

Tuesday 24 November 2015, 13.00-16.30
The Beijer Hall, The Royal Swedish Academy of Sciences
Lilla Frescativägen 4A, Stockholm

Seminar:

People and Sulfur: The Forgotten Element Cycle

The carbon cycle has taken centre stage as a global element cycle in the run-up to the Paris climate conference and beyond. Even the nitrogen and phosphorus cycles get plenty of attention in their role as critical elements for food production, as well as pollutants that can eutrophy freshwater systems and the coastal zone. But in many ways, the global sulfur cycle is just as important.

It was at the centre of the acid rain problem that afflicted Europe and eastern North America a few decades ago. For many years, sulfur compounds have been central to the role of aerosols in local and regional air pollution, most notably as a feature that threatens the stability of South Asian monsoon system and that drives health impacts through urban air pollution.

But the sulfur cycle is also crucial in the functioning of terrestrial and marine ecosystems. In fact, one of the key feed-back mechanisms that operates in the global climate system, involving marine microorganisms and clouds, could be coupled to the sulfur cycle.



This seminar explores the global sulfur cycle and its complex relationship with people with 2015 Volvo Environment Prize laureate Professor Henning Rodhe and colleagues.

Henning Rodhe is Professor of Chemical Meteorology at Stockholm University. His pioneering work explains how gases and particles are transported and deposited and how they affect climate, ecosystems and human health. Henning Rodhe's research can be described to some extent as detective work, combining data collection with scientific theories and fieldwork. He has demonstrated that long-range transportation, as for mercury and radioactive fallout, is more widespread than previously believed. The atmosphere can carry particles a very long way, and the fallout and environmental problems can occur where not expected.

The symposium is free of charge and open to the public but registration is required. Please register at <http://kva.se/sulfur> by 20 November.



Program

13.00 - 14.30

Welcome and introduction

Professor Will Steffen, Climate Change Institute, Australian National University

Human interactions with the sulfur cycle

Professor Henning Rodhe, Stockholm University, Sweden

Sulfur Pollution in Europe

Senior Advisor Peringe Grennfelt, IVL, Swedish Environmental Research Institute

Impact of aerosol pollution in East Asia on climate

Professor Deliang Chen, University of Gothenburg, Sweden

14.30 – 15.00 Coffee Break

15.00 – 16.30

Nitrogen and sulfur cycles in terrestrial systems in Southern Africa

Professor Mary Scholes, University of the Witwatersrand, South Africa

The sulfur cycle in marine ecosystems

Professor Caroline Leck, Stockholm University, Sweden

The sulfur cycle and climate change - outlook to the future

Panel discussion, moderated by Will Steffen

In collaboration with:



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