ALEXANDER NORMAN HALLIDAY

CURRICULUM VITAE [1]

EDUCATION

1977	Ph.D. Physics, University of Newcastle-upon-Tyne
1973	B.Sc. Honours Geology, University of Newcastle-upon-Tyne

CAREER AND MAIN PROFESSIONAL LEADERSHIP ROLES

2018-present	COLUMBIA UNIVERSITY, NEW YORK
2023-present	The Columbia Climate School, Founding Dean Emeritus
2018-present	Department of Earth and Environmental Sciences, Professor
2021-2023	The Columbia Climate School, Founding Dean
2018-2023	The Earth Institute, Director
2014-2018	ROYAL SOCIETY
	Vice-President (Physical Sciences Secretary) [2]
2004-present	UNIVERSITY OF OXFORD
2023-present	Oxford Martin School, Visiting Fellow
2018-present	Department of Earth Sciences, Visiting Professor
2012-2018	Wadham College, Professorial Fellow
2012-2018	Department of Earth Sciences, Research Professor
2007-2015	Mathematical, Physical and Life Sciences Division, Head
2004-2012	St. Hugh's College, Professorial Fellow
2004-2012	Department of Earth Sciences, Chair of Geochemistry
2006-2012	AMERICAN GEOPHYSICAL UNION
	Volcanology, Geochemistry and Petrology Section, President-elect, President, past-President

[1] In reverse chronological order except for grants and publications

[2] This role comes with *ex-officio* membership and chairing roles for a number of Royal Society committees not itemised in this cv

1998-2004	ETH ZÜRICH
2003-2004	Department of Materials, Associate Member
2002-2004	Department of Earth Sciences, Head of Department
2001-2004	Institute of Isotope Geology and Mineral Resources, Head
1998-2004	Department of Earth Sciences, Professor
2003-2010	EUROPEAN ASSOCIATION OF GEOCHEMISTRY
	Vice-President, President, past-President
1993-1999	THE GEOCHEMICAL SOCIETY
	Vice-President, President, past-President
1976-1998	EARLIER POSITIONS
1993	University of Cambridge, Clare Hall, Visiting Fellow
1986-1998	University of Michigan, Department of Geological Sciences, Associate and Full Professor
1981-1986	Scottish Universities Research and Reactor Centre, University Lecturer
1976-1981	Scottish Universities Research and Reactor Centre, Postdoctoral Researcher

TRUSTEESHIPS, BOARDS AND LONG-TERM COMMITTEE ROLES

2024-present	Committee on Benefactions and External and Legal Affairs, Cambridge University, Deputy Chair
2023-present	University of Cambridge, Council, External Member
2023-present	École Polytechnique, Paris, Climate Advisory Board
2018-present	Carnegie Science, Scientific Advisory Council
2016	Advisory Committee on Mathematics Education (ACME) U.K., Chair
2015-2018	Museum of the History of Science, Oxford, Board of Visitors, Chair
2012-2018	Wadham College, Oxford, Governing Body member
2011-2018	Royal Society, Council member
2006-2014	Natural History Museum, London, Trustee
2006-2012	American Geophysical Union, Council member
2005-2007	N.E.R.C. Strategy sub-group
2004-2012	St. Hugh's College, Oxford, Governing Body member
2004-2011	Natural Environment Research Council, Council member
2003-2010	European Association of Geochemistry, Council member, (Chair 2006-2008)
2002-2003	N.E.R.C. Science and Innovation Strategy Board
2001-2009	Max-Planck-Institut für Chemie, Mainz, Advisory Board (Fachbeirat)
2001-2003	l'Institut de Physique du Globe de Paris, Conseil Scientifique
2000-2002	N.E.R.C. Science and Technology Board
1999-2003	C.N.E.S. Scientific Committee for Mars Sample Return Mission
1993-1999	Geochemical Society Board member (Chair 1995-1997)

SCIENTIFIC SOCIETIES – OTHER COMMITTEES

2017-2018	U.S. National Academy of Sciences, J. Lawrence Smith Medal Committee
2016-2017	U.S. National Academy of Sciences, Arthur L. Day Prize and Lectureship Committee
2014	Royal Society, Hooke Committee (*ex-officio* from 2015)
2009-2010	European Association of Geochemistry, Houtermans Medal Committee (Chair)
2007-2008	European Association of Geochemistry & Geochemical Society, Fellows Committee
2006-2008	American Geophysical Union, Nominations Committee

2004-2006	American Geophysical Union, VGP Section, Fellows Committee (Chair)
2003-2004	European Geosciences Union, Fellows Nomination Committee
2002-2005	Royal Society, Swiss Representative to Council
2001-2004	Royal Society, Sectional Committee 5
2000-2003	Geochemical Society, Clarke Medal Committee
2000-2002	American Geophysical Union, VGP Section, Macelwane Medal Committee (Chair)
1999-2003	European Union of Geosciences, Honorary Fellows Nomination Committee
1997-1998	Geochemical Society, Patterson Medal Committee (Chair)
1996-2006	European Association of Geochemistry, Urey Medal Committee (3 times, once as Chair)
1995-1999	IUPAC, Commission on Atomic Weights

MAIN CONFERENCE ORGANISATION

2016	Commonwealth Science Conference, Singapore
2014	Commonwealth Science Conference, Bangalore
2013	Origin of the Moon - Royal Society Discussion Meeting, London
2007	Differentiation of the early Earth - Royal Society Discussion Meeting, London
2002	Goldschmidt Conference, European Assoc. Geochemistry, Davos
1998	Origin of the Earth and Moon Conference, Lunar & Planetary Inst., Monterey

EDITING AND PUBLICATIONS

2001-2003	*Science*, Board of Reviewing Editors
1999-2007	*Earth and Planetary Science Letters*, Editor
1994-1998	*Earth and Planetary Science Letters*, Editorial Advisory Board
1994-1996	American Geophysical Union, Publications Committee
1990-1995	*Geochimica et Cosmochimica Acta*, Associate Editor

FUNDING PANELS

2016	L'Oreal-UNESCO UK & Ireland National Fellowships for Women in Science
2014	Swiss SNF Starting Grants following withdrawal of access to E.R.C.
2010-2011	Royal Society Research Committee
2005-2008	H.E.F.C.E., Research Assessment Exercise (RAE) 2008 Sub-panel 17 - Earth Systems and Environmental Systems
2000	N.S.F. Earth Sciences, C.S.E.D.I. Program
1999-2001	Wellcome Trust – N.E.R.C. Joint Infrastructure Fund Advisory Board
1997-1998	N.A.S.A. Origins of Solar Systems Program
1991-1994	N.S.F. Earth Sciences, Instrumentation and Facilities Program

GOVERNMENT AND INSTITUTIONAL EXTERNAL REVIEWS AND STRATEGIC ADVISORY GROUPS

2020	Penn State University, Earth and Environmental Systems Institute, External Review
2016	Stanford University, Geological and Environmental Sciences, External Review
2016	Department for Business, Innovation and Skills (BEIS), Review of the UK's Research Excellence Framework (Stern Review), Steering Group
2015-2016	National Physical Laboratory, Laboratory for the Government Chemist, and National Fluids Laboratory, UK, External Review Board
2013	N.E.R.C. Research Centre Ownership and Governance External Advisory Panel
2013	University of Hong Kong, Faculty of Sciences, External Review
2010	Stanford University, Geological and Environmental Sciences, External Review

2010	Government Office for Science - Scientific Advisory Group for Emergencies - Icelandic volcanic eruption
2010	Government Office for Science – Review of use of science and technology in decision-making and policy in the Department for Business, Innovation and Skills
2009	University College London, Earth Sciences, External Review (Chair)
2008	Natural History Museum London, Department of Mineralogy, External (Chair)
2006	Physical Research Laboratory, Ahmedabad, India, External Review (Chair)
2005-2007	Royal Society, Higher Education Working Group (leading to publication of "A Degree of Concern" and "A Higher Degree of Concern")
2003	University of Oxford, Earth Sciences, External Review
2003	Carnegie Institute of Washington, Department of Terrestrial Magnetism External Review
1999	Woods Hole Oceanographic Institution. External Review
1998	Carnegie Institute of Washington, Department of Terrestrial Magnetism External Review
1997	N.S.E.R.C. review of GEOTOP, Montreal
1988-1991	N.R.C. Decadal Review of Status and Research Objectives in the Solid-Earth Sciences [3]

APPOINTMENT AND PROMOTION COMMITTEES [4]

2022-2023	Founding Director, Columbia Center for Climate and Health, Mailman School
2019-20	Royal Society, President
2019	Natural History Museum, London, Director of Science
2017	HEFCE, Chairs of REF2021 Main Panels A and B
2014-2015	Oxford University, Vice-Chancellor
2008-2013	Natural History Museum, London, Senior Staff Remunerations Committee (Chair)
2007	Open University, Chair of Environmental Isotope Geochemistry
2006	Edinburgh University, Regius Chair of Geology
2005-2011	N.E.R.C. Senior Scientists Salary Review Board
2005-2006	British Geological Survey, Director
2001- 2004	E.T.H. Faculty Tenure Committee
2000	Open University, Chair of Isotope Geology
1994-1997	University of Michigan, College of Literature, Science and Arts, Faculty Promotions Committee

MAJOR INTERNAL UNIVERSITY COMMITTEES (EXCLUDING DEPARTMENTAL COMMITTEES)

Columbia University

2023-present	Climate Hub Technical Advisory Committee, Columbia Global Center, Rio de Janeiro
2020-2024	Faculty Advisory Committee of Columbia Global Center, Beijing
2020	President's Fourth Purpose Task Force
2020-present	Data and Society Council, Data Science Institute
2019	President's Climate Task Force (Chair)
2018-2023	Columbia Climate Board of Advisors

Oxford University

2011-2018	Museums Board
2009-2013	KAUST Oxford Centre for Collaborative Applied Mathematics – International Advisory Board (Chair)
2009-2011	Smith School of Enterprise and the Environment - Management Committee
2009-2011	Honorary Degrees Committee

[3] contributor only

[4] Excludes both departmental roles and many *ex-officio* roles as Head of MPLS, Oxford

2008-2014	Research Committee
2007-2015	Planning and Resources Allocation Committee
2007-2015	Personnel Committee
2007-2015	Oxford Martin School Management Committee
2007-2015	General Purposes Committee of MPLS (*ex-officio* Chair)
2007-2015	General Purposes Committee of Council
2007-2015	Council
2007-2011	Full economic cost overhead (FEC) Advisory Committee
2005-2015	MPLS Divisional Board (*ex-officio* Chair from 2007)

E.T.H. Zürich

2003- 2004	IDEA League (Imperial College, Delft, Aachen, E.T.H.) Earth sciences working group (Chair)
2002-2004	Centre for the Earth, Environment and Natural Resources, Project Executive Committee

University of Michigan

1991-1992	Inter-Collegiate Materials Advisory Committee
1989-1990	Rackham Research Partnership Program Committee
1988-1998	Faculty Executive Committee, Ford Nuclear Reactor

HONOURS

2023	Honorary Degree (D.Sc.) University of St. Andrews
2020, 2021	New York City and State Energy & Environment Power 100
2019	Knight Bachelor, H.M. the Queen, for services to science and innovation
2019	Lobanov-Rostovsky Lecture, Oxford University
2017	Member, Academia Europaea
2016	Harry H. Hess Medal, American Geophysical Union
2016	Named professorship "Alexander N. Halliday Collegiate Professorship" (awarded to Professor Rebecca Lange), University of Michigan
2015	Oxburgh Medal, Institute of Measurement and Control
2015	International Member, U.S. National Academy of Sciences
2014	Harold Jeffreys Lectureship, Royal Astronomical Society
2014	Vice-President (Physical Secretary), Royal Society
2014	The McDonnell Distinguished Lecture, Washington University, St Louis
2012	Urey Medal, European Association of Geochemistry
2010	European Research Council Advanced Fellow
2009	Rupert Wildt Lecturer, University of Yale
2008	President, VGP Section, American Geophysical Union
2008	Honorary Research Fellow, Natural History Museum, London
2008	Fellow of the Meteoritical Society
2008	Daly Lecturer, American Geophysical Union
2007	Royal Society-Wolfson Research Merit Award
2006	Scott Simpson Lecturer, Ussher Society
2006	Murchison Medal, Geological Society
2005	President, European Association of Geochemistry
2003	Hallimond Lecturer, Mineralogical Society
2002	ISI Most Highly Cited Author
2001	Fellow of the Institute of Physics
2001	Fellow of the Geochemical Society and European Association of Geochemistry
2000	Fellow of the Royal Society
2000	Fellow of the American Geophysical Union

1998	Bowen Award, American Geophysical Union
1997	Mineralogical Association of Canada Distinguished Lecturer Tour
1995	President, the Geochemical Society
1995	College Award for Excellence in Research, University of Michigan
1993	Life Fellow, Clare Hall, University of Cambridge
1993	College Award for Excellence in Teaching, University of Michigan
1992	Alumni Award for Excellence in Teaching and Research, University of Michigan
1976	Microwave Instruments Research Prize, University of Newcastle-upon-Tyne

PEER-REVIEWED RESEARCH GRANTS (P.I. DENOTES PRINCIPAL INVESTIGATOR)

1980	Isotope geology facilities for the Scottish Universities N.E.R.C. (*contributor*)	~ £	1,000,000
1981	The effects of the crust on the contamination, differentiation and emplacement of granite magmas N.E.R.C. (*first p.i.*)	£	12,000
1982	Travel grant for China - Japan - U.S.A. Royal Society of London (*sole p.i.*)	£	800
1984	Travel grant for U.S.A. Carnegie Trust (*sole p.i.*)	£	600
1985	Radiogenic isotope geology facilities for the Scottish Universities N.E.R.C. (*first p.i.*)	£	220,000
1986	Supplement to above N.E.R.C. (*first p.i.*)	£	1,200
1986	Acquisition of a mass spectrometer for radiogenic isotope geochemistry N.S.F. (*sole p.i.*)	$	125,000
1987	Isotopic studies of the origin of the Cameroon line magmas N.S.F. (*first p.i.*)	$	128,400
1987	Isotopic ages and signatures for strategic mineralization Michigan Memorial Phoenix Project (U-M) (*sole p.i.*)	$	4,339
1987	Isotopes, strategic sampling and the mantle Scott Turner Fund (U-M) (*sole p.i.*)	$	2,850
1987	Microsampling of fluid and melt inclusions for isotopic analysis Office of the Vice President for Research (U-M) (*sole p.i.*)	$	16,360
1988	Visiting professorship for women at the University of Michigan for isotopic studies investigating the petrogenesis of continental rhyolitic magmas N.S.F. (*host institution sponsor for Gail Mahood*)	$	87,709
1988	Evolution of the Grenville terrane in Ontario N.S.F. (*co-p.i.*)	$	143,139
1988	Microsampling and integrated isotopic studies of ore deposits N.S.F. (*first p.i.*)	$	125,085
1988	The direct dating of fossils Scott Turner Fund (U-M) (*first p.i.*)	$	1,970
1988	Sm-Nd and Rb-Sr isotopic studies of modern and fossil salmonids: evolution of life history characteristics and the river flux of Nd and Sr Scott Turner Fund (U-M) (*co-p.i.*)	$	1,650
1988	Proposal for research partnership between Alex Halliday and Paul Koch H.H. Rackham School of Graduate Studies (*co-p.i.*)	$	11,478
1990	Isotopic studies of the origin of the Cameroon line N.S.F. (*first p.i.*)	$	58,000

1990	New isotopic approaches to hydrothermal ore deposits N.S.F. (*first p.i.*)	$	130,000
1990	Rb-Sr chronometry of magma differentiation N.S.F. (*first p.i.*)	$	130,000
1990	Radiogenic isotopic studies of diagenesis and low-grade metamorphism of pelites N.S.F. (*co-p.i.*)	$	95,000
1990	Age and stable isotopic evolution of Mississippi Valley Type Mineralization N.S.F. (*co-p.i.*)	$	159,107
1991	Technical support for the mass spectrometers in the Radiogenic Isotope Geochemistry Laboratory, University of Michigan N.S.F. (*sole p.i.*)	$	90,000
1991	Turner Seminar Series Scott Turner Fund (U-M) (*sole p.i.*)	$	2,500
1992	Paleomagnetism and geochronology of Precambrian rocks, Tanzanian Craton, east Africa N.S.F. (*co-p.i.*)	$	130,000
1992	Applications of radiogenic isotope geochemistry to studies of igneous and hydrothermal processes N.S.F. (*sole p.i.*)	$	550,500
1992	Laser enhanced plasma microwave isotope separation D.O.E. (*co-p.i.*)	$	120,000
1993	Geochemical and isotopic characterization of eolian dust N.S.F. (*co-p.i.*)	$	90,000
1993	U-Pb dating of carbonates N.S.F. (*co-p.i.*)	$	95,000
1993	Radiogenic isotopic study of diagenesis and low-grade metamorphism in pelites N.S.F. (*co-p.i.*)	$	160,000
1993	Acquisition of inductively coupled plasma magnetic sector multi-collector mass spectrometer N.S.F. (*first p.i.*)	$	412,500
1993	Laser enhanced plasma microwave isotope separation D.O.E. (*co-p.i.*)	$	316,522
1993	Applications of ICP magnetic sector mass spectrometry to basic energy research D.O.E. (*first p.i.*)	$	529,237
1994	Continued technical support for the mass spectrometers in the Radiogenic Isotope Geochemistry Laboratory, University of Michigan N.S.F. (*first p.i.*)	$	80,000
1994	Development of ICP magnetic sector multi-collector mass spectrometry. N.S.F. (*sole p.i.*)	$	150,000
1995	Dating sediments from the pelagic clay province: An evaluation of the preservation of seawater Sr isotopes in fish teeth N.S.F. (*co-p.i.*)	$	37,088
1995	Isotopic and trace element studies of igneous and hydrothermal processes N.S.F. (*first p.i.*)	$	75,000
1995	High-resolution geochronology and laser micro-sampling using MC-ICPMS N.S.F. (*first p.i.*)	$	330,993
1995	Combined noble gas and stable isotope constraints on nitrogen gas sources in sedimentary basins D.O.E. (*co-p.i.*)	$	209,021
1995	Acquisition of a new HPLC system suitable for the separation and determination of inorganic ions Office of the Vice President for Research and College of L.S.&A. (U-M) (*first p.i.*)	$	32,000

1995	Application of MC-ICPMS to the measurement of isotopic anomalies in Zr, Mo, Ru, Sn, Te and W N.A.S.A. (*first p.i.*)	$	90,000
1996	Chalcophile and siderophile elements in the inner solar system N.S.F. (*first p.i.*)	$	193,076
1997	Collaborative research on the history of degassing and differentiation of Bishop Tuff rhyolitic magma N.S.F. (*co-p.i.*)	$	195,000
1997	Applications of ICP magnetic sector mass spectrometry to basic energy research D.O.E. (*first p.i.*)	$	666,949
1997	Noble gases and the origin of HIMU N.S.F. (*co-p.i.*)	$	75,000
1997	Improvements to mass spectrometers and associated equipment in the RIGL N.S.F. (*first p.i.*)	$	100,000
1997	Application of MC-ICPMS to the measurement of isotopic anomalies in Zr, Mo, Ru, Sn, Te and W N.A.S.A. (*first p.i.*)	$	120,000
1999	Applications of multiple collector inductively coupled plasma mass spectrometry to earth, environmental and planetary sciences Swiss National Science Foundation (*sole p.i.*)	sFr	585,055
2000	^{99}Tc, ^{126}Sn and the origin of the sun ETH Forschungskommission (*first p.i.*)	sFr	120,000
2000	Helium migration in subsurface environments Swiss National Science Foundation (*co-p.i.*)	sFr	60,000
2000	The behavior of Os in estuaries and ocean waters ETH Forschungskommission (*co-p.i.*)	sFr	174,500
2001	Climate forcing and the timing of past sea-level changes ETH Forschungskommission (*co-p.i.*)	sFr	148,000
2001	Thallium isotope variations in terrestrial materials and meteorites ETH Forschungskommission (*co-p.i.*)	sFr	99,545
2001	Applications of multiple collector inductively coupled plasma mass spectrometry to earth, environmental and planetary sciences Swiss National Science Foundation (*sole p.i.*)	sFr	659,720
2001	Sea-level, Temperature and Ocean circulation, Past and Future: a European Network (STOPFEN) European Union Framework 5 (*first p.i.*) [5]	sFr	1,751,853
2002	Reconstruction of changes in ocean circulation and continental weathering using radiogenic isotopes in marine sediments ETH Forschungskommission (*co-p.i.*)	sFr	135,000
2002	Iron isotope fractionation in soils – from phenomena to process identification ETH Forschungskommission (*co-p.i.*)	sFr	169,000
2002	Goldschmidt 2002: The geochemistry conference, from stars to life Swiss National Science Foundation (*co-p.i.*)	sFr	22,000
2002	Goldschmidt 2002: The geochemistry conference, from stars to life Swiss National Science Foundation (SCOPES) (*sole p.i.*)	sFr	8,500
2002	Probing the Cd Proxy - Studies of Cd/Ca in in-situ sampled planktic foraminifera and Cd isotope variations in seawater Swiss National Science Foundation (*co-p.i.*)	sFr	140,316

[5] Resources shared between six European partner institutions. With delays in the ratification of the EU-Switzerland treaty the coordination moved to Cambridge

2003	Applications of multiple collector inductively coupled plasma mass spectrometry to earth, environmental and planetary sciences Swiss National Science Foundation (*sole p.i.*)	sFr	650,102
2003	Development of negative ion thermal ionization mass spectrometry of tungsten and its application to the origins of planets ETH Forschungskommission (*first-p.i.*)	sFr	137,200
2003	Latsis Symposium for 2005 on Life in the Universe ETH Vice President for Research (*first-p.i.*) [6]	sFr	45,000
2004	PLANET-Z - A proposal to establish a network for planetary sciences at ETH Zürich ETH Schulleitung, (*first-p.i.*) [7]	sFr	750,000
2005	SELENIUM – Marie Curie Fellowship for Dr. Thorsten Kleine European Union Framework 6 (*host institution sponsor*)	€	160,000
2005	Probing paleoclimate proxies - Studies of Cd/Ca, Mg/Ca and Ba/Ca in in-situ sampled planktic foraminifera and Cd isotope variations in seawater Swiss National Science Foundation (*co-p.i.*)	sFr	92,473
2005	Applications of multiple collector inductively coupled plasma mass spectrometry to earth, environmental and planetary sciences Swiss National Science Foundation (*co-p.i.*)	sFr	297,761
2005	High-resolution isotope ratio inductively-coupled plasma mass spectrometry at the University of Oxford University of Oxford Research Development Fund (*sole-p.i.*)	£	120,000
2006	Isotopic studies of solar system formation and early development. PPARC (*sole p.i.*)	£	763,687
2007	Isotopic studies of metals in organic compounds. Petrobras (*sole p.i.*)	£	545,485
2007	Supernova explosion or colliding cosmic clouds: reconciling the origin of our solar system New Zealand Marsden Fund (*co-p.i.*)	NZ$	330,000
2007	Quantum coherence: Joint proposal for optimising UK capacity and capability EPSRC (*first-p.i.*) [8]	£	1,812,081
2008	A δ^{30}Si isotopic view on the climatic role of diatoms: driver or feedback? NERC (*co-p.i.*)	£	353,030
2008	Isotopic studies of early planetesimals and planetary embryos STFC (*first-p.i.*)	£	271,435
2009	Planetary origins and development STFC (*first-p.i.*)	£	1,695,950
2009	New detectors for measuring low abundance isotopes with MC-ICPMS Royal Society Theo Murphy Blue Skies Award (*sole-p.i.*)	£	105,634
2010	New Isotope Systems for the Geosciences European Research Council Advanced Fellowship (*sole-p.i.*)	€	2,347,355
2010	CLEIO – the Chemistry of Life and the Environment Initiative at Oxford James Martin 21st Century School (*first-p.i.*) [9]	£	588,000
2010	The Geochemistry Laboratories within the new Earth Sciences Building Wolfson Foundation (*sole-p.i.*) [10]	£	1,250,000
2012	The Oxford MRC Confidence in Concept Partnership [14] Medical Research Council (co-*p.i.*)	£	750,000

[6] Funding returned with move from ETH to Oxford.

[7] Resources shared to support new initiatives in four ETH departments. Funding returned with move to Oxford.

[8] On behalf of MPLS, Oxford University

[9] Resources shared with others in Oxford University

[10] On behalf of the Department of Earth Sciences, Oxford University

2015	Planetary origins and development STFC (*first-p.i.*)	£	672,892
2016	Autochemistry for high precision isotopic analysis Oxford Science Innovation (OSI) (*first-p.i.*)	£	22,000
2016	Measuring trace elements and associated proteins for detection of pancreatic cancer Pancreatic Cancer Action (co-*p.i.*)	£	39,675
2016	Isotopic fractionation of transition metals during cancer growth John Fell Fund, Oxford (*first-p.i.*)	£	99,904
2021	Designing new materials for efficient chemical and electrochemical separation of ^{6}Li and ^{7}Li RISE Award, Columbia University (*co-p.i.*)	$	160,000
2021	Scalable enrichment of ^{48}Ca at the solid / liquid interface by chemical and electrochemical methods US Department of Energy (*co-p.i.*)	$	389,999
2022	Columbia University and Northern Plains Partnership for the Superfund Research Program US National Institutes of Health (*co-p.i.*)	$	9,381,876
2023	Metallomics MISSION: A comprehensive assessment of Metals, ISotopes and SpeciatioN as disease biomarkers and therapeutic targets Columbia University CTSA Hub Pilot Grant (*co-p.i.*)	$	100,000
2024	Liquid centrifuge-based isotope separation of ^{7}Li, ^{37}Cl and D US Department of Energy (*co-p.i.*)	$	599,999

MAIN PUBLICATIONS (NO ABSTRACTS)

1976

1. **Halliday, A.N.** and Mitchell, J.G. 1976 Structural, K-Ar and ^{40}Ar-^{39}Ar age studies of adularia K-feldspars from the Lizard Complex, England. *Earth Planet. Sci. Lett.* 29, 227-237.
2. Mitchell, J.B. and **Halliday, A.N.** 1976 Extent of Triassic/Jurassic hydrothermal ore deposits on the north Atlantic margins. *Trans. Instn. Min. Metall. Sect. B.* 85, B159-B161.

1977

3. **Halliday, A.N.** 1977 K-Ar dating of mineralisation episodes - a discussion. *Econ. Geol.* 72, 870-871.
4. **Halliday, A.N.**, McAlpine, A. and Mitchell, J.G. 1977 The age of the Hoy Lavas, Orkney. *Scott. J. Geol.* 13, 43-52.

1978

5. **Halliday, A.N.** 1978 ^{40}Ar-^{39}Ar stepheating studies of clay concentrates from Irish orebodies. *Geochim. Cosmochim. Acta* 42, 1851-1858
6. van Breemen, O., **Halliday, A.N.**, Johnson, M.R.W. and Bowes, D.R. 1978 Crustal additions in Late Precambrian times. In: Leake, B.E. and Bowes, D.R. (eds), *Crustal Processes and Evolution in N.W. Britain and Adjacent Regions.* Geol. J. Spec. Iss., 81-106.

1979

7. **Halliday, A.N.**, Aftalion, M., van Breemen, O. and Jocelyn, J. 1979 Petrogenetic significance of Rb-Sr and U-Pb isotopic systems in the ca 400 Ma old British Isles granitoids and their hosts. In: Harris, A.L., Holland, C.H. and Leake, B.E. (eds.), *The Caledonides of the British Isles - Reviewed*. Geol. Soc. Lond. Spec. Pub., 753-662.
8. Stephens, W.E. and **Halliday, A.N.** 1979 Compositional variation in the Galloway plutons. In: Atherton, M.P. and Tarney, J. (eds.), *The origin of granite batholiths - geochemical evidence*. Shiva, 9-17.
9. Titterington, D.M. and **Halliday, A.N.** 1979 On the fitting of parallel isochrons and the method of maximum likelihood. *Chem. Geol.* 26, 183-195.

1980

10. Bluck, B.J., **Halliday, A.N.**, Aftalion, M. and Macintyre, R.M. 1980 Age and origin of Ballantrae ophiolite and its significance to the Caledonian orogeny and Ordovician time scale. *Geology* 8, 492-495.
11. Clarke, D.B. and **Halliday, A.N.** 1980 Strontium isotope geology of the South Mountain Batholith, Nova Scotia. *Geochim. Cosmochim. Acta* 44, 1045-1058.
12. **Halliday, A.N.** 1980 The timing of early and main stage ore mineralisation in S.W. Cornwall. *Econ. Geol*. 75, 752-759.
13. **Halliday, A.N.**, Aftalion, M. and Leake, B.E. 1980 A revised age for the Donegal granites. *Nature* 284, 542-543.
14. **Halliday, A.N.**, Stephens, W.E. and Harmon, R.S. 1980 Rb-Sr and O isotopic relationships in three zoned Caledonian granitic plutons, Southern Uplands, Scotland: Evidence for varying sources and hydridisation of magmas. *J. Geol. Soc. Lond.* 137, 329-348.
15. Harmon, R.S. and **Halliday, A.N.** 1980 Oxygen and strontium isotope relationships in the British Caledonian granites. *Nature* 283, 21-25.
16. Leake, B.E., Brown, G.C. and **Halliday, A.N.** 1980 The origin of granite magmas: a discussion. *J. Geol. Soc. Lond.* 137, 93-97.
17. Stephens, W.E. and **Halliday, A.N.** 1980 Discontinuities in the composition surface of a zoned pluton, Criffell, Scotland. *Bull. Geol. Soc. Amer.* 91, 165-170.

1981

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