

## INTRODUCTION – REGOLITH 2006

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This volume contains papers delivered at the 2006 Regolith Symposium in Hahndorf, South Australia (6-8 November 2006). Edited and peer-reviewed by LEME staff, papers in this volume provide an overview of Centre research activities over the last five years.

This year has seen the Centre reach full maturity in terms of high-profile scientific outcomes from pursued research projects, and in the use of its regolith science to provide outcome-focussed solutions to some of Australia's complex mineral exploration and Natural Resource Management (NRM) issues. One of LEME's strategies to focus on biological mechanisms of trace element and mineral transport and transformation in regolith has delivered exciting advances in phyto-exploration and gold biomineralisation. The papers also highlight the shift to a more balanced representation of regolith science with a wide range of environmental projects.

As LEME moves toward its final two years of operation, the delivery of high-level scientific outcomes will continue with an increasing emphasis placed on the communication and facilitation of technology transfer and research outcomes to end-users. There will also be an increasing emphasis placed on LEME researchers to publish results in international science literature.

The annual LEME Regolith Symposium provides an opportunity to discuss and review preliminary research findings of Centre projects with fellow regolith scientists. The 2006 Regolith Symposium in particular will be the last opportunity for many LEME researchers to come together at one central location and discuss their work with other colleagues from the Centre's Canberra, Adelaide and Perth nodes.

The abstract volume is also an important internal and external communication tool and an essential educational resource. Many of the papers published in these volumes form the basis of on-going regolith education and training activities at the three LEME Core Participant universities: The Australian National University, The Curtin University of Technology and The University of Adelaide.

Symposium presentation themes are divided into the following categories:

- Understanding regolith processes.
  - Models of regolith-landscape evolution.
  - Acid sulfate soils: regolith processes and implications.
  - Regional exploration studies.
  - How geochemical anomalies form in complex landscapes.
  - Geophysical mapping and modelling in regolith terrains.
  - The science base to mapping dryland salinity.
  - Salt hazard mapping.
  - Regolith geoscience and urban Australia.
  - Environmental geochemistry and the regolith.
  - Application of regolith salinity science.
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