Curriculum Vitae



1-Name: Badr el Din Khalil Ahmed Khalil

2-Date of Birth: 02/5/1941

3-Nationality: Sudanese

4-Religion: Muslim

5-Marital Status: Married with one son and five daughters

6-Qualifications:

6-1-B.Sc.(Hons.) in Geology, Department of Geology (D. of G), Faculty of Science (F. of S.), University of Khartoum (U. of K.), June 1966 (University Prize).

6-2- Ph.D. Moscow State University (MSU), Nov.1971.

Title of thesis;Lithogeochemical Methods in Mineral prospecting and Exploration in the Sudan.(inRussian Language).

7- Specialization: Geology, Economic Geology

8- Languages: Arabic(mother tongue) - English -Russian.

9- Academic Promotion:-

9-1: Senior Scholar, University of Khartoum, post- graduate student M.Sc. upgraded to Ph.D. studies in Moscow 1966-1967.

9-2: Ph.D. post graduate student Moscow State University 1967-1971.

9-3: Lecturer (D. of G.- F. of Sc. U. of K) Nov. 1971.

9-4: Associate Professor, U. of K.1979.

- 9-5: Professor of Geology, U. of K. (Prima Fascia 1987)
- **9-6:** Professor of Geology, Final Promotion, Al Neelain University (N.U.) July 1997.

10- Teaching Experience:

10-1: B.Sc. and B.Sc.(Honors)Studentsof Earth Sciences:-

Subjects: General Geology, Physical Geology, Mineralogy, Petrology, Regional Geology, Geology and Mineral Deposits of the Sudan and Neighboring Countries, Geology of the Basement Complex, Economic Geology and Geochemical Methods in Prospecting and Exploration. (The last two are the subjects of specialization).

10-1-1: As Permanent Staff member (full time Job).

- University of Khartoum, (1966-1995).
- Red Sea University, (1995-1996).
- Al Neelain University.(1997-up to present).

10-1-2: As Par timer for B.Sc and B.Sc(Hons.)

- -Omdurman Islamic University.
- University of the Sudan for Science and Technology
- University of Juba.
- International University of Africa .
- -Al Imam-Almahadi University.

10-2:Post graduate level:-

10-2-1: as supervisor of postgraduate students:-

- **10-2-1-1:** Seventeen (17)**M.Sc.** students registered in U of K. and N.U., thirteen (13) of them have already been awarded their degrees.
- **10-2-1-2:** Twenty two(22) **Ph.D**. students have been registered in: U of K, N.U., and Berlin Technical University (BTU), Sandwich System Seventeen (17) Candidates have already been awarded their Degree.

10.2.2: As Instructor, Coordinator and Organizerof the following Postgraduate training courses.

10-2-2-1: Instructor ,Coordinator and Organizer of the project: (Prospecting for Uranium and Radioactive Ores in the Sudan) for Geologists of Geological Research Authority of the Sudan (GRAS) and Postgraduates of Sudanese Universities, sponsored by U.of.K, Sudan, Commission of Atomic Energy of the Sudan (C.A.E.S.) 1986.

- **10-2-2-2:** Instructor of the Training Course (Geology and Mineralization of the Precambrian Basement Complex of Africa) delivered to 30 African postgraduate students, organized by Addis Ababa University-Ethiopia, and sponsored by the Canadian International Development Agency(CIDA) and UNESCO, (1986).
- **10-2-2-3:** Instructor of the Training Course (Geochemical Methods in Prospecting and Exploration), delivered to geologists participating in German- Sudanese Special Research Joint Project SFB -69, Berlin Technical University (1991).
- **10-2-2-4**:Coordinator of the Training Project (Establishment of Network of Already Existing or Planned Activates in the Field of Geo-Information Technology (GIT)in East African Universities, as materialization, of the signed Cooperation link between-BeuthHochschule Fur Technik Berlin (BHT) and East African Universities (Bahr Dar University Ethiopia (BDU)- Al Neelain University Khartoum Sudan(ANU)- Juba University Southern Sudan(JU) and sponsored by the German Academic Exchange Service (DAAD).

11-Other Academic and Professional Activities:

11-1: coordinator of and collaborator inScientific Cooperation Links with Other Institutions:

11-1-1: Foreign Institutions:-

- 11-1-1: German Organizations, Institutions and Universities:-
- Collaborator in SFB-69 Project Sudan-German Institutions.
- -Technical University of Berlin (BTU) with UofK; 1980-1995-SFB-69, and with (NU) Since;1997- Up to now.
- -Berlin Free University (BFU), with UofK Since 1980-1995 (SFB-69) and with (NU) Since; 1997- Up to now.
- -BeuthHochsculefur Technik-Berlin. (BHT) with (UN) ;(2010- Up to now till-2014(as shown in 10-2-2-4).
 - -Museum Fur Naturkunde —leibniz Institute for Research on Evolution and Biodiversity, with (NU) since, 2011-up to now.

11-1-1: Russian Institutions:

- -Peoples' Friendship University of Moscow (U.S.S.R).with U.ofK.1974-1995.
- -Leningrad State University (LSU) with Uof K 1974-1995.
- -Pushkin Institute for Russian Language with Uof K (1969-1995).
- Russian Friendship University Moscow, with (NU), since, 1998-up to now.
- -Gobking University of Oil and Gas, Moscow with (NU) 1998- up to now.

11-1-3: Bulgarian Institutions:

- As a Representative (coordinator)of (NU), of a signed Memorandum of Understanding in June 2012 ,with:-
 - -University of Mining and Geology "St Ivan Rilski" Sofia.
 - -Bulgarian Academy of Science:
 - Institute of Geology (with Faculty of Petroleum and Minerals),(FPM)-(NU).
 - Institute of Microbiology (with Faculty of Science and Technology), (FST)-(NU).
- **11-1-4**: Chairman of Consultancy Geo-research Group to study potentiality of Gold mining in Tassanai Region, for Red Sea Governmental Company of Eretria, Sept-Oct, 2012.
- **11-1-2**: Coordinator of Agreements of Cooperation with National (Local) Institutions, Universities and Organizations:-
 - 11-1-2-1: Cooperation Link between FST- NU with White Nile State, since 1999.
 - **11-1-2-2** :Cooperation Academic Link between NU with Al Imam Al Mahadi University ,White Nile State , since 1999 .
 - **11-1-2-3**: Cooperation Academic Link between NU with Red Sea University, since 2000.
 - **11-1-2-4**: Chairman of Consultancy Group to asses Geo-resources and Mining Potentialities of Southern Kordofan State, 2008.
 - **11-1-2-5**: Member of the Advisory Committee of Darfur Commission of Lands, since its establishment in 2005.

11-2:Local, Regional and International Professional Meetings, Workshops, Seminars and Conferences.

- 11-2-1: Conference of Applied Geology–Moscow, 1970(Attendance)
- **11-2-2:** Conference of Establishment of Union of Arab Geologists, Baghdad, 1975, Member sof The Board of Establishment.
- **11-2-3:** Third Conference of Geological Society of Africa, Khartoum, 1976.Member of Organizing Committee.
- **11-2-4:** Conference of Prospecting and Exploration of Mineral Deposits Faculty of Engineering, People's Friendship Univ.-Moscow, 1978.(FE- BFUM)
- 11-2-5: Sixth Conference of the Geological Society of Africa Nairobi-Kenya, 1982.
- 11-2-6: Fifth International Conference on Basement Tectonics, Cairo, Oct. 1983.
- **11-2-7:** Consultative Meeting of the United Nations University for the Establishment of the proposed Institute for Natural Resources in Africa (INRA), Nairobi, 1983.
- 11-2-8: The 27th International Geological Congress (IGC), 4-14 Aug., 1984, Moscow.
- **11-2-9:** Workshop on Hydrogeology, organized by Special Research Project Arid Areas (SFB-69) at Berlin Technical University (BTU) Berlin, May 1985.

- **11-2-10:** International Workshop on Sand Transport and Desertification in Arid Lands. Khartoum, Sudan, 17-26 Nov. 1985.
 - **11-2-11:** Technical Meeting on Uranium Resources and Geology of N. America, organized by IAEA, University of Saskatoon, Canada, 31 Aug. 4th Sept. 1987.
 - **11-2-12:** International Conference of Geo-scientific Research in North East Africa, (BTU) Berlin, 17 19 June, 1993.
 - **11-2-13:** The Second Scientific Conference National Center for Research Khartoum Sudan- Jan. 1995.
 - **11-2-14:** Seminar Presentation of Results of Special Research Project (SFB 69) Organized by GRAS & BTU in Khartoum Oct. 1995.
 - 11-2-15: Final Colloquium of the SFB-69, TU-Berlin.Dec.1995. .
 - **11-2-16**: The 30th International Geological Congress, Beijing, China 4-14 Aug. 1996.
 - **11-2-17**: Eleventh International Conference of the Geological Society of Africa Cape Town, South Africa, June -July1999.
 - **11-2-18:** First Meeting to Establish the Society of Faculties of Science, Union of the Arab Universities, Bahrain University at Kingdom of Bahrain Nov,1999.
 - **11-2-19:** Dubai International Conference on Desertification, United Arab Emirates Organized by Zayed International Prize for Environment, 12-15 Feb. 2000.
 - **11-2-20:** International Geological Conference, Uganda Geological Society and Geological Society of Africa, Kampala Uganda 2001.
 - **11-2-21:** Workshop on Scientific Research and Development in Technology, Foundation of Science and Technology (ASTF) Sharjah 2002.
 - **11-2-22:** Second Meeting of the Society of Faculties of Science, Union of Arab Universities, Amman, Jordan April 2004.
 - **11-2-23:** ThirdMeeting of the Society of Faculties of Science, Union of Arab Universities, Bahrain March 2005.
 - **11-2-24**: The first International Conference on Environmental Studies and Research "Natural Research & Sustainable Development "Environmental Studies and Research Institute MinufiyaUniversity Sadat Branch, 7-9 April 2008.
- **11-2-25**: Conference of Science and Technology on Nano Scale: Faculty of Science and Technology- Al Neelain University 2-3 November 2008.
- **11-2-26:** International Symposium on (Land Resources in Darfur the Challenge of Peace and Development, Oct.29.2008. Chairman of the sessions. Darfur Land commission and UNESCO &University of Computer man (UCM) (now Future University (FU), Khartoum Sudan.
- **11-2-27:** Eco-sustainability monthly Forum- Surface run off and Groundwater Modeling Using GIS and Remote Sensing in Northern Areas of Sudan. ImanGhunaim Boston Univ. (USA) 7 August 2008 -Chairman of the Forum.UNESCO with (UCM FU).

- **11-2-28:** Conference in Groundwater potentiality and development prospect in Sudan, 13 Jan. 2008. UNESCO Cousteau Ecotechnie Chair in(UCM-FU).Khartoum Sudan.
- **11-2-29:** The Second International Conference of Natural Recourses in Africa "Sustainable Development of Natural Resources in the Nile Basin Countries" 11-12-may 2009 Institute of African Studies, University of Cairo.
- **11-2-30:** The Second Annual Conference of Graduate Collage,(GCNU)10-11 Oct.2010.
- **11-2-31**: The First Meeting of the Advisory Committee of Ministry of Minerals, May, 2010 Khartoum, Sudan.
- **11-2-32:**Workshop on IndigenousGold Mining in the Sudan, Constrains and Solutions Friendship Conference Hall, Khartoum4-10-2010.
- **11-2-33**:Conference of Ministry of Minerals: on Mineralization of Arabian Nubian Shield, Potentialities of Mining in Sudan, 2011 Port Sudan.
- **11-2-34:** Presentation on the Potentialities of Mining in Sudan Sofia Bulgarian Chamber of Commerce and Industry, organized by Embassy of the Sudan in Bulgaria 18 July, 2011.
- **11-2-35:**The 12th Arab International Conference on Mineral Resources;organized by Ministry of Minerals and the Arab Industrial Development and Mining organization (AIDMO), Friendship Conference Hall, Khartoum, 27th-29th Nov, 2012.

11-3: Membership in Professional Local, Regional and International Scientific and Academic Unions, Associations, Societies and Organizations

- **11-3-1:** Council Member of the Sudanese Geological Society 1973 1984. Vice President (1984 1989).
- 11-3-2: Full Member of the Union of Arab Geologists since 1975.
- 11-3-3: Council Member of the Geological Society of Africa, (GSA) 1980-1884.
- **11-3-4**: Full Member of the International Association of Exploration Geochemistry.
- **11-3-5**: Fellow of the Royal Geological Society, London.
- **11-3-6**: Full Member of the Association of Geoscientists for International Development (AGID).
- **11-3-7**: Member of the Sudan Atomic Energy Commission State Member of International Atomic Energy Agency (IAEA).
- **11-3-8**: Full Member of the Center International de la Formation et de Exchange Geology (CIFEG).
- **11-3-9**: Member of the Editorial Advisory Board of "Discovery and Innovation". Journal of African Academy of Sciences (AAS) and the Third World Academy of Sciences (TWAS).

- **11-3-10**: Co-chairman of the Advisory and Technical Committee for the establishment of the Faculty of Applied Earth Sciences and Mining .University of Wadi Al Neel, Sudan, 1991.
- **11-3-11**: Member of the Committee of Mining Sector of the National Strategic plan, Sudan .Oct, 1991.
- **11-3-12**: Member of the Advisory Committees for Establishment of the Department of Mining Engineering (U. of K.) (1991) and Dept. of Mining and Mineral Engineering, Omdurman Islamic University, (1993).
- **11-3-13**: Chairman of the Advisory Committee to upgrade Faculty of Science to Science and Technology, Al Neelain University 1997.
- **11-3-14**: Chairman of the Advisory Committee to Upgrade the Faculty of Earth Science of the Red Sea University –Port Sudan 1998.
- **11-3-15**: Member of the Committee of Basic Sciences, Ministry of Higher Education and Scientific Research Sudan, since its establishment in 1997.
- **11-3-16**: Chairman of the Committee of Earth Sciences, Institute of Basic and Natural Sciences .Sudan, since its establishment-12th Oct 1998.
- **11-3-17**: Member of the Committee of Globalization in the Field of Basic Sciences, Ministry of Higher Education and Scientific Research , Sudan ,Since its establish in March 1999.
- **11-3-18**: Council Member of the Society of Faculties of Science, Union of Arab Universities, since its establishment Nov, 1999 up to 2005.
- **11-3-19:** Member in the Editorial Board of journal of the Association of Arab Universities for basic and Applied Sciences since 1998 up to now.
- **11-3-20**: Member of the Editorial Board of GCNU Journal –Graduate College Al Neelain University since 2010 up to now.
- **11-3-21:**Cordinator of Corporation Links of Al Neelain University withInternational Institutes and Organization (See No. 11-1 above)

12- Research Activities:

Research Activities are concentrated mainly in the following fields:

- 12-1: Economic Geology: Prospecting, Exploration, Estimates of Reserves, Feasibility Studies and MiningGeology. Special emphasis is given to:
 - -Lithochemical Methods to Prospect for Metallic Ore Deposits e.g. Au,U ...etc.
 - -Building Material, Dimension and Decorative Stones of Geological Nature.
 - -Industrial Rocks and Minerals.
 - -Upgrading of Curricula of Geosciences in National Institution.
- 12-2:Research in the above mentioned themes have been conducted mainly either within the framework of Joint Research Projects, Supervision of Postgraduate Students or as Consultancy Assignments:
 - **12-2-1**: Joint Research Projects:

- -The Nuba Mountains Geological Research project joint project between D. of G., U. of K. and Fac. of Engineering, Peoples Friendship University of Moscow (FE-PFUM) 1975-1990.
- Special Research project —Arid Areas Soudarfreschingsbereich "SFB 69" Joint Sudanese- German Research Project (1980-1995) participant and supervisor.
- -Assessment of the Natural Resources of the White Nile State.2003- 2007 (coordinator and supervisor).
- Assessment of National Geo -resources of Southern Kordofan State 2008 -2009 (Supervisor).
- Assessment of National Geo -resources of Darfur Region since 2005 (Member of the Advisory Committee).
- **12-2-2:** Research of Postgraduate Studies as specified in items No 10-2 above.

12-3: Research of Professional and Consultative Nature:

- These are mainly part of Feasibility studies for public and private sectors in the field of Applied and Economic Geology.
- **12-3-1:**Study of Marble and Limestone Deposits as Ores for Cement Industry (in White Nile, Red Sea, Blue Nile, Kassala, Northern and Southern Kordofan, Northern, Nile and Equatoria States.(with others)
- **12-3-2**: Quarrying and Cutting of Decorative Stones (granite and marble) in White Nile, Blue Nile, Red Sea Hills, Khartoum, Kassala, and Blue Nile States. (with others)
- **12-3-3**: Gold Mining Potentialities and Industry in Red Sea Hills, Equatoria, Nile, Northern, Blue Nile, Southern, Kordofan, Gadarif states. (with others)
- **12-3-4:** Potentiality of Gold Mining, in Hammash and DungashAreas, E. Desert, Egypt. May-June 2006-2010 (with Prof M. A. Alshargawi and D. Z. Al Affi).
- **12-3-5:** Potentiality of Gold Mining, inTassanai Region Eretria, 2012 (with Dr. S. A. Salih, BasheirAlobeid& M. I. Eltalier of MU).

12-4:Investment Researches for the Benefit of Universities:-

- **12-4-1:** Feasibility Study for marble and lime productions, Red Sea University.
- **12-4-2**: Project of the Manufactory of Chalk, Al Neelain University and Khartoum State Ministry of Education and Municipality (together with Dr Adam Musa and Dr. AmalSalih).

13- Discoveries and Findings:-

- **13-1**: Gold- bearing Quartz Veins in Gabeit and Aberkateib, areas 1971 (Part of Ph.D Thesis)
- 13-2: Kutum graphite deposit 1969 (during Ph.D field work)

- **13-3**: Nathilani –Lauru- gold deposits in Kapoita region, Equatoria State, 1974 (with Peter Ayoho& Peter Adok).
- **13-4**: El Ageed Iron deposits (Gossans?) Nuba Mountains, (with others of D of G U of K1978).
- **13-5**: Miri, El Ugheibishand Uro Uranium mineralization. Nuba Mountains(with other staff members of D of U of K), 1981-1985.
- **13-6**:Discovery and assessment of Badrier-Haloom (Derudeb Area), and Gadamaieb (Maman Area) meta- marl and marble deposits-Red Sea Hills, as ores suitable for cement industry (with A.H. El Nadi and Dr. S. A. Salih).
- **13-7**: Discovery of J. Marfaalngassana Hills, Blue Nile State as ore for cement and lime Industry (1994).
- **13-8**: Discovery of Marble Belt of Al Faki Al Mansouri Area for Cement Industry (with Dr.A.AlGailani, M. Y. Abdalgalil and Dr. AmalSalih).
- **13-9:** Discovery of Gossan Deposits and Polymetallic Sulphide Mineralization of JebalAhmerAin Area, White Nile State 1999 (with others of NU).
- **13-10:** Discovery of remnant gold –bearing quartez veins in Bauda Desert 2000-2006 and Nuba Mountains 2004 (with others of NU)
- **13-11**: Discovery of Fluorite mineralization The Northern parts of Nuba Mountains (with M. Y.AbdalaSalih of NU).

14: Experience In Academic Administrations:-

- **14-1:** Head Department of Geology, F. of Sc. U. of K (1982-1987).
- **14-2:** Coordinator of Scientific Agreements with Universities of the Eastern Block(then)1974-1995 (see 11-1 above).
- **14-3:** Member of the Senate of U. of K (1982-1987).
- 14-4: Academic Secretary Red Sea University 1995-1996.
- **14-5:** Dean, Faculty of Science and Technology, Al Neelain University (from 1st July 1997 up sept.2005).
- **14-6**: Member of the Senate of the Al Neelain University, since 1997 up to now.
- 14-7: Member of the Council of Al Neelain University since 1997-2010.
- **14-8:**Chairman of the Postgraduate Committee of the Science and Applied Sciences, Faculty of Postgraduate Studies, NU (1998-2003).

- **14-9:**Coordinator of the Scientific Links and Agreements with other Local, Regional and International Universities.(1997 up to now) (see 11-1)
- **14-10:**Chairman of the committee to upgrading School of Applied Earth Science, Al Neelain University to Faculty of Petroleum and Minerals Jan 2006.
- **14-11:**Consultant of the Vice Chancellor of Al-Neelain University in staff Affairs (2004-2010).

15- Publications:

- Total list consists of 70 Publications these are:-
- **15-1:** Proceedings of local, regional and international workshops, seminars and conferences. (33)
- **15-2:** Publications in local regional and international periodicals journals and selected topics of book series. (12)
- **15-3:** Professional Reports. (25)

15-1: Proceedings and presentations:

- **15-1-1:BADR EL DIN KHALIL, S.P. ALBOOL, 1976,** Geochemical Salt-SorptiveMethod in Mineral Exploration. Proceedings of the 3rd Conference on African Geology, Khartoum.
- **15-1-2:SHADDAD. M.Z.S.M. KROPACHEV, B.E. KHALIL, 1979**, Regional Geological Setting of the Nuba Mountains in Sudan. Fifth Conference on African Geology Published by Geological Survey of Egypt and Mining Authority Vol. IX.
- **15-1-3:BADR EL DIN KHALIL, 1982,** Geology and Mineral Deposits in the Precambrian Basement Complex of the Nuba Mountains, Sudan. Proceedings of the 6th Conference on African Geology, Dec. 1982, Nairobi, Kenya.
- **15-1-4: BADR EL DIN KHALIL, 1983,** Mineral Resources Potential in Africa. Presented in "Consultative Meeting of the United Nations University-Institute for Natural Resources in Africa (UNU INRA) Nairobi, Kenya.
- **15-1-5 BADR EL DIN KHALIL, 1984,** Zoning and Other Geochemical Parameters as Exploration Tools, the Sobaloka Wolfram and Cassiterite Deposits in Sudan. Proceedings of the 27th International Geological Congress, Aug. 1984, Moscow.
- **15-1-6: BADR EL DIN KHALIL,1985,** General Geological Features of the North Western Part of the Sudan. Proceedings of the International Workshop on Sand Transport and Desertification in Arid Lands, Khartoum, Sudan.
- 15-1-7: PARSLOW, G.R. BADR EL DIN KHALIL, A.K.HASSAN, 1991, Baseline Uranium Exploration Surveys and their Use in the Early Detection of Potential Natural Hazards: A case History from Sudan. Proceedings of a Technical Committee Meeting Jointly Organized by the International Atomic Energy Agency and the Nuclear Energy Agencyheld in Vienna, 26-29 August 1991.

- **15-1-8: BADR EL DIN KHALIL, 1993,** Geochemical Criteria to Prospect for Mineral Deposits in Crystalline Basement of the Sudan. Proceedings of the International Conference on Geoscientific Research in North East Africa. Berlin, Germany 17-19 June 1993. PP 521-528.
- **15-1-9: ABDEL RAHMAN, E.M.G. MATHEIS, B. KHALIL, M.A. KARFIS,** (**1993**),Ophiolite belts of Northern Sudan and their Potential Platinum Group Elements and Au (PGE/Au) Mineralization SEG Conference " Integrated Methods in Exploration and Discovery", Denves France.
- **15-1-10: BADR EL DIN KHALIL, 1995,** Gold Mining in the Sudan and the Impact on the Environment, 2nd Scientific Conference, National Centre for Research, Khartoum, Sudan.
- **15-1-11: BADR EL DIN KHALIL,** 1995, Education of Geoscientific Disciplines in the Sudan, Past, Present and Future Prospects.Seminar Presentation of Results of SFB 69, Organized by TUB- Berlin, GRAS Khartoum.
- **15-1-12: ABDEL RAHMAN & E.M.G. MATHEIS, and BADR EL DIN KHALIL1995,** Platinum Group Elements (PGE) in Ophiolitic Chromitities and Cumulate from Sudan, SFB 69, TUB GRAS, Khartoum-Berlin.
- **15-1-13: DENG MATIANIG KEER, BADR EL DIN KHALIL, 1995,**Quantitative Assessment of Lithochemical Criteria to Prospect for Gold in Blero, Qeissan Area, Blue Nile, SE Sudan, SFB 69, TU Berlin, Khartoum.
- **15-1-14: EL GIZOLI M. O., BADR EL DIN KHALIL, 1995,** Abu SamerVolcanogenic Massive Sulphides Geotectonic and Classification, SFB 69, TU Berlin GRAS Khartoum.
- **15-1-15: HUSSEIN M. A., G. MATHIES, BADR EL DIN KHALIL, 1995,** Application of Statistical Techniques to Gold Mineralization in Volcano Sedimentary Sequences of Ariab Area NE Sudan, SFB 69, TU Berlin, GRAS, Khartoum.
- **15-1-16: SALIH ALI SALIH, BADR EL DIN KHALIL, 1995,** Potentialities of Maman Marble and other Similar Deposits for Cement Industry and Related Building Materials. SFB 69 TU Berlin, GRAS, Khartoum.
- **15-1-17: BADR EL DIN KHALIL AHMED, A/BAGI GAILANI, MUSTAFA M. O., SALIH A. S., 1995,** Marble and Other Carbonates to Produce lime as a low cost Building Material and the Impact on the Environment, SFB-69. Tu-Berlin, GRAS, Khartoum.
- **15-1-18: BADR EL DIN KHALIL, 1995,** Potentialities of Gold Mining, in the Sudan, 6th Conference Arab Industry and Mining, Organized by (AIDMO), Damascus, Syria.
- **15-1-19: BADR EL DIN KHALIL, 1996,** Gold Mineralization in the Sudan and the Impact of its Mining on the Environment (Proceedings of the 30th International Geological Congress, Beijing China 4-14 Aug., 1996).
- **15-1-20: BADR EL DIN KHALIL, 1999,**Geochemical Criteria to Prospect for Gold in the Sudan, Proceedings of the 11th International GeolConference of Africa, Cape Town.

- **15-1-21: BADR ELDIN KHALIL, 2000,** Mining is a Significant Cause of Desertification; the Case of the Sudan. Proceedings of Dubai International Conference.on Desertification, Dubai U.A.E.
- **15-1-22: BADR ELDIN KHALIL, 2001,**Uranium Mineralization of the Nuba Mountains, Central Sudan a Natural Radioactive Hazard. Reg. Conf. of the Geol. Soc. of Uganda and Geol. Soc of Africa, Kampala, Uganda.
- **15-1-23:BADR EL DIN KHALIL,2002,** Experiment of Upgrading of the Faculty of Science to Faculty of Science and Technology Al Neelain University; Workshop of Scientific Research and Development of Technology in the Arab World,Arab Foundation of Science and Technology, Sharjah AFST.
- **15-1-24:** BADR ELDIN KHALIL AHMED & AZZA F.I. MOHARAM, 2008, Negative impacts on the Environment Due to Natural Go —Hazards and ManMade Activities-Sudan Case the 1st. International Conference on Natural Resources & Sustainable Development, Minofiya Univ. Sadat Branch, Egypt.
- **15-1-25:BADR ELDIN KHALIL AHMED & AZZA F.I. MOHARAM, 2009,** Georesources and Potentialities of Mining Industry in Relation to Sustainable Development in SudanSecond International Conference of "Sustainable Development of Natural Resources in the Nile Basin Countries, Inst. of African Studies, Cairo University.
- **15-1-26: BADR EL DIN KHALIL AHMED, 2010,**Impacts of Indigenous Gold Mining in Sudan. Workshop Ministry of Minerals, Friendship Conference Hall, Khartoum –Sudan.
- **15-1-27:BADR EL DIN KHALIL AHMED, AZZA F.I. MOHARAM, BASHIR ALOBEID, 2010,**Research in Geosciences: Obstacles and Challenges —Sudan .GCNU Second Annual Conference, Friendship Conference Hall, Khartoum —Sudan.
- **15-1-28:BADR EL DIN K.A. KHALIL AND ABDALGALIL,2011,** Road Map to Develop Mining Industry and to Upgrade Policies Governing Education, Training and Research in the Fields of Applied Geosciences, Regional Conference on Arabian Nubian Shield, organized by GRAS, Min. of Mining, Port Sudan.
- **15-1-29: HASSAN WARDI AND BADR EL DIN KHALIL, MARCH, 2004,** Abstract, Application of Solar Energy in Small Scale Mining For Sustainable Rural Development in Sudan The 8th Arab International Solar Energy Conf. & the Regional World Renewable Energy Congress, Kingdom of Bahrain.
- **15-1-30:BADR EL DIN KHALIL AHMED, 2011,** Geology, Geo-resources and Mining Potentialities in Sudan .Bulgarian Chamber of Commerce & Industry, Sofia.
- **15-1-31:MOHAMED ABDELWAHAB MOH. ALI, BURKHARDT H.&BADR EL DIN KHALIL, 2008,** Interpretation of Magnetic and Resistivity Imaging Surveys for Archaeological Prospecting in the Southern Part of Meroe City(Capital of Kush ,Sudan)Layers of Perception,Proceedings of the 35th Int.Conf.on Computer Applications and Quantitative Methods in Archeology (CAA) Berlin, Germany.
- **15-1-32:G.M.ISKANDAR &BADR EL DIN KHALIL, 1990,** Nuclear Waste Disposal –A Commentary .Manuscript (Unpublished), D of G,Uof K Sudan.

- **15-1-33:SAMI O. EL KHIDIR, IBRAHIM A.A.BABIKIR &BADR EL DIN K. AHMED, 2012,** Remote Sensing and GIS Investigations for Mineral Exploration in Bayuda Desert ,North Sudan .SAPEG 5th Conf.2012 ,Khartoum.
- 15-2: Journals, Periodicals and Book Series:
- **15-2-1: BADR EL DIN KHALIL (1969),** Graphite of Kutum Area-North of Darfur Province. Finding Report Submitted to the Director of Mineral Resources Department in 1969. Published in Sudan Notes and Records Vol. LX. Pp. 64-69.
- **15-2-2: ALMOND, D. C., FAROUK AHMED & BADR EL DIN KHALIL, 1969,** An Excursion to Bayuda Volcanic Field of Northern Sudan. Bull Volcanologique Tome XXX III 2., P. 549 565, Francisco Geannini&Figli, Napoli, Italy.
- **15-2-3: BADR EL DIN KHALIL, 1972,**Lithochemical Methods in Mineral Exploration in the Sudan. Record of Research No. 1, Dept. of Geology, Univ. of Khartoum, Sudan.
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(see list of Abbreviation attached) (Page 16)

Abbreviations

- B.Sc. (Hons): Degree of Bachelor of Science Honors.
- D of G: Department of Geology.
- F of G: Faculty of Science.
- U of K: University of Khartoum.
- Ph.D: Doctor of Philosophy.
- MSU: Musco State University.
- M.Sc: Degree of Master of Science.
- N U: Al Neelain University.
- BTU: Berlin Technical University.
- BFU: Berlin Free University.
- GRAS: Geological Research Authority of Sudan.
- C.A.E.S: Commission of Atomic Energy of Sudan.
- CIDA: Canadian International Development Agency.
- JU: Juba University.
- BHT: Beuth Technical High School Berlin.
- DAAD: German Academic Exchange Service.
- SFB-69: Special Research Project, German Sudan
- BDU: Bahr Dar University, Ethiopia.
- AGID: Association of Geoscientist for International Development
- IAEA: International Atomic Energy Agency.
- CIFEG: The Center of International de la Formation et Exchange.
- TWAS: Third World Academy of Sciences.
- GCNU: Graduate College Al Neelain University.
- MHESR: Ministry of High Education and Scientific Research.
- RSU: Red Sea University.
- (FPM NU): Faculty of Petroleum and Minerals, Al Neelain University.
- (FST NU): Faculty of Science and Technology, Al Neelain University.
- CMU: ComputerMan University, now Future University.
- FU: Future University.
- FE PFUM: Faculty of Engineering People's Friendship University of Moscow.
- BGM: Bader Geo Consultancy and Mining.