

Name: Dr. Suresh Puthiyaveetil Othayoth

Designation: Adjunct Assistant Professor

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School: School of Science



Research Interest:

- **Development of Novel Plant Nutrient Sources**
- **Soil Nutrient Evolution**
- **Nutrient Use Efficiency**
- **Nanofertilizer**
- **Soil Chemical Evolution and Climate Change**
- **GIS**
- **Isotope Chemistry of Soils**

Academic Background:

Degree	Subject	University	Year
<u>PhD</u>	<u>Environmental Science</u>	<u>Macquarie University, Sydney, Australia</u>	<u>2012</u>
<u>Foundations in Learning and Teaching</u>	<u>Higher Education Teaching</u>	<u>Macquarie University, Sydney, Australia</u>	<u>2010</u>
<u>MSc</u>	<u>Physics</u>	<u>Kannur University, Kerala</u>	<u>2003</u>

Professional Experience:

From	Period	Position	Organisation
<u>2014</u>	<u>7 years</u>	<u>Manager (Research)</u>	<u>GSFC Ltd</u>
<u>2013</u>	<u>1 year</u>	<u>Post Doctoral Fellow</u>	<u>Academia Sinica, Taiwan</u>
<u>2012</u>	<u>1 year</u>	<u>Post Doctoral Fellow</u>	<u>Macquarie University, Australia</u>
<u>2003</u>	<u>4 years</u>	<u>Research Fellow</u>	<u>Physical Research Laboratory, Ahmedabad</u>

Teaching Engagements:

Title	Course Code	Class Name	School Name
<u>Planet Earth</u>	<u>ENV01</u>	<u>UG</u>	<u>Environment & Geography, Macquarie University, Australia</u>
<u>Geostatistics</u>		<u>UG</u>	<u>University of Saskatchewan, Canada</u>

Publications:

Patents as Inventor

A Process for Preparation of Granulated Ammonium Sulphate
(Indian Patent No: 369798, Granted in 2021)

Process for Preparing Granulated Phosphogypsum Fertilizer Composition
(Indian Patent No. 375109, Granted in 2021)

Journal Papers

P. O. Suresh, M. C. Valodkar, A. K. Mishra and S. Patel, Soil properties management and the role of nanoparticles of elemental sulphur. 2015. International Journal of Earth and Atmospheric Science 2, p. 65.

P. O. Suresh, A. Dosseto, P. P. Hesse and H. K. Handley, Very long hillslope transport timescales determined from uranium-series isotopes in river sediments from a large, tectonically stable catchment. 2014. Geochimica et Cosmochimica Acta 142, p. 442.

P. O. Suresh, A. Dosseto, P. P. Hesse and H. K. Handley, A leaching procedure for extracting residual primary minerals from soils for uranium-series analysis. 2014. Applied Radiation and Isotopes, 83, p. 47-55

P. O. Suresh, Organic Carbon Dynamics in a Soil Profile and an Alluvial Deposit from India. 2014. International Journal of Earth and Atmospheric Science 1, p. 54.

P. O. Suresh and C –A. Huh, 2014. Evolution of Soil on Young Volcanic Bedrocks: Revisiting Geochemical and Cosmochemical Information from Tatun Volcanic Area, Northern Taiwan. *International Journal of Earth and Atmospheric Science*, 1, p. 85.

P. O. Suresh, A. Dosseto, P. P. Hesse and H. K. Handley, Soil formation rates determined from uranium-series isotope disequilibria in soil profiles from south-eastern Australian highlands. 2013. *Earth and Planetary Science Letters* 379, p. 26.

A. Dosseto, H. L. Buss and P. O. Suresh, Rapid regolith formation over volcanic bedrock and implications for landscape evolution. 2012. *Earth and Planetary Science Letters* 337-338, p. 47.

A. Dosseto, H. L. Buss and P. O. Suresh, The delicate balance between soil production and erosion, and its role in landscape evolution. 2011. *Applied Geochemistry* 26. p. S27.

P. O. Suresh, A. Dosseto and P. Hesse, Links between catchment erosion and climate investigated with uranium-series isotopes. 2010, ASEG Extended Abstracts, CSIRO Publishing, DOI: 10.1071/ASEG2010ab100.

Christian Koeberl, Narendra Bhandari, Deepak Dhingra, P. O. Suresh, V. L. Narasimham and SoumitraMisra, Lunar Impact Crater, India: Occurrence of a Basaltic Seuvite? Lunar and Planetary Science Conference XXXV extended abstracts, 2004.

Book Chapter

P. O. Suresh, N. K. Sanchapara, S. H. Shekh, A. K. Bhatt, S. J. Parikh., 2019. Particle Size Control on Wet Micronisation of Sulphur Prills for Fertilizer Applications (in “Emerging Trends in Advanced Spectroscopy”, River Publishers, ISBN: 9788770220828)

Conference Papers

P. O. Suresh and P. B. Vaishnav, From Waste to Best: A Novel Fertilize Composition from Waste Phosphogypsum. International Conference on Ecohealth and Environmental Sustainability, Navarachna University, Vadodara, India, 2020

P. O. Suresh, A. S. Sikdar and A. K. Bhatt, UV-Spectra of Micronized Sulphur Dispersed in Methanol and the Possible Implications on Particle Size Estimation. International Conference on Molecular Spectroscopy, Kottayam, India 2017.

H. Handley, S. Turner, P. Hesse, P. O. Suresh and M. Turner, The U-Th isotopic composition of Australian aeolian deposits: implications for weathering and sediment transport timescales. 19th General Assembly of European Geophysical Union, 2017

P. A. Yadava, M. C. Valodkar, P. O. Suresh, S.K. Jain, K. A. Patel, A. K. Bhatt, A.S. Sikdar, Treatment of Organic Effluent Stream from a Petrochemical Plant. National Conference on Green Chemistry and Sustainable Environment 2016.

P. O. Suresh, A. S. Sikdar and A. K. Bhatt, Soil Fertility and Smart Fertilizers: The Role of Nanoparticles of Sulphur. First national Conference on Advanced Nanomaterials, India 2015.

P. O. Suresh, A. Dosseto, P. Hesse and H. K. Handley, Slow, Slo-ow, Quick, Slow: the rhythm of sediment transport in a large catchment. Australia-New Zealand Geomorphology Group 15th Biennial Meeting, Australia 2012.

P. O. Suresh, A. Dosseto, P. Hesse and H. K. Handley, Time constraints on soil evolution from uranium-series isotopes in the south-eastern Australian highlands: evidence for a coupling between soil erosion and production. AGU Fall Meeting, California, USA 2011.

P. O. Suresh, A. Dosseto, S.P. Turner and P. Hesse, Links between catchment erosion and climate investigated using uranium-series isotopes. ASEG-PESA Geophysics Conference, Sydney, Australia. 2010.

Anthony Dosseto and P. O. Suresh, Quantification and of soil production and erosion using isotopic techniques. EGU General Assembly, 2010.

Heather Handley, Anthony Dosseto, P.O. Suresh, Tim Cohen and Simon Turner, U-series constraints on sediment residence timescales in semi-arid Australia. EGU General Assembly 2010.

P. O. Suresh, P. Hesse and A. Dosseto, Soil residence time in weathering profiles measured using uranium-series isotope disequilibria. Geological Society of Australia 98:115 Australian Earth Science Convention, 2010.

A. Dosseto and P. O. Suresh, Timescales of soil formation for weathering profiles developed over andesitic volcanics. Geological Society of Australia 98:114 Australian Earth Science Convention, 2010.

Anthony Dosseto, P. O. Suresh and Shane Cronin, A new tool for quaternary geochronology? Direct dating of fine grained volcanic products using uranium series isotope. AGU Fall Meeting, 2009.

Heather Handley, Anthony Dosseto, P.O. Suresh, Tim Cohen and Simon Turner, Sediment residence time and landscape evolution in arid Australia. AGU Fall Meeting, 2009.

Christian Koeberl, Narendra Bhandari, Deepak Dhingra, P. O. Suresh, V. L. Narasimham and Soumitra Misra, Lonar Impact Crater, India: Occurance of a Basaltic Seuvite? Lunar and Planetary Science Conference XXXV, 2004.

P. O. Suresh, N. Verma, D. Dhingra, N. Srivastava and N. Bhandari, Alpha and Gamma Spectrometry from a Lunar Polar Orbiter for study of volatile transport on the moon. National Space Science Symposium, India, 2004.

Book:

Awards/Recognitions:

- 1. 1996-1998 National Merit Scholarship (for Pre-Degree Course)**
- 2. 1998-2001 National Merit Scholarship (for BSc studies)**
- 3. 2001-2003 National Merit Scholarship (for MSc studies)**
- 4. 2005-2006 Junior Research Fellowship (Physical Research Laboratory)**
- 5. 2009-2012 Macquarie University Research Excellence Scholarship, Australia**
- 6. 2010 Walcott Prize Runner Up award from PESA NSW, Australia**
- 7. 2011 Post Graduate Research Fund from Macquarie University Australia**