


Michael McWilliams

Professor of Geological and Environmental Sciences, Emeritus
Earth & Planetary Sciences

 Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Earth & Planetary Sciences

ADMINISTRATIVE APPOINTMENTS

- Director, CSIRO Deep Earth Imaging Future Science Platform [Australia], (2016-2019)
- Chief Executive, GNS Science [New Zealand], (2013-2016)
- Chief, CSIRO Division of Earth Science and Resource Engineering [Australia], (2011-2013)
- Chief, CSIRO Division of Exploration and Mining [Australia], (2009-2011)
- Professor Emeritus, Geological & Environmental Sciences, Stanford University, (2006- present)
- Director, John de Laeter Centre for Isotope Science [Australia], (2006-2009)
- Professor, Applied Physics, Curtin University [Australia], (2006-2009)
- Director, Stanford-USGS Ion Microprobe Center, (2004-2006)
- Mercator Professor, Deutsche Forschungsgemeinschaft [Germany], (2002-2004)
- Visiting Scientist, Centre National de la Recherche Scientifique [France], (2001-2001)
- Associate Professor, Stanford Overseas Studies Program [Chile], (1999-2000)
- Visiting Scientist, NGU/Geological Survey of Norway [Norway], (1999-2000)
- Visiting Scientist, GNS Science [New Zealand], (1996-1996)
- Consulting Professor, Hawaii Institute of Geophysics and Planetology, (1994-1995)
- Professor, Associate Professor, Geological and Environmental Sciences, Stanford University, (1993-2006)
- Professor, Associate Professor, Continuing Studies Program, Stanford University, (1989-2005)
- Associate Professor, Assistant Professor, Geophysics, Stanford University, (1980-1999)
- Postdoctoral Research Affiliate, Geophysics, Stanford University, (1977-1979)

PROFESSIONAL EDUCATION

- B.S., St. Lawrence University , Physics (1972)
- M.Sc., University of Toronto , Geophysics (1974)
- Ph.D., Australian National University , Geophysics (1978)

LINKS

- Publications and citations: <https://scholar.google.com/citations?hl=en&user=xMEYWr0AAAAJ>

Publications

PUBLICATIONS

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- **New Ar-40/Ar-39 ages reveal contemporaneous mafic and silicic eruptions during the past 160,000 years at Mammoth Mountain and Long Valley caldera, California** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*
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- **The Gilsa excursion and the Matuyama/Brunhes transition recorded in Ar-40/Ar-39 dated lavas from Lanai and Maui, Hawaiian Islands** *GEOPHYSICAL JOURNAL INTERNATIONAL*
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- **500 m.y. of thermal history elucidated by multi-method detrital thermochronology of North Gondwana Cambrian sandstone (Eilat area, Israel)** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*
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- **The North American-Caribbean Plate boundary in Mexico-Guatemala-Honduras** *Conference on Geology of the Area Between North and South America with Focus on the Origin of the Caribbean Plate*
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- **Multi-method chronometry of the Teletskoye graben and its basement, Siberian Altai Mountains: new insights on its thermo-tectonic evolution** *THERMOCHRONOLOGICAL METHODS: FROM PALAEOTEMPERATURE CONSTRAINTS TO LANDSCAPE EVOLUTION MODELS*
De Grave, J., Buslov, M. M., Van den Haute, P., Metcalf, J., Dehandschutter, B., McWilliams, M. O., Lisker, F., Ventura, B., Glasmacher, U. A.
2009; 324: 237-59
- **Geometric model of conjugate faulting in the Gyeongsang Basin, southeast Korea** *TECTONICS*
Hwang, B., Ernst, W. G., McWilliams, M., Yang, K.
2008; 27 (6)
- **Chronology of gold mineralization in the Sierra Nevada Foothills from Ar-40/Ar-39 dating of Mariposite** *INTERNATIONAL GEOLOGY REVIEW*
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- **Tectonic and magmatic evolution of the northwestern Basin and Range and its transition to unextended volcanic plateaus: Black Rock Range, Nevada** *GEOLOGICAL SOCIETY OF AMERICA BULLETIN*
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- **Tectonic implication of A-type granites across the Yangsan fault, Gige and Gyeongju areas, Southeast Korean Peninsula** *INTERNATIONAL GEOLOGY REVIEW*
Hwang, B., McWilliams, M., Son, M., Yang, K.
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- **Detrital zircon U-Pb geochronology of Cryogenian diamictites and Lower Paleozoic sandstone in Ethiopia (Tigray): Age constraints on Neoproterozoic glaciation and crustal evolution of the southern Arabian-Nubian Shield** *PRECAMBRIAN RESEARCH*
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- **Provenance of north Gondwana Cambrian-Ordovician sandstone: U-PbSHRIMP dating of detrital zircons from Israel and Jordan** *GEOLOGICAL MAGAZINE*
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- **Magnetic properties of Lake Lisan and Holocene Dead Sea sediments and the fidelity of chemical and detrital remanent magnetization** *NEW FRONTIERS IN DEAD SEA PALEOENVIRONMENTAL RESEARCH*
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- **Polyphase subduction and exhumation of the Sulu high-pressure-ultrahigh-pressure metamorphic terrane** *32nd International Geological Congress*
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- **When did the ultrahigh-pressure rocks reach the surface? A Pb-207/Pb-206 zircon, Ar-40/Ar-39 white mica, Si-in-white mica, single-grain provenance study of Dabie Shan synorogenic foreland sediments** *CHEMICAL GEOLOGY*
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- **Tectonics of the Qinling (Central China): tectonostratigraphy, geochronology, and deformation history** *TECTONOPHYSICS*
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- **Origin of northern Gondwana Cambrian sandstone revealed by detrital zircon SHRIMP dating** *GEOLOGY*
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- **Multiple centers of mineralization in the Indio Muerto district, El Salvador, Chile** *ECONOMIC GEOLOGY AND THE BULLETIN OF THE SOCIETY OF ECONOMIC GEOLOGISTS*
Gustafson, L. B., Orquera, W., McWilliams, M., Castro, M., Olivares, O., ROJAS, G., Maluenda, J., Mendez, M.
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- **Global correlation of the 223 ka Pringle Falls event** *INTERNATIONAL GEOLOGY REVIEW*
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- **Exhumation of ultrahigh-pressure continental crust in east central China: Late Triassic-Early Jurassic tectonic unroofing** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*
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- **Tephrochronologic constraints on temporal distribution of large landslides in northwest Argentina** *JOURNAL OF GEOLOGY*
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1998; 135 (1): 129-145
- **High-resolution record of geomagnetic secular variation from Late Pleistocene Lake Lisan sediments (paleo Dead Sea)** *EARTH AND PLANETARY SCIENCE LETTERS*
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Layer, P. W., Kroner, A., McWilliams, M.
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- **Ar-40/Ar-39 geochronology of rhyolites erupted following collapse of the Yellowstone caldera, Yellowstone Plateau volcanic field: Implications for crustal contamination** *EARTH AND PLANETARY SCIENCE LETTERS*
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- **CHRONOLOGY AND DYNAMICS OF A LARGE SILICIC MAGMATIC SYSTEM - CENTRAL TAUPO VOLCANIC ZONE, NEW-ZEALAND** *GEOLOGY*
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- **GENESIS AND EVOLUTION OF A PERMIAN-JURASSIC MAGMATIC ARC ACCRETIONARY WEDGE, AND REEVALUATION OF TERRANES IN THE CENTRAL KLAMATH MOUNTAINS** *TECTONICS*
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