CURRICULUM VITAE

Dr. Abubakr Mustafa Idris

I. Personal Data

Name: Abubakr Mustafa Idris

Academic Degrees: B.Sc, M.Sc., Ph.D., MRSC

Academic Rank: Assist. Prof. (Analytical Chemistry)

Languages: Arabic & English

Nationality: Sudanese

Marital Status: Married (British Wife)

Date & Place of Birth: 19 October 1971, Khartoum, Sudan

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II. Academic Qualifications

1. Ph.D. in Pharmaceutical Chemistry (Analytical), University of Khartoum, Khartoum, Sudan, 10 October 2005.
2. M.Sc. in Chemistry (Analytical), University of Khartoum, Khartoum, Sudan, 23 September 1999.
3. B.Sc. in Chemistry and Geology, Faculty of Science, University of Khartoum, Khartoum, Sudan, 27 December 1994.

III. Professional Affiliations

1. Active member of the Royal Society of Chemistry, U.K. in the category of a "Member" and authorized to use Designatory Letters, MRSC.
2. Active member of the American Chemical Society, U.S. in the category of a "Regular".

IV. Academic Recognitions

1. Recipient of the second prize of “Publishing in the 10% Top Journals in Related fields”, King Abdalaziz City for Science and technology, Riyadh, Saudi Arabia, February 2010.
2. Recipient of the prize of “Publishing in High Impact Factor Journals”, King Faisal University, June 2009.
3. The overall performance in teaching, research and activities, as rated by the College of Science at King Faisal University, was Distinguished for all working years.

V. Area of Specializations

1. General Analytical Chemistry
2. Pharmaceutical, pharmacological, Forensic Analytical Chemistry
3. Environmental Analytical Chemistry

VI. Impact

1. Developing microfluidic analytical techniques and methodologies for automated on-line analysis.
2. Optimizing analytical methods by chemometrics and kinetics.
3. Monitoring and assessing chemical pollutants in the environment by geochemical and multivariate statistical analysis approaches.

VII. Full-time Professional Activity; Technical and Teaching Experiences

1. 2005 to date: Full-time Lecturer at the Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.
2. 2004- to date: Research laboratory supervisor at the Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.
3. 2004-2005: Full-time lecturer at the Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.
4. 2000-2001: Full-time lecturer at the Department of Chemistry, Faculty of Science, Omdurman Islamic University, Omdurman, Sudan.
5. 1995-2000: Part-time teaching assistant at the Department of Chemistry, Faculty of Science, University of Khartoum, Khartoum, Sudan.

Have a total teaching experience of fifteen years at a university level, 1994-2008. During that period, teaching undergraduate level laboratories and lecture courses comprising general chemistry and analytical chemistry including the following courses:

1. Instrumental Chemical Analysis (Theory) (Including Spectroscopy, Chromatography and Electrochemical analysis) (Chem 342)
2. Instrumental Chemical Analysis (Practical) (Including Spectroscopy, Chromatography and Electrochemical analysis) (Chem 443)
3. Analytical Chemistry (Volumetric and Gravimetric) (Chem 241)
4. Application of Computer to Chemistry (Chem 372)
5. General Chemistry (Chem 101)

Have participated in constructing the syllabi of Analytical Chemistry at the Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.

Have edited and updated laboratory manuals of the following practical courses, they are currently being taught:

1. "Instrumental Chemical Analysis" taught at the colleges of: (i) Science, (ii) Agriculture and Food Science and (iii) Education at King Faisal University, Hofuf, Saudi Arabia.
2. "Analytical Chemistry" taught at the colleges of: (i) Science, (ii) Agriculture and Food Science and (iii) Education at King Faisal University, Hofuf, Saudi Arabia.
3. "General Chemistry" taught at the colleges of: (i) Science, (ii) Agriculture and Food Science and (iii) Education at King Faisal University, Hofuf, Saudi Arabia.

VIII. Additional Professional Activities

1. An institutional member of the committee of Accreditation and Quality Assurance for standard number 3 entitled “Management of Quality Assurance and Improvement”, King Faisal University, Hofuf, Saudi Arabia, June 2010 - November 2011.
2. A departmental member of the committee of Accreditation and Quality Assurance for standard number 10 entitled "Research", Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.
3. A departmental member of the sub-committee for instructing the Plan of MSc (Chemistry) taught at the Department of Chemistry, College of Science, King Faisal University, Saudi Arabia.

IX. Research Projects

Has contributed in the following research projects:

1. Co-Investigator of a research project entitled "Heavy metals contamination in the environment of the datepalm farms in Al-Ahssa Oasis, Saudi Arabia", funded by the Deanship of Scientific Research, King Faisal University, 15 Jun. 2003-14 Jun. 2005, Award # 4007, 230,600 SR.
2. Co-Investigator of a research project entitled "Adoption of novel methods for the assay of some drugs in pharmaceutical formulations utilizing sequential injection analysis technique", funded by the Deanship of Scientific Research, King Faisal University, 12 Mar. 2006-11 Mar. 2007, Award # 7049, 161,200.
3. Co-Investigator of a research project entitled "Exploitation of capillary electrophoresis technique with fluorescence detection for exploring selective, sensitive and cost-effective methods for some abuse drugs analysis", funded by the Deanship of Scientific Research, King Faisal University; 1 Apr. 2006- 31 Mar. 2008, Award # 7032, 198,200.
4. Co-Investigator of a research project entitled "A study on the quality of the groundwater in Al-Ahssa Oasis, Saudi Arabia", currently being funded by King Abdulaziz City for Science and Technology, 01 Apr. 2006-1 June 2009, Award # AT-25-32, 451,600 SR.
5. Co-Investigator of a research project entitled "Ddevelopment of microfluidic devices and adoption of novel methods for abused drugs" is currently being funded by King Abdulaziz City for Science and Technology under The Second Development

Research Fund Program, -22 Dec. 2006- 21 Dec. 2008, Award # MT-1-2, budget 441,800 SR.

6. Co-Investigator of a research project entitled "Development of some methods for explosive analysis by capillary electrophoresis", Award # 90074, budget 192,800 SR, 18 February 2008 - 17 February 2008, funded by the Deanship of Scientific Research, King Faisal University.
7. Co-Investigator of a research project entitled "Analytical study on certain drugs using new stability indicating methods". Award No. 7039, 64,400 SR, 7 Jan. 2008- 6 January 2009, funded by the Deanship of Scientific Research, King Faisal University.
8. Principal Investigator of a research project entitled "Development of sequential injection chromatography, the state-of-the-art microfluidic separation technology". Award No. MT-3-6, 635,000 SR., from 29 Nov. 2008 to 28 Nov. 2010, funded by King Abdulaziz City for Science and Technology under The Third Development Research Fund Program, Advanced Techniques Division.
9. Principal Investigator of a research project entitled "Developing inexpensive analytical methods for pharmaceuticals employing sequential injection chromatography". Award No. 10090, 198,800 SR, 12 April 2009-11 April 2011, funded by the Deanship of Scientific Research, King Faisal University.
10. Co-Investigator of a research project entitled "Developing microchip electrophoresis technology and applications to drug analysis". Award No. 11,
11. Co-Investigator of a research project entitled "Developing New High Performance Liquid Chromatography Methods for Analyzing New Pharmaceutical Formulations", Award No.
12. Co-Investigator of a research project entitled “Developing microchip electrophoresis biotechnology and its application to drugs of abuse analysis”. Recently accepted from King Abdulaziz City for Science and Technology under the Advanced and Strategic Technologies Program, expected to be started on 3 March 2011 and end on 2 March 2013.

X Theses Supervised

1. “Spectrophotometric and Differential Electrolytic Potentiometric Methods as an Assay for some Pharmaceuticals utilizing sequential injection analysis”, MSc (Pharmacy), student name: Atta-Elmanan Eldaw Ibrahim, graduated in November, 2008 at University of Khartoum, Khartoum, Sudan.

2. “Chemometric optimization of sequential injection analysis methods for some analgesic and anti-inflammatory drugs in pharmaceuticals”, MSc (Chemistry), student name: Salih Ali Naheed, still doing his research work, registered in July 2008 at Sudan Academy of Science, Khartoum, Sudan.
3. “Sequential injection chromatography for validating some ophthalmic formulation assay methods”, MSc (Chemistry), Student name: Omer A.A. Babatout, still doing his research work, registered in July 2008 at Faculty of Science, Islamic University of Omdurman, Omdurman, Sudan.
4. "Developing Some Drug Assay Methods Utilizing Sequential Injection Analysis and Sequential Injection Chromatography Techniques", PhD (Chemistry), Student name: Rafea Alamin Elgack Elgorashe, registered in December 2009 at Faculty of Science, Sudan University for Science and Technology, Khartoum, Sudan.

XI. Work Evaluated:

1. Refereed many papers for the following journals:
    i. Analytica Chimica Acta
    ii. Talanta
    iii. Journal of Chromatography B
    iv. Analytical Chemistry Insights
    v. International Journal of Environmental Analytical Chemistry
    vi. Journal of AOAC International
    vii. CLEAN – Soil, Air, Water
    viii. Journal of Environmental Management.
2. Examined an M.Sc. student at the Sudan Academy of Science, Khartoum, Sudan, August 2008, the work entitled “Monitoring and assessing trace element contents in groundwater in Southern Kordofan State, Sudan.
3. Evaluate many research projects submitted to King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia.

XII. Research Publications

M.Sc. Thesis

Abubakr M. Idris, entitled "An investigation of some heavy metals and radionuclides in sediments along the Sudanese Coast of the Red Sea", University of Khartoum, Khartoum, Sudan, 1999.

Ph.D. Thesis

Abubakr M. Idris, entitled "Sequential injection analysis for pharmaceuticals with kinetic and Chemometric approaches", University of Khartoum, Khartoum, Sudan, 2005.

Papers Published in International Refereed Journals

1. **Abubakr M. Idris**, Rafea E.E. Elgorashe, Ahmed O. Alnajjar, Developing new method for quantifying pindolol by sequential injection analysis, Journal of Analytical Chemistry, In press, 2011.
2. **Abubakr M. Idris,** Flow injection: overlooked techniques in forensic analysis, Critical Reviews in Analytical Chemistry, 40(4) (2010) 218-225.
3. **Abubakr M. Idris,** Overview of generations and recent versions of flow injection techniques, Critical Reviews in Analytical Chemistry, 40(3) (2010) 150-158.
4. **Abubakr M. Idris,** Factorial design and Response surface optimization of a spectrophotometric sequential injection analysis of olanzapine, Journal of Analytical Chemistry, 65(1) (2010) 36-42.
5. **Abubakr M. Idris**, Ahmed O. Alnajjar, Exploiting sequential injection analysis to automate on-line sample treatment and quantitative determination of morphine in human urine, Talanta 77(2) (2008) 522-526.
6. **Abubakr M. Idris**, Combining multivariate statistical analysis and geochemical approaches for the assessment of the level of heavy metals in sediments from Sudanese harbors along the Red Sea Coast, Microchemical Journal 90(2) (2008) 159-163.
7. **Abubakr M. Idris**, Mohamed A.H. Al-Tayeb, Sanja S. Potgieter-Vermaak, R. Van Greken, J.H. Potgieter, Assessment of heavy metals pollution in sediments harbours along the Red Sea Coast. Microchemical Journal 87(2) (2007) 104-112.
8. **Abubakr M. Idris**. An investigation of some heavy metals and radionuclides in sediments along the Sudanese Red Sea coast. International Nuclear Information System (INIS), International Atomic Energy Agency (IAEA), Abstract of M.Sc. Thesis (1999) pp. 126.
9. Salah M. Sultan, **Abubakr M. Idris**, Kamal E. Ibrahim, Sequential injection spectrophotometric method for the assay of paracetamol in drug formulations. Journal of Flow Injection Analysis 21 (2004) 19-24.

10. Salah M. Sultan, **Abubakr M. Idris**, Kamal E. Ibrahim. Sequential injection kinetic method for the assay of aspirin in drugs formulations. Journal of Flow Injection Analysis 22 (2005) 118-122.
11. **Abubakr M. Idris**, Salah M. Sultan, Kamal E. Ibrahim, F. N. Assubaei, Sequential injection spectrophotometric kinetic method for the determination of paracetamol in dosage forms. Journal of Flow Injection Analysis 22 (2005) 123-128.
12. **Abubakr M. Idris**, Fahad N. Assubaie, Salah M. Sultan, Chemometric optimization of a SIA promethazine hydrochloride assay method. Microchemical Journal 83 (2006) 7-13.
13. Ahmed O. Alnajjar, Hamed AbuSeada, **Abubakr M. Idris**, Capillary electrophoresis for the analysis of norfloxacin and tinidazole in pharmaceuticals with multi-response optimization. Talanta 72 (2007) 842-846.
14. Ahmed Alnajjar, **Abubakr M. Idris**, Marika Multzenberg, Bruce McCord, Development of a capillary electrophoresis method for the screening of human urine for multiple drugs of abuse. Journal of Chromatography B 856 (2007) 62-67.
15. Ahmed Alnajjar, **Abubakr M. Idris**, Hamed Abu Seada, Development of a stability-indicating capillary electrophoresis method for norfloxacin and its inactive decarboxylated degradant. Microchemical Journal 87 (2007) 35-40.
16. **Abubakr M. Idris**, On-line coupling of solid-phase extraction, derivatization and spectrophotometry by sequential injection analysis: application to trifluoperazine assay in human urine. Journal of Pharmacological and Toxicological Methods, 56 (2007) 330-335.
17. **Abubakr M. Idris**, Ahmed O. Alnajjar, Multi-response optimization of a capillary electrophoresis method for the assay of vardenafil in pharmaceuticals. Acta Chromatographica 19 (2007) 97-109.
18. **Abubakr M. Idris**, Fahad N. Assubaie, Salah M. Sultan, Experimental design optimization of a sequential injection method for promazine assay in bulk and pharmaceutical formulations. Journal of Automated Methods and Management in Chemistry, 2007 (2007) article ID 32470, 7 pages.
19. **Abubakr M. Idris**, Rafea E.E. Elgorashe, Ahmed O. Alnajjar, High-throughput reagent-saving sequential injection assay method for chlorpromazine, submitted to Instrumentation Science and Technology.
20. **Abubakr M. Idris**, Screening of conditions controlling spectrophotometric sequential injection analysis using factorial design, submitted to Chemistry Central Journal.

21. **Abubakr M. Idris**, More than three decades of flow injection techniques, continuous development, submitted to Journal of Automated Methods and Management in Chemistry.
22. **Abubakr M. Idris,** Ahmed O. Alnajjar, Sequential injection and capillary electrophoresis and for sample treatment and separation of pseudoephedrine and ceitirizine in pharmaceuticals and urine samples, submitted to Chromatographia.
23. Atta E. E. Ibrahim, **Abubakr M. Idris**, Abdalla M. Abulkibash, Tawfik A. Saleh, Kamal E. E. Ibrahim, Optimization and validation of new assay method for verapamil by spectrophotometric sequential injection analysis, submitted to Journal of Food and Drug Analysis.

International Conference Papers

1. Ahmed Alnajjar, **Abubakr M. Idris**. "Microchip electrophoresis with fluorescence detection for the separation and determination of heroin metabolites", accepted as poster presentation at 35th International Symposium on High-Performance Liquid Phase Separations and Related Techniques (HPLC 2010), 19-24 June 2010, Boston, Massachusett.
2. **Abubakr M. Idris,** Ahmed O. Alnajjar, Rafea E.E. Elgorashe**, "**Experimental guidelines on developing sequential injection chromatographic methodologies**,** Orally presentation, 16th International Conference on Flow Injection Analysis, Including Related Techniques, 25-30 April 2010, Pattaya, Thailand.
3. **Abubakr M. Idris** and Ahmed O. Alnajjar, "Chemometrics, a Powerful Tool for Optimizing Flow Injection Analytical Methods", Presented at Euroanalysis Conference, 6-10 September 2009, Innsbruck, Austria.
4. Fahad N. Assubaie and **Abubakr M. Idris**, "Flow injection: cheap, portable, friendly-designable microdevices for environmental analysis, an overview", Presented at Euroanalysis Conference, 6-10 September 2009, Innsbruck, Austria.
5. Abdelraziq M. Abdelbagi, Wafa S. Abdelrahman, Mohamed A.H. Eltayeb, **Abubakr M. Idris**, "Biological and Environmental Monitoring of Occupational Exposure to Heavy Metals in Metallurgical Factories in Khartoum State, Sudan", Presented at Euroanalysis Conference, 6-10 September 2009, Innsbruck, Austria.
6. Ahmed O. Alnajjar, **Abubakr M. Idris,** Microchip electrophoresis with laser induced fluorescence detection for the separation and determination of some drugs of drugs in biological fluids", presented at the "34th International Symposium on High-

Performance Liquid Phase Separations and Related Techniques" (HPLC 2009), 28 June - 2 July, Dresden, Germany.

7. **Abubakr M. Idris**, Fahad N. Assubaie, "Chemometrics, an overlooked tool for optimizing sequential injection analysis methods", Oral presentation at the Fifteenth International Conference on Flow Injection Analysis, 28 September – 3 October, 2008, Nagoya, Japan.
8. Ahmed O. Alnajjar, **Abubakr M. Idris**, Automated sample treatment and fluorescence derivatization by sequential injection for the determination of amphetamines in biological fluids by capillary electrophoresis. Poster presentation at the BioChromatography and Nanoseparation International Symposium (SBCN), 14-16 October 2008, Montpellier, SupAgro Campus, France.
9. **Abubakr M. Idris,** Ahmed O. Alnajjar, What did and will flow injection techniques provide to pharmaceutical, pharmacological and toxicological analyses?. Poster presentation at the World Congress of Pharmacy and Pharmaceutical Sciences 2008 - 68th International Congress of FIP (International Pharmaceutical Federation), 31 August - 4 September 2008, Basel, Switzerland.
10. **Abubakr M. Idris**, Ahmed Alnajjar, Sequential injection analysis technique for on-line sample treatment and determination of total morphine in human urine. Oral presentation at the Fourteenth International Conference on Flow Injection Analysis, 3-7 September 2007, Berlin, Germany.
11. **Abubakr M. Idris**, Fahad N. Assubaie, Automation of sample preparation and determination of promethazine in human urine utilizing sequential injection analysis technique. Poster presentation at the Euroanalysis XIV Conference, 9-14 September 2007, Antwerp, Belgium.
12. **Abubakr M. Idris**, Sequential injection analysis, an unexplored technique in forensic analysis, a Review Lecture. Oral Presentation at the International Forensic Science and Forensic Medicine Conference, 12-14 November 2007, Riyadh, Saudi Arabia.
13. Salah M. Sultan, **Abubakr M. Idris,** Kamal E. Ibrahim, Sequential injection kinetic method for the assay of aspirin in drugs formulations. Oral presentation at the Thirteenth Conference of the Flow Injection Technique, L-50, 24-28 April 2005, Las Vegas, USA.
14. Salah M. Sultan, **Abubakr M. Idris,** Kamal E. Ibrahim, Fahad N. Assubaie, Sequential injection spectrophotometric kinetic method for the determination of

paracetamol in dosage forms. Oral presentation at the Thirteenth Conference of the Flow Injection Technique, L-27, 24-28 April 2005, Las Vegas, USA.

15. **Abubakr M. Idris,** Mohamed A.H. Al-Tayeb, Applications of gamma ray spectrometry and atomic absorption spectrophotometry for the determination of heavy metals in sediments along the Sudanese coast of the Red Sea. Oral presentation at the Fifth Arab Conference on the Peaceful Uses of Atomic Energy, 13-17 November, Beirut, Lebanon, 2000.