

## **CURRICULUM VITAE**



Name : DAVIES, Theophilus, Clavell

Professional Status : Full Professor, Chartered Geologist and Environmental Consultant

The National Research Foundation of South Africa (NRF) Rating: Established Researcher

Competence : (1) Medical Geology and Environmental Geochemistry and Health;  
(2) Environmental Impact of Mining and Monitoring of Hazardous Substances and Emissions of Geogenic Origin;  
(3) Geoenvironmental Hazards and Disasters in Africa;  
(4) Chemistry and Pollution of Natural Waters;  
(5) Geological Aspects of Waste Disposal;  
(6) Improvement of Ethical Practices in African Geoscience;  
(7) Invertebrate Palaeontology and Evolution;  
(8) Geoscience Education in Africa

Languages : (1) English - very fluent in speech and writing  
(2) German - very fluent in speech and writing  
(3) Krio (mother tongue) - very fluent in speech and writing  
(4) French - working knowledge  
(5) Kiswahili - working knowledge

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## **EDUCATION**

- (1) B. Sc. (Geology and Chemistry), 1973, University of Sierra Leone
- (2) M. Sc. (Applied Geochemistry), 1977, University of Wales, U.K. Thesis: "Heavy and precious metal distribution in laterites and associated sediments"
- (3) Ph. D. (Applied Geochemistry), 1985, University of Sierra Leone. Thesis : "The behaviour of trace elements during laterite formation in Sierra Leone"

## **PROFESSIONAL EXPERIENCE**

- (1) Over forty years of undergraduate and postgraduate **teaching, research, community engagement** and **graduate supervision** in Medical Geology, Environmental Geology, Pure and Applied Geochemistry and Palaeontology (University of Sierra Leone); University of Wales, U.K.; Aachen University of Technology, Germany; University of Nairobi, Kenya; University of Zimbabwe, Moi University, Kenya; University of Jos, Nigeria; University of Venda, South Africa, Mangosuthu University of Technology, South Africa and University of Nigeria
- (2) (Former) Associate Editor of the American Association of Petroleum Geologists' Journal, 'Environmental Geosciences' and 'Journal of African Earth Sciences'; Guest Editor for the Journal 'Environmental Geochemistry and Health' and Journal of Geochemical Exploration'; (Former) Member of the 'Editorial Board of the Journal 'African Geoscience Review'; Served as Reviewer for 'Journal of Hydrology', 'Discovery and Innovation', 'African Urban Quarterly', 'Tanzanian Journal of Science', 'African Journal of Science and Technology'; 'Geological Society of London; Former Editor-in-Chief of 'Africa Environmental Review' (AER), etc.
- (3) External Examiner, Department of Geology, University of Nairobi, 1996 to 2001, and 2013 to 2015; Department of Geology, University of Dar es Salaam, Tanzania, in 2000; Department of Geology, Karnatak University, Dharwad, India, in 2002; School of Applied Geology, Curtin University of Technology, Western Australia in 2003; Department of Geology, Ahmadu Bello University in 2007; Department of Geology, University of Ghana, Legon in 2012; University of Western Cape, South Africa, 2011 to present; Kumasi National University of Science and Technology (KNUST) in 2014/2015; University of Venda, South Africa (2015), etc.

## **EMPLOYMENT RECORD**

- Visiting Professor, Department of Geology, University of Nigeria, Nsukka, 2016 - present
- Research Professor, Faculty of Natural Sciences, Mangosuthu University of Technology, South Africa, 2012 - 2015
- Professor of Environmental / Medical Geology, University of Venda, 2009 - 2012
- Professor of Environmental Geology, University of Jos, Nigeria, 2005 - 2009
- Professor of Environmental Geology, Moi University, Kenya, 2002 - 2005
- Associate Professor (Environmental Geology) Moi University, Kenya, 1995 - 2001
- Senior Lecturer in Environmental Geology, University of Zimbabwe, 1995
- Lecturer in Environmental Geology, University of Nairobi, Kenya, 1989 - 1995
- Lecturer in Geology, University of Sierra Leone, 1977 - 1988
- Research Demonstrator in Igneous Petrology, Department of Geology, University College Swansea, University of Wales, U.K., 1974 - 1976
- Research and Teaching Assistant, University of Sierra Leone, 1973 - 1974

## **HONOURS AND AWARDS**

- Elected Fellow of the Geological Society of London (FGS), 1974
- DAAD Visiting Scientist, Institute of Mineralogy and Ore Deposits, Aachen University of Technology 1983
- Alexander von Humboldt Foundation, Postdoctoral Fellowship, 1986 - 1988

- DAAD Visiting Scientist, Department of Geology, University of Karlsruhe, 1992
- Elected Chartered Geologist (CGeol) of the Geological Society of London, 1994
- Nominated Fellow of the American Biographical Institute (FABI), 1994
- Visiting Scientist, Department of Geology, University of Hamburg, 1994
- Alexander von Humboldt Visiting Professor, University of Braunschweig, 1998
- Visiting Professor, GEOMAR, Leibniz Institute for Marine Sciences, University of Kiel, 2011
- Inducted into Maqui's 'WHOs WHO in the World', 2011
- Visiting Professor, Department of Engineering Geology and Hydrogeology, Aachen University of Technology, 2014
- Nigerian Mining and Geosciences Society (NMGS) - Shell Petroleum 2014 Award: 'In Recognition of Persistent and Consistent Contributions to the Development of Mining and Geosciences in Africa' (sic)
- Nominated Fellow, African Academy of Sciences, 2015
- Nominated Georg Forster Research Award of the Alexander von Humboldt Foundation in 2016

#### **INTERNATIONAL WORKSHOPS AND CONFERENCES ORGANISED (Sample only)**

- East and Southern Africa Regional Workshop on Geomedicine, Nairobi, Kenya, 23 - 27 June, 1999
- Geoenvironmental Hazards and Disasters in Africa, Nairobi, Kenya, 01 - 03 July, 2002
- Addressing Environmental Health Impacts of Major and Abandoned Mines in Sub-Saharan Africa, Johannesburg, South Africa, 10 - 12 November, 2011
- Quest for Pragmatic Solutions to Complex Environmental and Health Problems of Small Scale Mining in Sub-Saharan Africa, 27 - 30 June, 2012, Kumasi, Ghana
- UNESCO/SIDA Scoping Workshop on Environmental and Health Impacts of Active and Abandoned Mines in Sub-Saharan Africa, Johannesburg, South Africa, 27 - 30 January, 2013
- Addressing Environmental Health Impacts of Mining in Sub-Saharan Africa Through Improvements in Mitigation and Rehabilitation Techniques, Yaounde, Cameroon, 25 - 29 June, 2013
- Addressing Environmental and Health Impacts of Active and Abandoned Mines in Sub-Saharan Africa, Prague, Czech Republic, 26 - 28 May, 2014
- "Organised Session" - 'Urban Geochemistry and Pollution of African Megacities', Joint International Conference on Environment, Health, GIS and Agriculture, Galway, Ireland, 2016

#### **COMMITTEES AND ADMINISTRATIVE SERVICES**

- Elected into the Governing Council and Board of Trustees, Geological Society of London, 1996 (Served till 2000)
- Founder and Chair of the East and Southern Africa Association of Medical Geology (ESAAMEG), 1999
- IUGS Commission on Geosciences for Environmental Management (GEM), 1990 - 2006
- Head, Department of Environmental Health, School of Environmental Studies, Moi

University, Kenya, 2003

- Regional Councillor for Southern Africa, Association of Applied Geochemists (AAG), 2006 -
- Grants Committee, National Research Foundation of South Africa, Blue Skies Research Programme, 2011
- Adjudication Panel, National Research Foundation of South Africa, Community Engagement Research Programme: Indigenous Knowledge Systems and African Origins, 2013
- Co-cordinator, UNESCO/SIDA Project Environmental and Health Impacts of Mining in Sub-Saharan Africa, 2013
- Councillor for Geosciences, International Medical Geology Association (IMGA), 2011 - 2015
- Executive Committee, Mineralogical Society of South Africa (MINSA), 2014 -
- Scientific Committee, UNESCO International Centre for Global-Scale Geochemistry, 2016 - 2021

## **CONSULTANCY**

- Messrs Texault and Co. Ltd. of Sierra Leone (waste management), 1984
- United States Geographical Expedition to West Africa (Late Precambrian Glacigenic Sediments), 1984
- Italian Ministry for Foreign Affairs (University Education of the Geologist in African Countries), 1984
- United Nations Environment Programme (UNEP) (Pedagogy, Environmental Geosciences), Yalta, CIS, 1992
- National Bank of Kenya (Gem deposits Prospecting, Tsavo National Park, Kenya), 1993
- Volkswagen Foundation of Germany (Project evaluation, Coltan Environmental Management), Kigali, Rwanda, November, 2007
- Federal Republic of Nigeria Ministry of Science and Technology, Bauchi State (National Landslide Mapping Programme), 2007

## **OTHER LEARNED SOCIETIES AND PROFESSIONAL BODIES**

1. Fellow of the Association of Applied Geochemists (AAG), 2006 - Present
2. Member of the Geological Society of South Africa, 2014 - Present
3. Member of the Nigerian Mining and Geosciences Society, 2014 - Present
4. Member of the Society of Mining Engineers of AIME, 1981 - 1982
5. Fellow of the Geological Society of Kenya (GSK) since 1990
6. Member of the Geological Society of Africa (GSAf) since 1993
7. Member of the East African Natural History Society (EANHS) since 1990
8. (Former) Executive Committee Member of the 'East Africa Geoscientific Network'
9. Member of the International Water Resources Association (IWRA), 1992 - 1994
10. Member of the New York Academy of Sciences, 1995
11. Member of the International Association of Engineering Geologists, 1995.

**INTERNATIONAL PEER REVIEWED ARTICLES IN JOURNALS, BOOKS, BOOK CHAPTERS AND PROCEEDINGS OF APPROVED CONFERENCES - A SELECTION IN CHRONOLOGICAL ORDER:**

Poswa, T.T. and **DAVIES, T.C., 2017.** The Nature and Articulation of Ethical Codes on Tailings Management in South Africa. **Geosciences**, Vol. 7 (4), 101; DOI:10.3390/geosciences7040101.

Kazeem, M.I., Bankole, H.A., Fatai, A.A., Adenowo, A.F. and **DAVIES, T.C., 2017.** Antidiabetic Functional Foods With Antiglycation Properties. Reference Series in Phytochemistry: Bioactive Molecules in Food. ISSN: 2511-834X. **Springer.**

Edith-Etakah, B.T., Shapi, M., Penaye, J., Mimba, M.E., NguemheFils, S.C., Nadasan, D.S., **DAVIES, T.C.** and Jordaan, M.A., **2017.** Background Concentrations of Potentially Harmful Elements in Soils of the Kette-Batouri Region, Eastern Cameroon. **Research Journal of Environmental Toxicology**, Vol. 11 (1), p. 40 - 54. DOI: 10.3923/rjet.2017.40.54.

Nadasan, D.S., **DAVIES, T.C.,** Shapi, M.M. and Chirenje, E. The Distribution of Some Potentially Harmful Elements (PHEs) in the Krugersdorp Game Reserve, Gauteng, South Africa: Implications for Wildlife Health. (In Press, **2017**).

**DAVIES, T.C., 2016.** Applied Geochemistry: Recent Trends and Issues in Africa (2012 - 2016). Publ. Association of Applied Geochemists, Ontario, Canada. URL: <https://www.appliedgeochemists.org/index.php/regional-councillor-reports/africa> (accessed 29.04.2017).

Kazeem, M.I. and **DAVIES, T.C., 2016.** Anti-diabetic Functional Foods as Sources of Insulin Secreting, Insulin Sensitizing and Insulin Mimetic Agents. **Journal of Functional Foods**, Volume 20, p. 122 - 138.

Obiora, S.C., Chukwu, A., Toteu, S.F. and **DAVIES, T.C., 2016.** Assessment of heavy metal contamination in soils around lead (Pb)-zinc (Zn) mining areas in Enyigba, Southeastern Nigeria. **Journal of the Geological Society of India** Vol. 87, Issue 4, p. 453 - 462.

Obiora, S.C., Chukwu, A. and **DAVIES, T.C., 2016.** Heavy metals and health risk assessment of arable soils and food crops around Pb-Zn mining localities in Enyigba, southeastern Nigeria. **Journal of African Earth Sciences**, Volume 116, p. 182 – 189.

**DAVIES, T.C., 2015.** Urban Geology of African Megacities. **Journal of African Earth Sciences**, Vol. 110, p. 188 - 226. DOI: 10.1016/j.jafrearsci.2015.06.01, **Elsevier.**

Arthur, G.D., Aremu, A.O., Kulkarni, M.G., Okem, A., Stirk, W.A., **DAVIES, T.C.** and Van Staden, J., **2015.** Can the use of natural biostimulants be a potential means of phytoremediating contaminated soils from goldmines in South Africa? **International Journal of Phytoremediation**. DOI: 10.1080/15226514.2015.1109602.

Buthelezi, S.A. and **DAVIES, T.C., 2015.** Carbon monoxide (CO), ozone (O<sub>3</sub>) and nitrogen dioxide (NO<sub>2</sub>) exposure from vehicular transportation and other industrial activities in the vicinity of Umlazi Township, South of Durban, KwaZulu-Natal Province, South Africa. **Transactions of the Royal Society of South Africa.** DOI: 10.1080/0035919X.2015.1046972. Available at: <http://www.tandfonline.com/eprint/4EFWpidtFKmHMdX6dETW/full#.VZ9qlvmqqko> **Taylor & Francis.**

Kazeem, M.I. and **DAVIES, T.C., 2015.** Hypoglycaemic potential of leaf extracts of *Lonchocarpus cyanescens* (Schum. And Thonn) Benth. **Transactions of the Royal Society of South Africa.** <http://dx.doi.org/10.1080/0035919X.2015.1078264>. Taylor and Francis. p. 1- 6.

**DAVIES, T.C., 2015.** Urban geochemistry of Lagos. Proceedings of the 27<sup>th</sup> International Symposium of the Association of Applied Geochemists, 20 - 24 April, 2015, Tucson, Arizona, USA. Available at: [https://www.appliedgeochemists.org/images/stories/iags\\_2015/abstracts/27th%20iags\\_davies\\_urban%20geochem%20of%20lagos.pdf](https://www.appliedgeochemists.org/images/stories/iags_2015/abstracts/27th%20iags_davies_urban%20geochem%20of%20lagos.pdf)

Bigara, A.D. and **DAVIES, T.C., 2015.** Integration of HIV and AIDS Education into the Curriculum at Mangosuthu University of Technology. <https://www.researchgate.net/project/Integration-of-HIV-and-AIDS-education-into-the-curriculum-at-Mangosuthu-University-of-Technology> (accessed 17.05.2017).

Křibek, B., **DAVIES, T.C.** and De Vivo, B. (**Editors**), **2014.** Impacts of Mining and Mineral Processing on the Environment and Human Health in Africa. “**Special Issue**”, **Journal of Geochemical Exploration**, Vol. 144, Part C, p. 387 - 580 (**193 pages**). **Elsevier** - <http://www.sciencedirect.com/science/journal/03756742/144/part/PC>

Křibek, B. and **DAVIES, T.C. (Editors), 2014.** Addressing Environmental and Health Impacts of Active and Abandoned Mines in Sub-Saharan Africa. Proceedings of the “Joint Closing Workshop of IGCP/UNESCO/SIDA Projects 594 and 606”, Prague, Czech Republic, 26 - 28 May, 2014. **Czech Geological Survey**; ISBN: 978-80-7075-858-8. 205 p. \* (**With 10 other papers co-authored by DAVIES in this Volume, not appearing on this list; but available at: [http://www.geology.cz/igcp594/prague2014/closing\\_workshop\\_igcp\\_prague-2014.pdf](http://www.geology.cz/igcp594/prague2014/closing_workshop_igcp_prague-2014.pdf)**)

Buthelezi, S.A. and **DAVIES, T.C., 2014.** The environmental and health impacts of carbon emissions from active and abandoned coal mines in South Africa: A review of secondary data. In: Křibek, B. and **DAVIES, T.C. (Editors), 2014.** Addressing Environmental and Health Impacts of Active and Abandoned Mines in Sub-Saharan Africa. Proceedings of the “Joint Closing Workshop of IGCP/UNESCO/SIDA Projects 594 and 606”, Prague, Czech Republic, 26 - 28 May, 2014. **Czech Geological Survey**; ISBN: 978-80-7075-858-8. p. 23 - 26. Also available at: [http://www.ehrn.co.za/download/lecture\\_series\\_12.pdf](http://www.ehrn.co.za/download/lecture_series_12.pdf) (accessed 03.07.15)

**DAVIES, T.C., Křibek, B., Ngure, V., Poswa, T.T., Arthur, G.D. and Ettler, V., 2014.** Report: Joint Closing Workshop of the IGCP/UNESCO/SIDA Projects 594 and 606. **EPISODES, Journal of International Geoscience**, Vol. 37, No. 3, p. 222 - 223

Křibek, B. De Vivo and **DAVIES, T.C., 2014.** Impacts of mining and mineral processing on the environment and human health in Africa. **Journal of Geochemical Exploration**, Vol. 144, Part C, p. 387 - 390. **Elsevier**

Ngure, V., **DAVIES, T.C.**, Kinuthia, G., Sitati, N., Shisia, S., and Oyoo-Okoth, E., **2014**. Concentration levels of potentially harmful elements from gold mining in Lake Victoria Region, Kenya: Environmental and health implications. **Journal of Geochemical Exploration**, Vol. 144, Part C, p. 511 - 516. **Elsevier**

IUGS/IAGC Task Group (Including **DAVIES, T.C.**), **2014**. “2014 Annual Report for the International Union of Geological Sciences (IUGS)/International Association of Geochemistry (IAGC) Task Group on Global Geochemical Baselines”. URL: <http://www.globalgeochemicalbaselines.eu/>

**DAVIES, T.C.**, **2013**. Geochemical variables as plausible aetiological cofactors in the incidence of some common environmental diseases in Africa. **Journal of African Earth Sciences**, Vol. 79, p. 24 - 49. doi: <http://dx.doi.org/10.1016/j.elsevier>

Abrahams, P.W., **DAVIES, T.C.**, Solomon, A.O., Trow, A.J. and Wragg, J., **2013**. Human geophagia, Calabash chalk and Undongo: Mineral element nutritional implications. **PLOS ONE**, Vol. 8, No. 1, e53304. doi:10.1371/journal.pone.0053304

Momoh, A., **DAVIES, T.**, Akinsola, H., Akinyemi, S.A., Mhlongo, S., Gitari, W. and Pindihama, G.K., **2013**. Human bioaccessibility of Fe, Mn, Zn and Cu from consumed earth materials in Vhembe District, South Africa. **Transactions of the Royal Society of South Africa**, Vol. 68, No. 1, p. 33 - 39. DOI: 10.1080/0035919X.2012.755715

Davies, B., Bowman, C., **DAVIES, T.C.** and Selinus, O., **2013**. Medical Geology: Perspectives and Prospects. In : Selinus, O., Alloway, B., Centeno, J., Finkelman, R., Fuge, R., Lindh, U. and Smedley, P. (Eds.), “**Essentials of Medical Geology**”, New Revised Edition, Chapter 1, p.1 - 14, DOI 10.1007/978-94-007-4375-5\_1, **Springer** Dordrecht, Netherlands, p. 1 - 14

**DAVIES, T.C.**, **2013**. Applied Geochemistry: Trends and issues in Africa. **ELEMENTS**, Vol. 9, No. 3, p. 220 [www.elementsmagazine.org/archives/e9\\_3/e9\\_3\\_sn\\_aag.pdf](http://www.elementsmagazine.org/archives/e9_3/e9_3_sn_aag.pdf)

**DAVIES, T.C.**, **2013**. The geochemical circulation of potentially harmful elements in the tropical rainforest belt of Africa. [http://abandonedminesafrica.org/downloads/Factors%20controlling%20the%20geochemical%20circulation%20of%20some%20potentially%20harmful%20elements%20\(PHEs\)\\_Theo%20Davies.pdf](http://abandonedminesafrica.org/downloads/Factors%20controlling%20the%20geochemical%20circulation%20of%20some%20potentially%20harmful%20elements%20(PHEs)_Theo%20Davies.pdf)

Nghargbu K., Schoeneich, K. S., Alagbe, A., **DAVIES, T.C.** and Shekwolo, P., **2012**. Quality of formation water from the Nigerian Oil Fields for balneotherapy. **Acta Balneologica**, Vol. 128, No. 2, p. 121 - 125. ISSN: 2082 - 1867

**DAVIES, T.C.**, Odhiambo, B.D.O., Mapani, B., Matshusa, K. and Yibas, B., **2012**. IGCP goes deep - Report of the IGCP/SIDA/UNESCO/UNIVEN Project 606 Workshop, Johannesburg, 10 - 12 November, 2011. **EPISODES, Journal of International Geoscience**, Vol. 35, No. 2, p. 351 - 353; ISSN: 0705 – 3797; 11 – 3875 / P, Beijing, China

Momoh, A., **DAVIES, T.C.**, Akinsola, H.A., Iweriabor, B. and Mashao, M.B., **2012**. Geophagy, anaemia, and geohelminth infection amongst non-pregnant women in Vhembe District, South Africa. **International Journal of Current Research**, Vol. 4, Issue 11, p. 129 - 134.

Ngure, V., **DAVIES, T.C.** and Amponsah-Dacosta, F., **2012**. Quest for pragmatic solutions to complex environmental and health problems of small scale mining. **EPISODES, Journal of International Geoscience**, Vol. 35, No. 4, p. 529 - 531; ISSN: 0705 – 3797; 11 – 3875 / P, Beijing, China

**DAVIES, T.C., 2012**. Advances in mitigation and rehabilitation technology in major and abandoned mines in Sub-Saharan Africa. In: Mapani, B. and Křibek, B. (Eds.), Environmental and Health impacts of mining in Africa. Proceedings of the Annual Workshop IGCP/SIDA Project No. 594, Windhoek, Namibia, July 5<sup>th</sup> to 6<sup>th</sup> 2012, © p. 16 - 20. **Czech Geological Survey**, ISBN 978-80-7075-781-9

Smith, D.B., Wang, X, Demetriades, A. and Other Contributors Including **DAVIES, T.C., 2012**. “2012 Annual Report for the International Union of Geological Sciences (IUGS)/International Association of Geochemistry (IAGC) Task Group on Global Geochemical Baselines”. URL: <http://www.globalgeochemicalbaselines.eu/>

**DAVIES, T.C., 2011**. Trends in urban organic solid waste re-use in Nairobi, Kenya. **Abstract Volume, 19<sup>th</sup> European Biomass Conference**, Berlin, Germany, 06 - 09 June, 2011

Malapane, T.A., Netshandama, V., **DAVIES, T.C.** and Nikodem, C.V., **2011**. Removal of solid waste in a typical slow sand filter for treatment of drinking water. **Proc. ISWA World Congress 2011, GT20-208**, Daegu, Korea, April, 2011

Momoh, A., **DAVIES, T.C.**, Akinsola, H.A. and Akinyemi, O. **2011**. Mineralogical characteristics of consumed Earth materials from Vhembe District, Limpopo Province, South Africa. In: Ekosse, G-I.E., de Jager, L., Ngole, V.M. (Eds.), African Clay and Clay Minerals Research Group: An Innovative Perspective on the Role of Clays and Clay Minerals, and Geophagia on Economic Development. Book of Conference Proceedings, **1<sup>st</sup> International Conference on Clays and Clay Minerals in Africa and 2<sup>nd</sup> International Conference on Geophagia in Southern Africa, Bloemfontein, South Africa**, 19 - 21 October, 2011, p. 242 - 249. ISBN: 978-0-629-51541-2

Momoh, A., **DAVIES, T.C.**, Akinsola, H.A., Iweriabor, B., Nwobegahay, J. and Nifefe, T., **2011**. Physical features and occurrence of beneficial bacteria in edible clays from Vhembe District, South Africa. In: Ekosse, G-I.E., de Jager, L., Ngole, V.M. (Eds.), African Clay and Clay Minerals Research Group: An Innovative Perspective on the Role of Clays and Clay Minerals, and Geophagia on Economic Development. Book of Conference Proceedings, **1<sup>st</sup> International Conference on Clays and Clay Minerals in Africa and 2<sup>nd</sup> International Conference on Geophagia in Southern Africa, Bloemfontein, South Africa**, 19 - 21 October, 2011, p. 303 - 313. ISBN: 978-0-629-51541-2



**DAVIES, T.C., 2010.** Medical Geology in Africa. In: O. Selinus, R.B. Finkelman and J. Centeno (Eds.), "Medical Geology - A Regional Synthesis"; Chapter 8, p. 199 - 219; 1<sup>st</sup> Edition **Springer Verlag**, Amsterdam, the Netherlands, ISBN-10: 9048134293; 559 pages

**DAVIES, T.C.** and Mundalamo, H.R., **2010.** Environmental health impacts of dispersed mineralisation in South Africa. **Journal of African Earth Sciences**, Vol. 58, No. 4, p. 652 - 666. doi:10.1016/j.jafrearsci.2010.08.009

**DAVIES, T.C., 2010.** Geoscientific and environmental health issues in Africa. **International Geology Review**, Vol. 52, Nos. 7 - 8, p. 873 - 897. **Taylor and Francis, London.** ISSN 0020-6814

**DAVIES, T.C., 2010.** Current status of Applied Geochemistry research in Africa. **EXPLORE**, Vol. 149, p. 12 - 15. Association of Applied Geochemists, Nepean, Canada. Also at: [http://www.appliedgeochemists.org/news\\_africa.html](http://www.appliedgeochemists.org/news_africa.html)

Toteu, S.F., **DAVIES, T.C.**, and Master, S., **2010.** Foreword. In: S.F. Toteu, **T.C. DAVIES** and S. Master (Eds.), "Africa and the International Year of Planet Earth 24. **24.** (IYPE): Promoting Earth Sciences-Based Decision Making in Africa". **Journal of African Earth Sciences**, Vol. 58, No. 4, p. 605 - 607. Doi: 10.1016/j.jafrearsci.2010.08.006

Morain, S., Budge, A., Grobicki, A.M., Rosenberg, M., Selinus, O., Steinnes, E., Enow, A., Avery, M., **DAVIES, T.C.**, and Kijazi, A., **2009.** Mapping GeoUnions to the ICSU Framework for Sustainable Health and Wellbeing: Focus on Sub-Saharan African Cities. **International Council for Science**, Pretoria, South Africa, 59 p

**DAVIES, T.C.**, Ogola, J.S. and Maiyana, A.B., **2009.** Climate change impacts on geological processes and management of the African coastal zone. Proc. **First International WAQUA Workshop**, Ibadan, Nigeria, 26 - 29 October, 2009; p. 12 - 13

**DAVIES, T. C., 2008.** Environmental health impacts of East African rift volcanism. **Environmental Geochemistry and Health**, Vol. 30, No. 4, p. 325 - 338. **Springer Velag**, Amsterdam, the Netherlands

Schlüter, Th. and **DAVIES, T.C., 2008.** What future for geo-education in Africa? **A World of Science**, Vol. 6, No. 2, p. 2 - 8. UNESCO, Paris. [www.unesco.org/science](http://www.unesco.org/science)

**DAVIES, T.C.**, Solomon, A.O, Lar, P. and Abrahams, P.W., **2008.** A socio-cultural study of geophagy in the Jos Plateau, Nigeria. Abstract Volume, p. 8, **First International Conference on Human and Enzoitic Geophagia in Southern Africa**, Bloemfontein, South Africa, 20 - 22 October, 2008

**DAVIES, T.C.**, Solomon, A.O., Lar, P., Abrahams, P.W., **2008.** Mineralogy and geochemistry of geophagic materials consumed in the Jos Plateau, Nigeria. Abstract Volume, p. 38, **First International Conference on Human and Enzoitic Geophagia in Southern Africa**, Bloemfontein, South Africa, 20 - 22 October, 2008

**DAVIES, T.C.,** and Solomon, A.O., **2008.** An inventory of landslides and associated mass wasting events in Nigeria for risk assessment and land use planning. Abstract Volume, Section GHZ-01: Geo-risk in the 21st century, **33rd International Geological Congress**, August 06 - 14, 2008, Oslo, Norway; <http://www.cprm.gov.br/33IGC/1351651.html>

**DAVIES, T.C., 2008.** Urban geology of Lagos, Part I: Air pollution. Abstract Volume, Section PEM-01 Megacities: Going deeper, building safer, **33rd International Geological Congress**, August 06 -14, 2008, Oslo, Norway; <http://www.cprm.gov.br/33IGC/1351651.html>

**DAVIES, T.C., 2008.** Environmental geosciences highlights, trends and issues in Africa, 2006 - 2007. **IUGS-GEM**, No. 11, March, 2008, p. 7 - 12

Schlüter, Th. and **DAVIES, T.C., 2007.** Geological training and education in African universities. **Documenta Naturae**, Vol. 165, p. 83 - 86, ISBN 165-3, Munich, Germany

**DAVIES, T.C., 2007.** ‘Preface’ to book, ‘Geology and Mineral Resources of Plateau State, Nigeria : An Investor’s Guide’ by U.A. Lar et al., publ. by **Jos University Press Ltd.**, ISBN 978-166-564-5, 110 p

Yakubu, T.A., **DAVIES, T.C.,** Mahmud, U.M, et al., **2007.** Geohazards Working Group Project Report on Landslides and Associated Hazards in Nigeria for Risk Assessment and Land Use Planning. Consultant’s Report to Centre for Geodesy and Geodynamics, **Federal Ministry of Science and Technology**, Bauchi State, Nigeria, 93p

**DAVIES, T.C., 2006.** Geohazards in Africa : reducing vulnerability through planning instruments. In : Reedman, A. and Pereira, J. (Eds.), “Sustainable Development of Geo-resources and Geo-environment”, p. 143 - 148, **CCOP/IUGS-GEM: Technical Secretariat**, CCOP, Beijing, China

**DAVIES, T.C., 2006.** Environmental Geology Highlights in Africa : Trends and Issues in 2005 - 2006. In : Reedman, A. and Pereira, J. (Eds.), “Sustainable Development of Geo-resources and Geo-environment”, 231 - 248, **CCOP/IUGS-GEM: Technical Secretariat**, CCOP, Beijing, China

**DAVIES, T.C.** and Dareng, M.K., **2006.** A survey of geological education in West Africa. In: Hlawatsch, S., Obermaier, G. and Martin, U. (Eds.), Geoscience Education: Understanding System Earth, p. 91. **International Geoscience Education Organisation**, Bayreuth, Germany. ISBN 3-932537-44-0

Davies, B., Bowman, C., **DAVIES, T.C.** and Selinus, O., **2005.** Medical Geology : Perspectives and Prospects. In : Selinus, O. et al. (Eds.), “Essentials of Medical Geology”, Chapter 1, p.1 - 14, ISBN 0-12-636341-2, **Elsevier Academic Press**, Oxford, Great Britain

**DAVIES, T.C.** and Osano, O. **2005.** Sustainable mineral development : case study from Kenya. In: Marker, B.R. et al. (Eds.), “Sustainable Minerals Operations in the Developing World”, Chapter 9, p. 87 - 94. **Geological Society of London**, Special Publication, No. 250, ISBN 1-86239 188-2, Bath, Great Britain.

**DAVIES, T.C., 2005.** Environmental Geosciences Highlights: Trends and Issues in Africa, 2004 - 2005. Geosciences for Environmental Management, No. 7, p. 5 - 14, **IUGS-GEM**. Also at : [www.lesteri.ukm/iugsgem/](http://www.lesteri.ukm/iugsgem/)

**DAVIES, T.C.,** Ikiara, M. M., Karanja, A.M. and Furedy, C., 2004. Urban organic solid waste : practices in Nairobi. In : Baud, I.S.A., J. Post and C. Furedy (Eds.), “Solid Waste Management and Recycling : Actors, Partnerships and Policies in Hyderabad, India and Nairobi, Kenya”, Chapter 12, p. 241 - 256, ISBN 1-4020-975-0, **Kluwer Academic Publishers, Dodrecht, The Netherlands**

Ikiara, M.M., Karanja, A.M. and **DAVIES, T.C., 2004.** Collection, transportation and disposal of urban solid waste in Nairobi. In : Baud, I.S.A., J. Post and C. Furedy, (Eds.), “Solid Waste Management and Recycling : Actors, Partnerships and Policies in Hyderabad, India and Nairobi, Kenya”, Chapter 4, p. 61 - 91, ISBN 1-4020-1975-0, **Kluwer Academic Publishers, Dodrecht, The Netherlands**

Karanja, A.M, Ikiara, M.M. and **DAVIES, T.C., 2004.** Reuse, recovery and recycling of urban inorganic solid waste in Nairobi. In : Baud, I.S.A., J. Post and C. Furedy (Eds.), “Solid Waste Management and Recycling : Actors, Partnerships and Policies in Hyderabad, India and Nairobi, Kenya”, Chapter 8, p. 161 - 194, ISBN 1-4020-1975-0, **Kluwer Academic Publishers, Dodrecht, The Netherlands**

**DAVIES, T.C.,** (Ed.), 2004. ‘African Environmental Review’, **Moi University Press, Eldoret, Kenya**, 50 p., ISSN 1727 - 8341

**DAVIES, T.C., 2003.** African geoscientists embrace environmental theme – Abuja Geocongress 2003. **EPISODES, Journal of International Geoscience**, Vol. 26, No. 4, p. 322 – 323, ISSN 0705 – 3797, CN 11 – 3875 / P. International Union of Geological Sciences, Beijing, China

**DAVIES, T.C., 2003.** Environmental geology highlights in Africa, 2002 / 2003. In : J. Satkūnas and R. Kanopienė : “**Geosciences for Urban Development and Environmental Planning**”, p. 22 - 25, ISBN : 9986-623-40-5, Geological Survey, Lithuania

**DAVIES, T.C., 2003.** Some environmental problems of geomediical relevance in East and Southern Africa. In : H.C.W. Skinner and A. Berger : “**Geology and Health : Closing the Gap**”, Chapter 22, p. 139 - 144, ISBN : 0-19- 516204-8, **Oxford University Press Inc., New York**

Chapola, L.S., **DAVIES, T.C.,** et al., 2002. Geoenvironmental hazards and disasters in Africa. **EPISODES, Journal of International Geoscience**, Vol. 25, No. 4, p. 275 - 276. ISSN : 0705 – 3797; 11 – 3875 / P, Beijing, China

**DAVIES, T.C.** (Ed.), 2002. Transactions of the First Workshop of the East and Southern Africa Association of Medical Geology. **Kluwer Academic Press, Dodrecht, the Netherlands**, 184 p., ISSN 0269 - 4042

**DAVIES, T.C.,** Schlüter, T. and Nyambok, I.O. (Eds.), 2002. ‘Geohazards in Africa’;

Africa Geoscience Review, Special Issue, Vol. 9. **Rock View International S.A.R.L. Publishers, Paris, France**, 167 p., ISSN 1117 - 370

Moturi, W.N., Tole, M.P. and **DAVIES, T.C., 2002**. The contribution of drinking water towards dental fluorosis : A case study of Njoro Division, Nakuru District, Kenya. **Environmental Geochemistry and Health**, Vol. 24, No. 2, p. 123 - 130. **Kluwer Dodrecht, Amsterdam, The Netherlands**

**DAVIES, T.C.** and Schlüter, T., 2002. Current status of research in geomedicine in East and Southern Africa. **Journal of Environmental Geochemistry and Health**, Vol. 24, No. 2, p. 99 - 102. **Kluwer Dodrecht, Amsterdam, The Netherlands**

**DAVIES, T.C., 2001**. Mineral Resources of West Africa : Africa Mineral Forum '2000. **UNESCO Bulletin**, Vol. 35, No. 2, p. 9 - 10. UNESCO, Nairobi, Kenya. ISSN: 1020-5535

**DAVIES, T.C.** and Kogbe, C.A., 2001. Africa Mineral Forum '2000. **Geoscience and Development, Official Journal of the Association of Geoscientists for International Development**, No. 7, p. 31 - 33. Exeter, U.K.

**DAVIES, T.C., 2001**. Asbestos hazard in Africa : geological occurrence, mining, health hazards and the need for substitutes. **Journal of the Geological Society of Cameroon**, Special Abstracts Issue, Vol. 1, No. 1A, p. 37 - 38, Yaounde, Cameroon. ISBN : 2-911541-56-X

**DAVIES, T.C., 2001**. Reconstruction in the aftermath of environmental catastrophes in African countries. **Journal of the Geoscience Society of Cameroon**, Special Abstracts Issue, Vol. 1, No. 1A, p. 38, Yaounde, Cameroon. ISBN 2-911541-56-X

Schlüter, T. and **DAVIES, T.C., 2001**. Geomedicine in Eastern and Southern Africa and Short Course on 'Geoindicators'. **UNESCO Bulletin**, Vol. 36, No. 1, p. 5 - 7. UNESCO, Nairobi, Kenya. ISSN : 1020 - 5535

**DAVIES, T.C., 2001**. Dune formation and migration. Abstract Volume on 'GEOINDICATORS', p. 33 - 42. **IUGS / COGEOENVIRONMENT / GSA**, Lusaka, Zambia

**DAVIES, T.C., 2001**. GEOMED 2001 - Medical Geology : The African perspective. **EPISODES, Journal of International Geoscience**, Vol. 24, No. 4, p. 268 - 270. ISSN : 0705 - 3797; CN 11 - 3875 / P, Beijing, China

**DAVIES, T.C.** and Gaciri, S.J., 2001. Status of geological education in Kenya. **Documenta Naturae**, Vol. 136, p. 18 - 20. Munich, Federal Republic of Germany

**DAVIES, T.C.** and Schlüter, T., 2001. Geoscience research in Kenya. **Documenta Naturae**, Vol. 136, p. 27 - 37. Munich, Federal Republic of Germany

**DAVIES, T.C., 2001**. NGOs and sustainable development of Africa's Earth resources. **Geoscience and Development, The Official Journal of the Association of Geoscientists for International Development**, No. 7, p. 18 - 21. Exeter, U.K.

**DAVIES, T.C., 2000.** Disease patterns in the Homa Hills : A documentation and application of health statistics recorded for a small rural community of the Lake Basin region of Western Kenya. **School of Environmental Studies Occasional Publication Series (SESOPS)**, Vol. 1, p. 1 - 19. Moi University Press, Eldoret, Kenya

**DAVIES, T.C., 2000.** Mining and the Human Environment. **School of Environmental Studies Occasional Publication Series (SESOPS)**, Vol. 1, p. 20 - 37. Moi University Press, Eldoret, Kenya

**DAVIES, T.C., 2000.** Geosciences and the human environment in Africa. **Journal of African Earth Sciences**, Special Abstract Vol. 30, No. 4A, p. 21 - 22

**DAVIES, T.C., 2000.** A customised risk assessment and exposure measurement at rural mining sites in Kenya : case study of the Macalder - Migori area, Western Kenya. Special Abstracts Issue, **Africa Geoscience Review**, Vol. 7, No. 2, p. 227, Paris, France. ISSN 1117-370X

**DAVIES, T.C. (Ed.), 2000.** 'Environmental Health', School of Environmental Studies Occasional Publication Series (SESOPS), **Moi University Press, Eldoret, Kenya**, 37 p

Mathu, E.M. and **DAVIES, T.C., 1997.** African Examples of Urban Geology : Environmental Geology of Kenya. **Geology for Sustainable Development, Bulletin II**, p. 94 - 97. UNESCO Publication, ISSN 0258 - 3647

**DAVIES, T.C., (Ed.), 1996.** 'Environmental Geology of Kenya', **Elsevier Science Publishers, Oxford, Great Britain**, 100 p., ISSN 08 99 - 53 62

Mathu, E.M. and **DAVIES, T.C., 1996.** Geology and the environment in Kenya. **Journal of African Earth Sciences**, Volume 23, Number 4, p. 511 - 539. **Elsevier Science Publishers**, Great Britain

**DAVIES, T.C., 1996.** Geomedicine in Kenya. **Journal of African Earth Sciences**, Volume 23, Number 4, p. 577 - 591. **Elsevier Science Publishers**, Great Britain

**DAVIES, T.C., 1996.** Mineral development in Kenya. In : K.I. Rai and G. Singh (Eds.). 'Mineral Development and Environment', **Recent Researches in Geology Series**, Vol. 15, Chapter 5, p. 40 - 43. ISBN 81 - 7075 - 038 - 5. Hindustan Publishing Co., New Delhi, India

**DAVIES, T.C., 1996.** Landslide research in Kenya. **Journal of African Earth Sciences**, Volume 23, Number 4, p. 541 - 545. **Elsevier Science Publishers**, Great Britain

74. **DAVIES, T.C., 1996.** Chemistry and pollution of natural waters in western Kenya. **Journal of African Earth Sciences**, Volume 23, Number 4, p. 547 - 563. **Elsevier Science Publishers**, Great Britain

**DAVIES, T.C., 1995.** The geochemical behaviour of iodine in natural waters of the Kiambu

and Eldoret areas of Kenya. In : I.O. Nyambok (Ed.). **‘Geology for Development Within A Sustainable Environment**, p. 637 - 642, GSAf ‘95, Nairobi, Kenya

**DAVIES, T.C., 1994.** Water quality characteristics associated with fluorite mining in the Kerio Valley area of Western Kenya. *International Journal of Environmental Health Research*, Volume 4, Number 3, p. 165 - 175. **Chapman and Hall Publishers**, London, Great Britain

**DAVIES, T.C., 1994.** Prevention and control of iodine deficiency disorders in Kenya - the need for a multi-disciplinary approach. *Journal of Gastroenterology and Hepatology*, Volume 9, p. A 155. **Blackwell Scientific Publications**, Australia

**DAVIES, T.C., 1994.** Combating iodine deficiency disorders in Kenya : the need for a multidisciplinary approach. *International Journal of Environmental Health Research*, Volume 4, Number 4, p. 236 - 243. **Chapman and Hall Publishers**, London, Great Britain

Nyambok, I.O. and **DAVIES, T.C., 1993.** ‘Geosciences and the Environment’, **Nairobi University Press, Nairobi, Kenya**, 179 p., ISBN 996 684 6204

**DAVIES, T.C., 1993.** Pollution studies on surface waters of the Thika area, Kenya. In : R.N. Chowdhury and S.M. Sivakumar (Eds.). ‘Environmental Management - Geo-Water and Engineering Aspects’, p. 131 - 136. ISBN 90 54 100 990. **A.A. Balkema Publishers**, Amsterdam, The Netherlands

**DAVIES, T.C.** and Nyambok, I.O., **1993.** The Murang’a landslide, Kenya. *Journal of Environmental Geology and Water Sciences*, Volume 21, p. 19 - 21. **Springer-Verlag, New York, Heidelberg, Berlin**

**DAVIES, T.C., 1993.** The impact of mineral development in Kenya. In : N. Opiyo-Akech (Ed.): **‘Geology for Sustainable Development’**, p. 23 - 26. UNEP/UNESCO Publ., Nairobi, Kenya

Gaciri, S.J. and **DAVIES, T.C., 1993.** The occurrence and geochemistry of fluoride in some natural waters of Kenya. *Journal of Hydrology*, Volume 143, p. 395 - 412. **Elsevier Science Publishers, B.V.** Amsterdam, The Netherlands

Mathu, E.M., Ngecu, W.M., Nyamai, C.M. and **DAVIES, T.C., 1992.** Proterozoic Island Arc Tectonism in the Kenya Mozambique Belt East of Nairobi. **UNESCO Bulletin**, No. 8, p. 66 - 69

**DAVIES, T.C.,** Friedrich, G.H. and Wiekowski, A., **1989.** Geochemistry and mineralogy of laterites in the Sula Mountains Greenstone belt, Lake Sonfon gold district, Sierra Leone. *Journal of Geochemical Exploration*, Volume 32, p. 75 - 98. **Elsevier Science Publishers, B.V.** Amsterdam, The Netherlands

**DAVIES, T.C., 1985.** On mineral transformations during laterite formation in Sierra Leone, West Africa. *Journal of African Earth Sciences*, Volume 3, Number 3, p. 347 - 353. **Pergamon Press Ltd.**, Great Britain

**DAVIES, T.C., 1984.** A survey of geological education in Sierra Leone. **Africana Research Bulletin**, Volume 14, Numbers 1 and 2, p. 15 - 31. USL Press, Freetown, Sierra Leone

**DAVIES, T.C., 1983.** Preliminary Report on Geochemical Studies on Laterites From Profiles in Two Areas Underlain by Ultrabasic Rocks in Sierra Leone, West Africa. **Deutscher Akademischer Austauschdienst (DAAD) Project Report**. Available at the Department of Geology Archives, University of Nairobi, Kenya

**DAVIES, T.C. and Bloxam, T.W., 1979.** Heavy and precious metal distribution in laterites, Southwest of Regent, Freetown Igneous Complex, Sierra Leone. **Economic Geology**, Volume 74, Number 3, p. 638 - 644. **Lancaster Press Inc.**, Lancaster, Great Britain

### **Book Reviews**

**DAVIES, T.C., 2008.** Book Review: 'Medical Mineralogy and Geochemistry', **ELEMENTS**, Vol. 4, No. 1, p. 50. **Mineralogical Society of America**, ISBN 978-0-939950-76-6

**DAVIES, T.C., 2003.** Green Chemistry in Africa: Green Chemistry Series No. 5. (Co - Eds) Pietro Tundo and Liliana Mammino, July, 2002, ISBN : 88 88214 07, 214 pages. **Medical Geology Newsletter**, No. 7, Dec., 2003, p. 22 - 23

**DAVIES, T.C., 2003.** Many Streams Form a River: The Story of the African Adult Education Movement, by Irungu Houghton, with Edward Amadu Turay and Ekundayo J.D. Thompson, November, 2002, 92 pp. (Unpublished)

### **Conference Attendance and Participation**

Scores of national and international conferences attended with significant contributions; as keynote speaker or session convener in many of them.

### **Student Supervision**

Over 50 masters students successfully supervised and now graduated; about a dozen doctorates mentored, who have also already graduated. I am in the process of training a cohort of junior and middle level academic staff and graduate students at several African universities on research methods and scientific writing.

### **SOME RECENT MAJOR RESEARCH GRANTS**

- **1996** : Netherlands Universities Foundation for International Co-operation (NUFFIC) Research Grant; for epidemiological studies in assessing health effects of populations exposed to releases from waste disposal sites in the Homa Hills, Lake Victoria Basin, Kenya

- **1997** : European Union Research Grant; with Davies as the Kenyan Team Co-ordinator on an international, multi-disciplinary project entitled : 'Enabling Strategies for Environmental

Management in Growing Multi-Million Cities : An Economic and Environmental Assessment of Solid Waste Systems in Kenya and India’

- **2010** : South African (National Research Foundation)/German Research Cooperation Project on “Addressing Environmental Health Impacts of Trace Metals From Accumulated Tailings Sites in Major Mining Outfits in Limpopo Province, Republic of South Africa and the Federal Republic of Germany”
- **2010**: Research and Innovation: Niche Area Project of the University of Venda, Limpopo, South Africa, Project No. SES/10/MEG/02, entitled: Geophagy (Deliberate Soil Consumption) in Limpopo Province, South Africa: A Socio-Economic, Geochemical and Microbiological Study”
- **2011 - 2014**: International Union of Geological Sciences (IUGS)/International Geological Correlation Programme (IGCP)/UNESCO/Swedish International Development Agency (SIDA), Project No. 606: “Addressing Environmental Health Impacts of Major and Abandoned Mines in Sub-Saharan Africa”
- **2013**: Swedish International Development Agency Extra-Budgetary Project for 2013: “Mapping and Assessing the Environmental and Health Impacts of Abandoned Mines in Sub-Saharan Africa”
- **2014**: Higher Education South Africa - “Integrating HIV and AIDS Education into the Curriculum of Mangosuthu University of Technology (MUT)”
- **2015**: Swedish International Development Agency (SIDA) Extra-Budgetary Project for 2013: “Mapping and Assessing the Environmental and Health Impacts of Abandoned Mines in Sub-Saharan Africa”

## **CONTRIBUTIONS TO HUMANITY (ESPECIALLY THE AFRICAN PEOPLE)**

- (1) TCD is one of the pioneering exponents of the new and exciting geoscientific discipline of “Medical Geology”, whose application is already making so much impact in the prevention, therapy and treatment of a whole array of environmental diseases around Africa and beyond. TCD was also the Founder and Chair of the East and Southern Africa Association of Medical Geology (ESAAMEG).
- (2) TCD has made significant joint contributions through research, to the virtual elimination of iodine deficiency disorders (IDD) in several countries of Africa and beyond.
- (3) TCD made substantial contributions towards the exploration and discovery of huge gemstone deposits around the Tsavo National Park near Voi in southern Kenya in 1994.
- (4) TCD is one of the world’s leading contributors in addressing issues pertaining to problems of geoscientific and environmental health in Africa.
- (5) TCD was Team Leader of the “Geohazards Working Group” that has produced landslide risk assessment maps of both Kenya and Nigeria, with recommendations of the most appropriate prevention and control measures for combating slope instability.
- (6) TCD correctly prescribed that the widespread incidence of skin disorders (hyperkeratosis, skin cancers, etc.) in the Kenya Rift Valley may be due to high arsenic concentrations in drinking water spewed into groundwater sources by the essentially hydrogen fluoride volcanism that accompanied formation of the East African Rift Valley; hence, (TCD) has



made an immense contribution towards more accurate diagnosis and treatment of these maladies (by cutting off the source of arsenic exposure).

(7) TCD has successfully supervised about a dozen Ph.D. and scores of M.Sc. students throughout Africa and beyond in Environmental Geology and Environmental Health, during a teaching and research career spanning well over forty years.

### **SOME MAJOR ON-GOING RESEARCH PROJECTS**

- Urban Geochemistry of Lagos
- Addressing Environmental Health Impacts of Major and Abandoned Mines in Sub-Saharan Africa
- Geoscientific and Environmental Health Issues in Africa
- Medical Geology in Africa
- Geophagy (deliberate soil consumption) in Limpopo Province, South Africa : A Socio-economic, Geochemical and Microbiological Study
- Urban Geology of African Megacities
- Climate Change Impacts on Geological Processes and Management of the African Coastal Zone: The Durban Case Study
- Geoscience Education in Africa
- Integrating HIV and AIDS Education into the Teaching Curriculum of Mangosuthu University of Technology

### **EXTRA-CURRICULAR ACTIVITIES**

1. Methodism: Society Steward, Portuguese Town Methodist Church, Freetown, Sierra Leone; Member, Musgrave Methodist Church, Durban, South Africa
2. Nature Conservation and Preservation of Global Environmental Integrity
3. Sport: Soccer (Barclays Premier League), Cricket, Tennis and Track Athletics
4. Civil Aviation
5. World Geoenvironmental Affairs (Monitoring and Mitigation Strategies for Geological Hazards; Reconstruction and Settlement of Refugees Following Natural Disasters)
6. African Indigenous Languages

**REFEREES:** To be provided on request.

