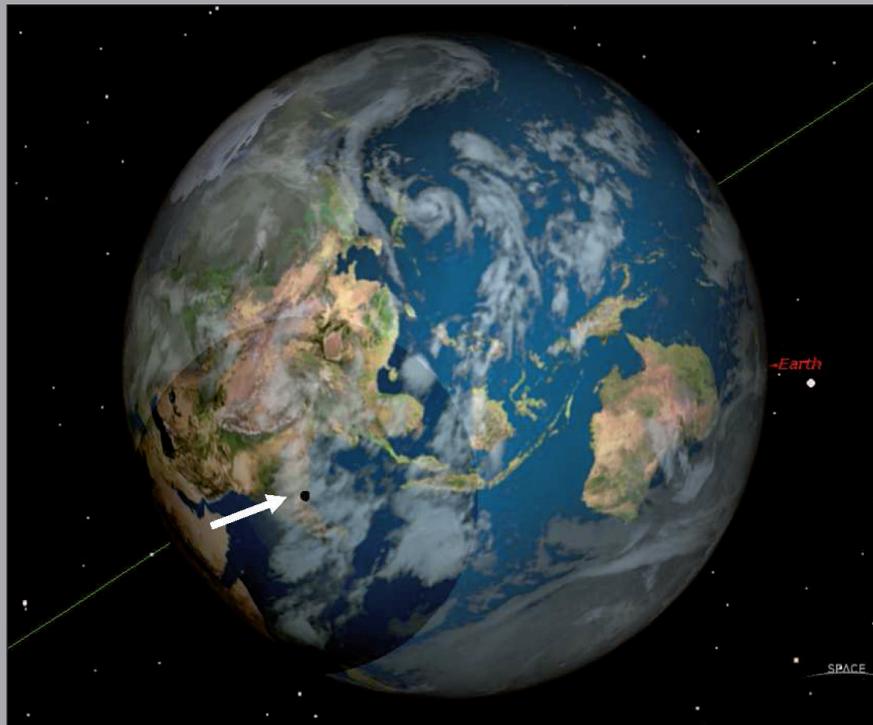


# New Zealand Science Review

Vol 66 (2) 2009



innovative science



Official Journal of the New Zealand Association of Scientists

# New Zealand Science Review

## Vol 66 (2) 2009

Official Journal of the New Zealand Association of Scientists  
P O Box 1874, Wellington  
www.nzas.rsnz.org

A forum for the exchange of views on science and science policy.

Editor: Allen Petrey  
Production Editor: Geoff Gregory

## Contents

<b>Editorial</b> .....	57
<b>President's column</b> .....	59
<b>Articles</b>	
Achieving innovative science – <i>Jacqueline S. Rowarth and Stephen L. Goldson</i> .....	60
Legacies of the parallel worlds of Rutherford and Kamerlingh-Onnes, 1908 – <i>Jeffery L. Tallon</i> .....	66
<b>New Zealand Science and Technology Postdoctoral Fellowships</b>	
Molecular approaches for hexavalent chromium bioremediation: Stanford Medical Center – <i>David F. Ackerley</i> .....	70
Investigation of drying and re-hydration of powdered dairy products with magnetic resonance imaging: Getting home with a 'FRST Fellowship' – <i>Jason Hindmarsh</i> .....	74
The evolution of indigenous grasses and their response to environmental change – <i>Kelvin Lloyd</i> .....	76
<b>New Zealand Institute of Agricultural and Horticultural Science Forum 2009</b>	
New initiatives to improve the New Zealand science system – <i>Report by Ken Aldous</i> .....	81
<b>News</b>	
Professor Sir Peter Gluckman appointed Chief Science Adviser to Prime Minister .....	58
New Dean of Science for the University of Auckland .....	73
<b>Obituary</b>	
Joan Wiffen.....	65

**Cover photo:** *The shadow cast on the earth by the sun during its eclipse on 18 August 1868, when Pierre Janssen made the first extraterrestrial discovery of an element, subsequently named helium. See article on page 66.*

## Instructions to Authors

*New Zealand Science Review* provides a forum for the discussion of science policy. It covers science and technology in their broadest sense and their impacts on society and the environment, both favourable and adverse. It also covers science education, science planning, and freedom of information. It is aimed at all scientists and decision makers, and the interested public. Readability and absence of jargon are essential.

Manuscripts on the above topics are welcome, two copies of which should be sent to:

The Editor  
NZ Association of Scientists  
P O Box 1874  
Wellington

As well as full papers, short contributions, reports on new developments and conferences, and reviews of books, all in the general areas of interest of the journal, are invited. The journal also accepts reviews of a general nature and research reports.

Full manuscripts (with author's name removed) will be evaluated and authors will be sent copies of the reviewer's comments and a decision on publication. Manuscripts should not normally have appeared in print elsewhere but already published results discussed in the different, special context of the journal will be considered. They should preferably not exceed 2500 words.

To facilitate anonymous review, author's names on manuscripts and any acknowledgement of assistance should be on a detachable

cover page. Manuscripts should be accompanied by biographies of not more than 100 words on each author's personal history and current interests. Authors are also expected to supply a suitable passport-size photograph of themselves.

Manuscripts should be typed double-spaced with wide margins on one side of the page. Articles may be submitted in Word for PC, rich text format, or plain text, by e-mail, or on floppy disk or CD-R, but a hardcopy should also be sent so that fidelity may be confirmed. Diagrams and photographs should be on separate files (preferably eps, tif, jpg, all at 300 dpi), not embedded in the text.

All tables and illustrations should be numbered separately – Tables 1, 2, 3, 4, etc., and Figures 1, 2, 3, 4, etc. – and be referred to in the text. Footnotes should be eliminated as far as possible. Diagrams and photographs will be printed in black and white, so symbols should be readily distinguishable without colour, and hatching should be used rather than block shading.

References should preferably be cited by the author–date (Harvard) system as described in the Lincoln University Press *Write Edit Print: Style Manual for Aotearoa New Zealand* (1997), which is also used as the standard for other editorial conventions. This system entails citing each author's surname and the year of publication in the text and an alphabetical listing of all author's cited at the end. Alternative systems may be acceptable provided that they are used accurately and consistently.