

## Professor Paul W. O. Hoskin

Position: Dean – Faculty of Science and Technology  
Professor of Geology

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### Education

**Executive M.B.A.** (*Strategy, Finance*) University of Auckland, New Zealand  
(Triple Crown accredited: AACSB, AMBA, EQUIS)

**Dr. habil.** (*Mineralogy, Petrology*) Albert-Ludwigs-Universität Freiburg, Germany

**Ph.D.** (*Geology and Geochemistry*) Australian National University, Australia

**B.Sc. (Honors, First Class)** (*Geology*) University of Auckland, New Zealand

**Grad. Dip. Teaching & Learning** (*Pedagogy*) University of Canterbury, New Zealand

### Teaching

Over 15 years of university-level teaching experience in the USA, Canada, New Zealand, and Germany. I have taught across disciplines including the Geological Sciences, Environmental Science, Resource Management, and Energy Geoscience. I have taught analytical geochemistry in the lab, regional geology and mapping in the field, and international business strategy to Western MBA students in large Asian cities. One of the most fun courses that I taught required outdoor learning at Switzerland on the Alps.

### Brief Employment History prior to Sunway University

Senior Vice-President Academic and Provost, Professor — Netherlands Maritime Institute of Technology

Professor of Geology and Management, University Head of Geothermal Institute — University of Auckland

Canada Research Chair in Solid Earth Geochemistry — University of Calgary

Associate Professor of Geoscience — Central Washington University

### Research Interests

I am interested in the processes that operate in the Earth's crust to generate magma and modify rocks. These processes generate earthquakes, volcanoes, and valuable mineral deposits, and can be responsible for determining where we build our cities and the quality of the soil and rock upon which we build structures. I am a mineralogist and petrologist with an interest in energy geoscience and renewable energy.

### Consultancy

I have consulted to numerous companies both as a minerals geologist and also as a management consultant. In the latter, I have expertise in governance issues, corporate strategy, and market entry. I have consulted for companies in the aviation, engineering and infrastructure industries, as well as for those competing in professional services. I am experienced at R&D management and new product commercialization.

## Selected Publications

- Akçay, M., Özkan, H. M., Spiro, B., Wilson, R. and **Hoskin, P. W. O.** (2003) Geochemistry of a high-*T* hydrothermal dolostone from the Emirli (Ödemis, western Turkey) Sb-Au deposit. *Mineralogical Magazine* **67**, pp. 671–688.
- Bernal, N. F., Gleeson, S. A., Dean, A. S., Liu, X.M. and **Hoskin, P.** (2014) The source of halogens in geothermal fluids from the Taupo Volcanic Zone, North Island, New Zealand. *Geochimica et Cosmochimica Acta* **126**, pp. 265–283.
- Grapes, R., Bucher, K. and **Hoskin, P. W. O.** (2005) Monazite-epidote reaction in amphibolite grade blackwall rocks. *European Journal of Mineralogy* **17**, pp. 553–566.
- Grapes, R. H., Wysoczanski, R. J. and **Hoskin, P. W. O.** (2003) Rhönite paragenesis in lower crustal pyroxenite xenoliths, Mount Sidley volcano, Marie Byrd Land, West Antarctica. *Mineralogical Magazine* **67**, pp. 639–651.
- Hoskin, P. W. O.** (1998) Minor and trace element analysis of natural zircon (ZrSiO<sub>4</sub>) by SIMS and laser ablation ICPMS: A consideration and comparison of two broadly competitive techniques. *Journal of Trace and Microbeam Techniques* **16**, pp. 301–326.
- Hoskin, P. W. O.** (1999) SIMS determination of µg g<sup>-1</sup>-level fluorine in geological samples and its concentration in NIST SRM 610. *Geostandards and Geoanalytical Research* **23**, pp. 69–76.
- Hoskin, P. W. O.** (2000) Patterns of chaos: fractal statistics and the oscillatory chemistry of zircon. *Geochimica et Cosmochimica Acta* **64**, pp. 1905–1923.
- Hoskin, P. W. O.** (2005) Trace-element composition of hydrothermal zircon and the alteration of Hadean zircon from the Jack Hills, Australia. *Geochimica et Cosmochimica Acta* **69**, pp. 637–648.
- Hoskin, P. W. O.** and Black, L. P. (2000) Metamorphic zircon formation by solid state re-crystallization of protolith igneous zircon. *Journal of Metamorphic Geology* **18**, pp. 423–439.
- Hoskin, P. W. O.** and Burns, P. C. (2003) Ion-exchange between aqueous fluid and spent nuclear fuel alteration products: Implications for the mobility of Cs in the probable repository at Yucca Mountain. *Mineralogical Magazine* **67**, pp. 689–696.
- Hoskin, P. W. O.** and Ireland, T. R. (2000) Rare earth element chemistry of zircon and its use as a provenance indicator. *Geology* **28**, pp. 627–630.
- Hoskin, P. W. O.**, Kinny, P. D., Wyborn, D. and Chappell, B. W. (2000) Identifying accessory mineral saturation during differentiation in granitoid magmas: An integrated approach. *Journal of Petrology* **41**, pp. 1365–1396.
- Hoskin, P. W. O.** and Rodgers, K. A. (1996) Raman spectral shift in the isomorphous series (Zr<sub>1-x</sub>Hf<sub>x</sub>)SiO<sub>4</sub>. *European Journal of Solid State and Inorganic Chemistry* **33**, pp. 1111–1121.
- Hoskin, P. W. O.** and Schaltegger, U. (2003) The composition of zircon and igneous and metamorphic petrogenesis. In: Hancher, J. M. and Hoskin, P. W. O., eds, *Zircon*. Reviews in Mineralogy and Geochemistry **53**, Mineralogical Society of America, Washington, D.C., pp. 27–62.
- Hoskin, P. W. O.** and Wysoczanski, R. J. (1998) In situ accurate and precise lead isotopic analysis of ultra-small analyte volumes (10<sup>-16</sup> m<sup>3</sup>) of solid inorganic samples by high mass resolution secondary ion mass spectrometry. *Journal of Analytical Atomic Spectrometry* **13**, pp. 597–602.
- Salisbury, M. J., Bohron, W. A., Clynne, M. A., Ramos, F. C., and **Hoskin, P. W. O.** (2008) Multiple plagioclase crystal populations identified by crystal size distribution and in situ chemical data: implications for timescales of magma chamber processes associated with the 1915 eruption of Lassen Peak, CA. *Journal of Petrology* **49**, pp. 1755–1780.
- Sutherland, L., Graham, I., Yaxley, G., Armstrong, R., Giuliani, G., **Hoskin, P.**, Nechaev, V., and Woodhead, J. (2016) Major zircon megacryst suites of the Indo-Pacific lithospheric margin (ZIP) and their petrogenetic and regional implications. *Mineralogy and Petrology* **110**, pp. 399–420.