



Curriculum Vitae Professor Dr Donald Bruce Dingwell



Image: Private Source

Name: Donald Bruce Dingwell

Born: 29 June 1958

Research Priorities: geomaterials, experimental geosciences (geochemistry, geophysics, petrology, volcanology), silicate melts, kinetics and dynamics of magmatic processes, mechanisms and consequences of volcanic eruptions

Donald Bruce Dingwell is a Canadian-German geoscientist. He works in the field of experimental volcanology and primarily dedicates himself to the physical and chemical description of molten rock. Here, his emphasis is on rheology, diffusion, surface characteristics, strength and fragmentation.

Academic and Professional Career

- 2018 - 2019 Research Group Leader, Center of Advanced Studies, Ludwig-Maximilians-Universität (LMU) Munich, Munich, Germany
- 2017 - 2023 Gutenberg-Research Fellow, Johannes-Gutenberg-Universität Mainz, Mainz, Germany
- 2011 - 2013 Secretary-General, European Research Council (ERC)
- 2010 Visiting Professor, Scuola dottorale in Geodinamica Ambiente e Risorse, Università degli studi Roma Tre, Rome, Italy
- 2008 - 2011 LMUexcellent Professor of Experimental Volcanology, LMU Munich, Munich, Germany
- since 2002 Founding Director, Department of Earth and Environmental Science, LMU Munich, Munich, Germany
- since 2000 Chair of Mineralogy and Petrology, LMU Munich, Munich, Germany
- since 2000 Head, Section Mineralogy, Petrology und Geochemistry, LMU Munich, Munich, Germany

- 1991 - 2000 Scientific Manager, Bavarian Research Institute of Experimental Geochemistry and Geophysics (Bayerisches Geoinstitut), University of Bayreuth, Bayreuth, Germany
- 1992 Habilitation in Geochemistry, University of Bayreuth, Bayreuth, Germany
- 1987 - 1991 Deputy Director, Bavarian Research Institute of Experimental Geochemistry and Geophysics (Bayerisches Geoinstitut), University of Bayreuth, Bayreuth, Germany
- 1986 - 1987 Assistant Professor (Tenure-Track), Earth and Planetary Sciences, University of Toronto, Toronto, Canada
- 1984 - 1986 Carnegie Postdoctoral Fellow, Geophysical Laboratory, Carnegie Institution of Washington, Washington D.C., USA
- 1984 Ph.D. (Geology), University of Alberta, Edmonton, Canada
- 1980 - 1984 1967 NSERC Science Scholar, University of Alberta, Edmonton, Canada
- 1980 Bachelor of Science (B.Sc. hons.), (Geology/Geophysics), Memorial University of Newfoundland, St. John's, Canada
- 1980 Senior Field Assistant, Department of Mines and Energy, Memorial University of Newfoundland, St. John's, Canada
- 1978 - 1979 Explorationist, Esso Resources Offshore Drilling Office, St. John's, Canada
- 1977 Explorationist, Esso Resources Frontier Office, Calgary, Canada
- 1977 - 1977 Operator and Technician, Canadian Broadcasting Corporation (CBC), Corner Brook, Canada
- 1976 Announcer and Operator, CBC, Corner Brook, Canada

Functions in Scientific Societies and Committees (Selection)

- 2023 - 2026 Vice-President, Academia Europaea
- 2023 Organizer and Chair, Program Committee, Annual Meeting, Academia Europaea
- 2022 - 2024 Chair, Earth Sciences Units Evaluation, Foundation for Science and Technology (FCT), Lisbon, Portugal
- 2022 - 2023 Vice-Chair, Selection Board, Canada First Research Excellence Fund, Canada
- 2022 Evaluation Panel and Institutional Support, Associate Laboratories, FCT, Lissabon, Portugal
- 2022 Chair, Earth Sciences Individual Stimulus Call, FCT, Lisbon, Portugal
- 2022 President's Advisory Council Observer – Gravity and the Extreme Environment, Canadian Institute for Advanced Research (CIFAR), Canada

- 2022 Midterm Review, Real time monitoring of Hellenic Copper Mines Project, Research & Innovation Foundation (RIF), Cyprus
- 2022 Canvassing Committee, Volcanology, Geochemistry, and Petrology (VGP) Section, American Geophysical Union, USA
- 2022 Review Board, Institute of Geography and Geology, University of Greifswald, Greifswald, Germany
- 2022 External Advisory Board, Project "Digital Twin for GEOphysical extremes (DT-GEO)", Horizon Europe Infrastructure, European Commission
- 2021 - 2023 Chair, Scientific Advisory Board, German Research Centre for Geosciences GFZ, Potsdam, Germany
- 2021 Member, Earth & Environmental Sciences Individual Stimulus Call, FCT, Lisbon, Portugal
- 2021 Chair, Review Board, Faculty of Sciences, University of Zagreb, Zagreb, Serbia
- 2021 Chair, Arthur HOLMES Medal Committee, European Geosciences Union (EGU)
- 2021 Member, Review Panel, New Frontiers in Research Fund Multidisciplinary, Canada
- 2020 - 2023 President's Research Council, CIFAR, Canada
- 2020 - 2022 Proposal Reviews, National Center of Science and Technology Evaluation (NCSTE), Kazakhstan
- 2020 - 2021 Vice Chair, Mathematics and Physics I Panel, Czech Science Foundation, Czech Republic
- 2020 Member, Arthur HOLMES Medal Committee, EGU
- 2019 - 2020 Review Panel Geoscience, Serrapilheira Institute, Brazil
- 2019 - 2020 Physical Sciences Panel – Research Assessment Exercise (RAE), University Grants Committee (UGC), Hong Kong
- 2019 Earth & Atmospheric & Climate Change Panel, FCT, Lisbon, Portugal
- 2019 Mathematics and Physics I Panel, Czech Science Foundation, Czech Republic
- 2019 Presidential Search Committee, Academia Europaea
- 2019 International Assessment Panel – Global Call for Ideas, CIFAR, Canada
- 2018 - 2019 Member, WIDESPREAD Teaming Phase II Panel, European Union
- 2018 Earth & Atmospheric & Climate Change R&D Unit Evaluation, FCT, Lisbon, Portugal
- 2018 Mathematics and Physics I Panel, Czech Science Foundation, Czech Republic
- 2018 Chair, Evaluation Panel "Earth Sciences", Eidgenössische Technische Hochschule (ETH) Zurich, Zurich, Schweiz

- since 2017 Member, Board of Trustees, Deutsches Museum, Munich, Germany
- 2015 - 2019 President, International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)
- 2015 - 2016 Member, Expert Panel "Review of the Discovery Grants Program", Natural Sciences and Engineering Research Council of Canada (NSERC), Canada
- since 2015 Member, Development Board, American Geophysical Union (AGU), USA
- 2015 Member, European Academies Scientific Advisory Council (EASAC)
- 2015 Member, Selection Board, Canada First Research Excellence Fund, Canada
- 2015 Member, Geosciences Panel, FCT, Lisbon, Portugal
- 2015 Member, National Mid-Term Review, Laboratoires d'Excellence (LABEX), Agence nationale de la recherche (ANR), France
- 2015 Member, Croatian Accreditation Agency, Croatia
- 2014 Member, Global Call for Ideas International Assessment Panel, Canadian Institute for Advanced Research (CIFAR), Canada
- 2013 - 2014 Member, Presidential Search Committee, Academia Europaea
- since 2013 Member, Interdisciplinary Committee, World Cultural Council
- 2012 Member, Dutch Research Council (NWO), Netherlands
- 2011 - 2013 Elected President, European Geosciences Union (EGU)
- 2010, 2008 Member, Committee, Advanced Grant "Earth system science", European Research Council (ERC)
- 2008 - 2010 Member, Evaluation Board, National Volcanology Program, Istituto Nazionale di Geofisica e Vulcanologia (INGV), Italy
- 2007 - 2022 Editor, Chemical Geology
- 2007 - 2017 Chair, Scientific Advisory Council, Deutsches Museum, Munich, Germany
- 2005 - 2017 Member, Scientific Advisory Council, Deutsches Museum, Munich, Germany
- 2007 Member, Awards Committee, IAVCEI
- 2004 - 2005 Dean, Faculty of Geosciences, LMU Munich, Munich, Germany
- 2003 - 2007 Associate Editor, American Mineralogist
- 2003 - 2007 Founder and Editor, Experimental Earth – Virtual Journal
- 2002 Founding President, Section of Geochemistry, Mineralogy, Petrology and Volcanology, European Geosciences Union
- 2000 - 2010 Editor, Bulletin of Volcanology

1999 Secretary, Section of the Volcanology, Geochemistry and Petrology, AGU, USA

1995 - 2002 Associate Editor, *Geochimica et Cosmochimica Acta*

1994 - 1997 Director, Geochemical Society, Alexandria, USA

1993 - 2002 Editor, *Chemical Geology*

1991 - 1997 Associate Editor, *European Journal of Mineralogy*

Honours and Awarded Memberships (selection)

since 2024 Foreign Academician, Chinese Academy of Sciences

since 2023 Corresponding Member, Academia Mexicana de Ciencias, Mexico

2023 Gustav Steinmann Medal, German Geological Society (DGGV), Germany

2023 Honorary doctorate (D.Sc.), Simon Fraser University, Vancouver, Canada

2022 Willet G. Miller Medaille, Royal Society of Canada, Canada

2021 Member, Order of Newfoundland and Labrador, St. John's, Canada

since 2021 Fellow, Royal Society, UK

2021 Fellow, Institute of Advanced Studies, University of Durham, Durham, UK

2020 Abraham Gottlob Werner Medal, German Mineralogical Society (DMG), Germany

2020 Harry H. Hess-Medal, AGU, USA

2020 Officer, Order of Canada, Kanada

2020 Arthur Holmes Medal and Honorary Membership, EGU

2019 Honorary Doctorate (D.Sc.), Universidad Nacional Autónoma de México (UNAM), Mexico City, Mexico

2019 VIP Career Achievement Award, Geological Association of Canada (GAC), Canada

since 2017 Member, German National Academy of Sciences Leopoldina, Germany

since 2017 Fellow, American Association for the Advancement of Science (AAAS), USA

2016 Arthur Louis DAY Medal, Geological Society of America, USA

2016 Visiting Professor, Institut de Physique du Globe de Paris, Paris, France

2015 Martin A. PEACOCK Medaille, Mineralogical Association of Canada, Canada

2014 Otto Schott Research Award, Ernst Abbe Fund, Deutsches Stiftungszentrum, Essen, Germany

since 2013 Fellow, acatech – National Academy of Science and Engineering, Germany

2013 Honorary Fellowship, Società Italiana di Mineralogia e Petrologia, Italy

2013 Norman Levi Bowen Award, American Geophysical Union, USA

2013 Cross of the Order of Merit, Federal Republic of Germany

2012 Honorary Doctorate (D.Sc.), University College London, London, UK

2012 Honorary Doctorate (D.Sc.), University of Alberta, Edmonton, Canada

seit 2010 Fellow, Royal Society of Canada, Canada

2009 Fellow, AGU, USA

2008 - 2009 Distinguished Lecturer, Mineralogical Society of America, USA

2008 Robert Wilhelm Bunsen Medal, EGU

2007 Blaustein Visiting Professor, Stanford University, Stanford, USA

seit 2007 Fellow, Academia Europaea

2006 Presidential Visiting Professor, California Institute of Technology (Caltech), Pasadena, USA

1998 Fellow, Geological Association of Canada, Canada

1996 MSA Award, Mineralogical Society of America (MSA), USA

1995 Fellow, Mineralogical Society of America, USA

1993 - 1998 Gerhard Hess Research Award, Deutsche Forschungsgemeinschaft (DFG), Germany

1991 Victor Moritz Goldschmidt Award, DMG, Germany

1984 - 1986 Fellowship, Carnegie Institution of Washington, Washington D.C., USA

1980 - 1984 1967 Science Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC), Canada

1980 Undergraduate Thesis Award, Canadian Institute of Mining and Metallurgy (CIMM), Canada

1980 University Medal for Academic Excellence

1979 Trophy, Canadian Society of Petroleum Geologists, Canada

1979, 1978 Scholarship, Falconbridge Nickel Mine, Toronto, Canada

1979 Alexander Murray Geological Trophy, Canada

1978 Undergraduate Award, Canadian Society of Petroleum Geologists, Canada

1977 Scholarship, Iron Ore Company of Canada, Montreal, Canada

1976 Newfoundland Centenary Scholarship, Government of Newfoundland and Labrador, Canada

- 1975 Newfoundland Electoral District Scholarship, Government of Newfoundland and Labrador, Canada
- 1975 High School Award, Canadian Association of Physicists, Canada
- 1974 Newfoundland Centenary Scholarship, Government of Newfoundland and Labrador, Canada

Research Priorities

Donald Bruce Dingwell is a Canadian-German geologist. He works in the field of experimental volcanology and primarily dedicates himself to the physical and chemical description of molten rock. Here, his emphasis is on rheology, diffusion, surface characteristics, strength and fragmentation.

Donald Dingwell and his team are dedicated to the study of the hazards and risks of volcanoes and volcanic eruptions. Through experimental investigation of the physical properties of volcanic systems, Donald Dingwell wants to understand how volcanoes function and what triggers an eruption. Towards this end, the conditions that correspond to the interior of volcanoes are recreated in the laboratory. The products are then experimentally characterised. His insights are central to the development of our knowledge of geomaterials (silicate melts, magmas, and glasses) as well as to the kinetics and dynamics of volcanic systems and eruptions.