioinorganic and Biological Chemistry
   Metal-DNA interaction: complexes as anti-tumor agents.
   Metal complexes as MRI contrast agents.
   Developing biomimetic models to obtain a better understanding of two features of hydrolyse
   enzymes: a) their catalytic behavior and mechanism and b) their inhibition by hydroxamic acids

Teaching Experience

- 2009 to date Royal College of Surgeon's In Ireland, Dublin / Ireland
- 1990 to date University of Khartoum, Faculty Science, Dept. of Chemistry, Khartoum/ Sudan
- 1997 to 2002 University College of Dublin, School of Chemistry, Dublin / Ireland
- 2001 to 2002 St. Catherine's College of Education/ Trinity College Dublin / Ireland

Working Experiences

March 2009 to date
Royal College of Surgeon's In Ireland, Dublin / Ireland
Position: Visiting Professor
Duties: Teaching

Foundation Year
Course title: Introduction to General, Medicinal and pharmaceutical Chemistry
(Introductory Chemistry; Chemical Accounts and Redox Reactions; Chemical Bonding & shapes
of Molecules; Coordination Chemistry, Chelating agents & Chelates, Wilson's disease, Iron Chelation Therapy, Rheumatoid Arthritis; platinum-Based Drugs as Anti-Cancer Chemotherapeutics, High and Low Spin Complexes, Cytochromes c and cytochrome P-450; Introduction to Organic Chemistry, Alkanes; Chirality – Molecules in 3 Dimensions; Alkyl

Halides
& Substitution Reaction)

Duties: Research

Title: Synthesis and Characterization of Metal – Based anticancer Drugs.
Abstract:
DNA in eukaryotic cells is tightly complexed with histone proteins to form chromatin. Histones deacetylases (HDACs) are enzymes involved in the remodelling of chromatin and play a key role in the epigenetic regulation of gene expression. They catalyse the removal of acetyl groups from the lysine residue of core histones and other proteins that control cellular functions such as proliferation, migration, differentiation and cell death.
Therefore, inhibition of HDACs represents an actual therapeutic approach to discover new targeted anticancer agents
In this work we are, developing a series of HDACi as novel approach to the treatment of cancer, through the synthesis of sulphonamide derivative containing carboxylate/hydroxamate moieties with dual action as cis-platin analogue and Inhibitor of histone Deacetylase.

December 2003 – To date
University of Khartoum, Faculty Science, Dept. of Chemistry, Khartoum/ Sudan
Position: Assistant / Associate Professor, Head of Department
Duties: Teaching, Administration and Research
Courses taught:

1. General Chemistry-1st year Science
2. General Chemistry-foundation year (Medical/Pharmacy and Dentistry students)
3. Basic Inorganic Chemistry – 2nd year Science
4. The Thermodynamic of Inorganic Solid state Systems 3rd year Science
5. Introduction to Transition Metal chemistry I and II – 3rd year Science
6. Coordination Chemistry and Magnetism – 4th year Science
7. The chemistry of 2nd and 3rd row Transition metals – 4th year Science
8. The Chemistry of halogen, Inter-halogen and the Noble gases 4th year BSc part I Science
9. Application of spectroscopic methods of Analysis in Inorganic Chemistry BSc part I Science
10. Introduction to Bioinorganic Chemistry: BSc (Honours) Part II Science and high-diploma in Chemistry
11. Introduction to Medicinal Inorganic Chemistry – BSc (Honours) part II Science and MSc by course

Research

We are currently working to fulfill the objectives of three research project in my group. The title of these
projects is:

Project 1:
Synthesis and characterization of hydroxamate/carboxylate – based Lanthanide complexes as MRI
contrast agents
Project 2:
Thiosemicarbazone complexes of Pt/Pd as antitumor agents
Project 3:
Structural and magnetic studies of metal-hydroxamates as model for inhibited metallohydrolases and their Biomimetic Chemistry

October 2002 –November 2003
Queen University, School of Chemistry, Belfast / UK
Position: Synthetic Chemist
Duties: Synthesis and applications of Ionic liquids
October 2001 – September 2002
University College of Dublin, School of Chemistry, Dublin / Ireland
Position: Post Doctoral research Fellow
Duties: Researcher
Courses: Biomimetic Chemistry of Hydrolase enzymes and their inhibition
September 2001 – April 2002
St. Catherine's College of Education/ Trinity College Dublin / Ireland
Position: Part-time Lecturer
Duties: Teaching
Courses: Basic Science and General Chemistry

November 2000 – October 2001
University College of Dublin, School of Chemistry, Dublin / Ireland
Position: Postgraduate Lab. Supervisor
Duties: Administrative and Research in Inorganic Chemistry research laboratory
September 1997 – October 2000
University College of Dublin, School of Chemistry, Dublin / Ireland
Royal College of Surgeon's In Ireland, Dublin / Ireland
Position: PhD candidate
Duties: Tutor, Instructor and Researcher
Courses: Tutor, Instructor of Inorganic Practical Classes for foundation year and BSc honours
January 1990 – August 1997
University of Khartoum, Faculty Science, Dept. of Chemistry, Khartoum/ Sudan
Position: Teaching Assistant
Duties: Teaching
Courses: Tutor and Instructor of the following:

1. General Chemistry practical classes for preliminary year
2. Qualitative Determination of Cations and Anions in mixture samples by spot test method 2nd year Science
3. Inorganic practical for 3rd year Science classes
4. Inorganic practical for 4th year Science classes

Publications

List of publications published, or accepted for publication, in refereed journals during the past ten
years:

1. Hassan Nimir, Enas Salah, Synthesis and characterization of some iron vitamins supplements, SJBS (C), accepted, 04, 2009.
2. Ahmed Z. Eltayeb; Hassan I. Nimir; David A. Brown; Yanhua Lan; Christopher E. Anson and Annie K. Powell , "Magnetic and Structural Studies of Novel Tetranickel Hydroxamates" Inorganica Chimica Acta, submitted, Sept. 2009.
3. Hassan Nimir, D. A. Brown, William K. Glass, NMR study of dicobalt (III) complexes SJBS (C), 2005, 7: 171-183.
4. Hassan Nimir, D. A. Brown, W. Errington, N. Fitzpatrick, W. Haase, T. Kemp and R. Werner, Hetero-dinuclear metal complexes as models for hydrolases and their inhibition, SJBS (C), 2005, 7: 39-40.
5. D. A. Brown, W. K. Glass, N. J. Fitzpatrick, T. J. Kemp, W. Errington, H.Müller-Bunz, A. J. Hussein, and H. Nimir, "Mononuclear and Dinuclear Model Hydrolases of Nickel and Cobalt",Inorganica Chimica Acta, 2005,358, 2755-2762.
6. Jender, S. B.; Schwöppe, H.; Nimir, H.; Rompel, A.; Brown, D. A.; Krebs, B. " Ni(II) complexes asmodels for inhibited urease" Inorganica Chimica Acta. 2002, 340, 181-186.
7. David A. Brown, William Errington, Noel J. Fitzpatrick, William, K. Glass, Terence J.Kemp, Hassan Nimir and Áine T. Ryan, "A novel dizinc bridged hydroxamate model for
hydroxamate inhibited zinc hydrolases, J. Chem. Soc., Chem. Commun., 2002, 1210-1211
8. Mahdy, A.H.; Brown, D.A.; Glass W.K.; Fitzpatrick N.J.; Nimir H.; Kemp T.J.; Clarkson," Structural variations in dinuclear metal complexes as model hydrolases" :, Journal ofInorganic Biochemistry, 2003, 96, 1, 185
9. David A. Brown; Errington, W.; Glass, W. K.; Haase, W.; Kemp, T. J.; Nimir, H.; Ostrovsky, S. M.; and Werner, R. "Magnetic, Spectroscopic, and Structural Studies of Dicobalt Hydroxamates And Model Hydrolases" Inorg. Chem. 2001, 40, 5962-5971.
10. David A. Brown, Laurence P. Cuffe, Oliver Deeg, William Errington, Noel J. Fitzpatrick, William K. Glass, Kara Herlihy, Terence J. Kemp and Hassan Nimir "Novel elimination of hydroxylamine and formation of a nickel tetramer on reaction of glutarodihydroxamic acid
with model dinickel hydrolases", J. Chem. Soc., Chem. Commun., 1998, 2433-2434.
11. Arnold, M.; David A. Brown; Deeg, O.; Errington, W.; Haase, W.; Herlihy, K.; Kemp, T. J.; Nimir, H. and Werner, R. "Hydroxamate-bridged dinuclear nickel complexes as models for urease inhibition" Inorg. Chem. 1998, 37, 2920-2928.

Training courses:

Summary of training courses attended:

1. Methodology of teaching U of K, Faculty of Education, 1991-Khartoum.
2. Safety and handling of cryogenic gases UCD, August 2001.
3. Bellstien database search engine, TCD, July 2002.

4. ODL Open and distance learning, OUS, Sept.2005.
5. Learning developer, OUS-UNISA, March 2006.
6. Lab safety course, RCSI, August 2009.
7. Lab Risk Assessment, RCSI, August, 2009.
8. Drug Design & Delivery, RCSI, Oct. 2009.

Papers presented at conferences:
1. Models for hydrolases and their inhibition, The 8th Irish Inorganic Chemistry Conference, NUI, Maynooth, Ireland. May 1999.
2. Dinuclear metal complexes as model for Ureases and their reactions with inhibitors, The 52nd Irish postgraduate colloquium, UCC, Ireland. May 2000.
3. Magnetic and Structural studies of cobalt hydroxamates, the 34th International coordination Chemistry Conference- ICCC-34- University of Edinburgh. July 2000.
4. Inhibited Urease Models, the 5th meeting of COST D21, University of South Paris. March 2002.
5. The Chemistry and Biology of Urease, Conway Institute of Biomolecular and Biomedical Sciences, Dublin. March 2005.
6. Ru-complexes as anticancer agents the 611st Irish postgraduate colloquium DIT-Ireland. June 2009.
7. New pt-complexes as anticancer agents, group of medicinal chemists of the Atlantic arc-GP2A,
TCD, Ireland. Sept. 2009,

Merits and Awards:

1. University of Khartoum prize 1989
2. UNESCO Scholarship 1997
3. Open postgraduate Scholarship 1999
4. Third world academy of Science prize, 2004

Referees:
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