**Curriculum vitae**

**Name**: Abdelhafeez Mohammed Abdelhafeez Mohammed

**Date of birth**: 1961

**Place of birth**: Dongola, Sudan.

**Position:** Associate Professor, Department of Chemistry, Alzaiem Alazhari University, PO Box 1432, Khartoum North, 13311, Sudan.

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**Research interests:**

Natural products chemistry, Organic synthesis, Organometallic chemistry, Medicinal chemistry, Natural products and Nanotechnology, GIS and Remote sensing techniques.

**Qualifications:**

**Postdoctoral fellowship:** School of Chemistry, University of KwaZulu-Natal, South Africa, 2010.

**PhD (**Chemistry) School of Chemistry, University of KwaZulu-Natal, South Africa, 20th April, 2010. The thesis title (Extractives from species of the Myrtaceae and Rubiaceae of southern Africa), under supervision of Professor Dulcie Mulholland and Dr. Philip Coombes.

**M.Sc**. (Chemistry) Department of Chemistry, College of Science, Sudan University of

Science and Technology,20th October, 2000. The thesis title (The stability constants of the complexes of hydroxamic acids with Cu(II), Ni(II) and Co(II) in non-aqueous solvents), under supervision of Dr Mohamed Abbo and Professor Hassan Abdelaziz.

**B.Sc.** Merit in Chemistry (Nehru’s Prize), Faculty of Science, University of Khartoum, 10th October, 1983.

**Awards and Prizes:**

[1] Nehru Prize for Best B.Sc (General student) from University of Khartoum 1983.

[2] Research Grant from Ministry of Higher Education and Scientific Research (MoHE), Sudan 2016 ( 262,000 SDG). The project title is “Sustainable development in Sudan: Nanotechnology, GIS and Remote Sensing as new technologies in water quality and wastewater treatment” (Principal Investigator).

[3] Research Grant from Ministry of Higher Education and Scientific Research (MoHE), Sudan 2013 (30,000 SDG). The project title is “*Jatropha curcas* L. as an alternative fuel: Extraction, Optimization, Kinetics and Thermodynamics” (Principal Investigator).

[4] Research Grant from Ministry of Higher Education and Scientific Research (MoHE), Sudan 2011 ( 18,000 SDG). The project title is “Synthesis of novel chalcones as antitumors” (Principal Investigator).

**Experiences:**

\* Visiting Researcher**:** School of Geography, Archaeology and Environmental Studies, Faculty of Science, University of The Witwatersrand, Johannesburg, South Africa, 15 Sep -15 Dec 2014.

\* Associate Professor, Department of Chemistry, Alzaiem Alazhari University, June 2013.

\* Co-ordinator for Postgraduates Studies, Septemper 2013 - February 2016.

\* Assistant Professor, Department of Chemistry, Alzaiem Alazhari University, 2008-2013.

\* Assistant Professor, Department of Chemistry, AlNeelain University, Jan 2015 - present.

\* Lecturer, Department of Chemistry, Alzaiem Alazhari University, 2001 - 2008.

\* Lecturer (part-time), Faculty of Public and Environmental Health, University of Khartoum, 2000 – 2004.

\* Lecturer (part-time), Future University, Sudan 2000 - 2001.

\* Lecturer (part-time), Faculty of Pharmacy, Alribat National University, Sudan 2001-2004.

**Workshops:**

[1] Remote sensing and image processing, 15-19 March 2015, IT Center, Alzaiem Alazhari University, Khartoum North, Sudan.

[2] Spectrometry and Spatial Analysis, 20-24 October 2014, 10th International Conference of the African Association of remote Sensing of the Environment, University of Johannesburg (AARSE 2014).

[3] Computational Chemistry, University of KwaZulu-Natal, Durban, South Africa, 10-15 November 2008, organized by Centre of High-Performance Computing, Cape Town, South

Africa.

**Academic Development and Training:**

The 8th Basic Training Program organized by the Academic Development and Administration

Center, Alzaiem Alazhari University, 26-09-20110 to 07-10-2010.

**Article Reviewer:**

Natural Product Communications, **2013**

Journal of Plant Science and Medicinal Plants, **2013**

Journal of Essential Oil Bearing Plants, **2014**

Journal of the Turkish Chemical Society, Section A: Chemistry **2014**

Scientific Research and Essays, **2014**

**Editorial Board:**

**[1]** Journal of Applied and Industrial Studies 2012-

Website: <http://www.researchpub.org/journal/jais/jais.html>

**[2]** International Journal of Advanced Industrial Engineering 2012-

Website: <http://www.inpressco.com/editorial-ijaie>

**[3]** Continental Journal of Applied Sciences 2013.

Website: <http://www.wiloludjournal.com/ojs/index.php/cjapsci>

**[4]** International Journal of Traditional and Herbal Medicine (IJTHM) 2013.

Website: <http://www.ijthmjournal.com/editorial-board/>

**[5]** International Journal of Modern Organic Chemistry 2013.

Website: <http://modernscientificpress.com/Journals/IJOrgChem.aspx>

[6] Medicinal Plants Research 2014

Website: <http://scipluspub.org/index.php/journals/medicinal-plants-research>

**Courses taught for undergraduates:**

(1) Transition metals chemistry and Coordination Chemistry (2) Organometallic chemistry (3) Molecular Symmetry and Group theory (4) Structure and bonding (5) Hybridization and Structure (6) Aromaticity (7) Stereochemistry (8) Spectrometric Identification of Organic compounds (MS, UV-Vis, IR and Raman, 1D and 2D NMR) (9) Analytical chemistry (for Medical Laboratory Sciences)

**Courses taught for Postgraduates:**

(1) Natural Products Chemistry (2) Molecular Symmetry and Group Theory (3) Organometallic Chemistry (4) Spectroscopy (5) Retrosynthesis

**Postgraduate supervision:**

I am currently supervising three PhD and two MSc postgraduates, co-supervised two MSc candidates.

I did examine three PhD and more than twenty MSc postgraduates as an external examiner.

**Publications:**

**[1]** Musa E. Mohamed, **Abdelhafeez M.A. Mohammed**. **2013**. Experimental and computational vibration study of amino acids. *International Letters of Chemistry Physics and*

*Astronomy* 10 (1), 1-17.

**[2]** Sakina Yagi, Sayadat El Tigani, Mayada Ali, Ibrahim Elkhidir, **Abdelhafeez M.A. Mohammed**. **2013**. Chemical Constituents and Insecticidal Activity of *Senna italica* Mill. from the Sudan. *International Letters of Chemistry Physics and Astronomy,* 9 (2), 146 - 151.

**[3] Abdelhafeez M.A. Mohammed**, Philip H. Coombes, Neil R. Crouch, Dulcie A. Mulholland. **2013**. Chemical Constituents from *Fadogia homblei* De Wild (Rubiaceae). *International Letters of Chemistry Physics and Astronomy.*9 (2) 116-124.

**[4] Abdelhafeez M.A. Mohammed,** Amna M. Ibrahim, Ayat A. Omran, Moawia E. Mohamed, Sumaya E.M. Elsheikh. **2013**. Minerals content, essential oils composition and physicochemical properties of *Citrus jambhiri* Lush (Rough Lemon) from the Sudan. *International Letters of Chemistry Physics and Astronomy,* 9 (1), 25-30.

**[5]** Sakina Yagi, Alia E. Abd Rahman, Gihan O.M. ELhassan, **Abdelhafeez M.A. Mohammed**. **2013**. Elemental Analysis of Ten Sudanese Medicinal Plants by using X-ray Fluorescence. *Journal of Applied and Industrial Sciences*, 1 (1), 49-53.

**[6] Abdelhafeez M.A. Mohammed**, Philip H. Coombes, Neil R. Crouch, Dulcie A. Mulholland., **2012**. Garjasmine unequivocally isolated from the Rubiaceae. *Biochemical Systematics and Ecology* (Kew, UK), 44, 109 – 111.

**[7]** Dulcie A. Mulholland, **Abdelhafeez M.A. Mohammed**, Philip H. Coombes, Shafiul Haque, Leena L. Pohjala, Päivi S.M. Tammela, Neil R. Crouch., **2011**. Triterpenoid Acids and Lactones from the Leaves of *Fadogia tetraquetra* var. *tetraquetra* (Rubiaceae), *Natural Product Communications* (USA), 6 (11), 1573 - 1576.

**[8] Abdelhafeez M.A. Mohammed**, Philip H. Coombes, Neil R. Crouch, Dulcie A. Mulholland., **2009**. Non-volatile isolates of two *Heteropyxis* species: a first chemotaxonomic assessment of subfamily Psiloxyloideae (Myrtaceae). *Biochemical Systematics and Ecology* (Kew, UK), 37, 241-243.

**[9]** Ehsan H.J. Ahmed, Ragaa S.M. Abadi, **Abdelhafeez M.A. Mohammed**, (2016).Chemical composition and antioxidant activity of seed essential oil of *Coriandrum sativum* L. from the Sudan. American Journal of Essential Oil and Natural Products. (**To be revised**)

**[10]** Loiy Elsir Ahmed Hassan; Saad Sabar Dahham; Sultan Ayesh Mohammed Saghir; **Abdelhafeez M.A. Mohammed**; Nagla Mohammed Eltayeb; Amin Malik Shah Abdul Majid; Aman Shah Abdul Majid.(2016). Chemotherapeutic potentials of the Stem Bark of Balanite aegyptiaca (L.) Delile: An antiangiogenic, antitumor and antioxidant agent (**Accepted for publication**).

**Conferences** (**Oral Presentations**):

**[1] Abdelhafeez M.A. Mohammed**,Khaled Abutaleb, Fethi Ahmed. **2015**. Mapping of Sudanese medicinal plants using GIS and Remote Sensing techniques. The Natural Products Research – Improved Health and Agriculture through Sustainable Exploration of Biodiversity for Drug Discovery and Bio-energy. Book of Abstracts for the 16th NAPRECA Symposium, NAPRECA, Arusha, Tanzania, 31st August - 3rd September 2015, pp. 43.

**[2] Abdelhafeez M.A. Mohammed**, **2013**. Why Natural Products Chemists bother with Analytical Chemistry. In: Solomon Derese (Editor). Natural Products discovery – Focus on the ever increasing African health care needs. Book of Abstracts for the 15th NAPRECA Symposium, NAPRECA, Khartoum, Sudan, pp. 47.

**[3] Abdelhafeez M.A. Mohammed**, Dulcie A. Mulholland, Philip H. Coombes, Shafiul Haque, Leena L. Pohjala, Paivi S.M. Tammela, Neil R. Crouch, **2012**. Bioactive natural products from the leaves of *Fadogia tetraquetra* var, *tetraquetra*. Natural Products for Health and Beauty, Book of Extended Abstracts for the **NAT**PRO**4**. The 4th Iternational Conference on Natural Products for Health and Beauty, Chiang Mai, Thailand, 158 (ISBN: 978-947-672-745-7).

**[4] Abdelhafeez M.A. Mohammed**, Philip H. Coombes, Neil R. Crouch, Dulcie A. Mulholland, **2011**. Extractives from *Heteropyxis natalensis*. In: Midiwo, J. O., Yenesew, A. and Derese, S. (Eds.). Natural Products from African Biodiversity, Book of Extended Abstracts for the 14th NAPRECA Symposium and AAMPS Ethnoveterinary Medicine Symposium. NAPRECA, Nairobi, Kenya, 92 - 95.

**References**:

**[1]** Professor Dulcie Mulholland, Division of Chemical Sciences, Faculty of Health and Medical Sciences, University of Surrey, Guildford, Surrey GU2 7XH, United Kingdom. E-mail: d.mulholland@surrey.ac.uk Phone work: +441483 68 6751

**[2]** Dr. Philip Coombes, School of Chemistry, University of KwaZulu-Natal, Westville Campus, Private Bag X54001, Durban, 4000, South Africa. E-mail: coombesp@ukzn.ac.za Phone work: +27 31 260 1395

**[3]** Professor Neil Crouch, Ethnobotany Unit, South African National Biodiversity Institute, PO Box 52099, Berea Road, Durban 4007, South Africa. E-mail: n.crouch@sanbi.org.za

**[4]** Professor Fethi Ahmed, Head, School of Geography, Archaeology and Environmental Studies, Faculty of Science, University of The Witwatersrand, South Africa, E-mail: fethi.ahmed@wits.ac.za Phone +27117176503