

## **Member Networks Annual Report Form 2013**

To enable us to better support our networks and their activities all member networks (Local Sections, Interest Groups and Analytical Division Regions) are asked to complete this form and return it to <a href="mailto:networks@rsc.org">networks@rsc.org</a>. The information is shared with the members of your networks, staff and governance Boards and Committees (inc. Division Councils).

Or by post to; Dr Fiona McMillan, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF.

This report form will be uploaded to the appropriate web page (signature deleted) unless requested otherwise.

GROUP NAME	Environmental Chemistry Group
Submitted by	Dr Martin King
Signed (may be signed	
electronically)	
Date	

Please list below the dates of your planned AGM and Committee Meetings (where applicable).

Annual General Meeting (if being held)

Date:	12 March 2014
Venue:	Burlington House

**Proposed Committee Meetings Dates** 

Date	Venue
12/2/14	Burlington House
18/6/14	"
17/9/14	"
3/12/14	"
11/2/15	"
11/3/15	"
17/6/15	"
23/9/15	"
2/12/15	66

"

## Financial Accounts for the year ending 31 December 2013

Deadline for receipt of Financial Accounts by RSC Finance Team: 14<sup>th</sup> February 2014
Deadline for receipt of Annual Report by Networks Team: 21<sup>st</sup> February 2014



## **EVENTS**

Please attach any meeting reports, newsletters or other reports which are relevant.

Please report below on activities undertaken in the past year. If you have more detailed information about any particularly successful events, or advice to share please use a separate sheet. For more events continue as necessary.

### **EVENT KEY:**

- Education Event
- Public Lecture
- Retired Members Event
- Scientific Conference 1 day
- Scientific Conference multi day
- Social Event
- Training/workshop
- Award Lecture

Event Name	Analysis of Complex Environmental Matrices
Event Type (key)	Scientific Conference – 1 Day
Comments	28/2/13, Burlington House  The ECG, the Separation Science Group and the RSC Analytical Division jointly organised an event on the Analysis of Complex Environmental Matrices; this 1-day meeting was attended by ca. 60 delegates, who heard a series of presentations from 9 speakers on topics ranging from Using comprehensive GC (GC x GC) in field devices for atmospheric chemistry through to Probing the water flea's biochemistry - a truly complex but high information-content environmental sample.

Event Name	Rare earths and other scarce metals: Technologically vital but usually thrown away.
Event Type (key)	Scientific Conference – 1 day / Award Lecture
Comments	The ECG organised the 2013 Distinguished Guest Lecture and Symposium on 20th March: Rare earths and other scarce metals: Technologically vital but usually thrown away. Speakers at the event included Prof Andrea Sella (UCL; "Terra Rara – The Elemental Unknown Sea"), Mr David Merrimam (Roskill, "A Review of Global Supply of Rare Earths"); Dr Mike Pitts (Technology Strategy Board, "Chemistry Innovation in Resource Efficiency"); Dr Adrian Chapman (Oakdene Hollins, "Materials Criticality – Mitigation Options and Impacts". The Distinguished Guest Lecture was delivered by Prof Thomas Graedael of Yale University, who spoke to the symposium title "Rare Earths and Other Scarce Metals: Technologically Vital but Usually Thrown Away". Detailed reports from the meeting can be found in the July 2013 edition of the ECG
	Bulletin. Approximately 60 delegates attended the meeting drawn from across the private, public and regulatory sectors.

<b>Event Name</b>	Science behind our Cultural Heritage
Event Type (key)	Public Lecture



	23/10/13, Institute of Physics (Co-organised by the Environmental Physics Group at the IOP)
Comments	On 23rd Oct, an evening lecture programme on The Science behind our Cultural Heritage was held at the Institute of Physics, featuring talks from Dr Nigel Blades (National Trust, "Heat, moisture and the preservation of art collections in historic houses") and Mr Joseph Padfield (National Gallery, "Considering the effect of light on old master paintings").

Event Name	Soft Ionisation Mass Spectrometric Techniques and the Environmental Sciences
Event Type (key)	Scientific Conference – 1 day
Comments	On 20th November, the ECG and the Molecular Physics Group at the IOP coorganised a meeting on Soft Ionisation Mass Spectrometric Techniques and the Environmental Sciences at the University of Birmingham. This meeting, which followed on from the successful inaugural meeting on the same topic in Nov 2012, featured talks from Prof Jonathan Williams (Max Plank Institute, "The atmospheric chemistry of Forests, a Forgotten molecule, and a Football match"); Dr Emily House (Lancaster University, "Measuring Fluxes of Biogenic Volatile Organic Compounds above the Amazonian Rainforest using PTR-MS"); Prof Paul Thomas (Loughborough University, "Does it have to be blood sweat and tears? Non-invasive approaches to therapeutic measurements, and emergency medicine") and Prof Armin Wisthaler (Innsbruck, "An overview of on-line CIMS methods for the measurement of organic trace gases in the Earth's atmosphere"). The meeting was attended by ca. 55 delegates, and it was agreed to hold a third meeting in the autumn of 2014, potentially to be hosted at the University of Lancaster (to be confirmed).

Event Name	ECG Bulletin / Environmental Briefs
Event Type (key)	
Comments	The group has continued to produce the biannual <b>ECG Bulletin</b> . With the transition to electronic publication, future issues should include more dynamic content and hyperlinked material. One further innovation has been the development of the ECG Environmental Briefs, a series of short (2-side) documents giving a brief, but precise / technical, introduction to topics of relevant to environmental chemistry, led by Dr Martin King (Royal Holloway). Four initial briefs on Atmospheric Photolysis Rates Contaminated Land Regulations, Nighttime atmospheric chemistry and atmospheric particulate matter have been published; further briefs appear in this issue of the ECG Bulletin (they have a dedicate webpage).

Event Name	Installing Atmospheric Chemistry instruments in schools- outreach activities for the whole community
Event Type (key)	Education event.



#### Comments

Two cutting edge small and movable air quality instruments have been purchased thanks to an educational grant from the RSC and have been tested in a school and at various locations around Leicester and various outreach activities associated with this have been carried out to teach atmospheric chemistry and to raise awareness of air pollution issues amongst the public and at schools.

We have been working with the educational group of the RSC to develop some web resources for schools to collect and assess pollution levels near their school by accessing the DEFRA air quality archives. Resources for building home-made air quality instruments in schools are also provided on the web site. We would like our instruments to travel the country to be installed in various schools over the next couple of years



# **AWARDS AND BURSARIES**

Please list any awards or bursaries presented by your committee in 2013 and indicate any which will be open for nomination/application in 2014.

**Other information/comments:** 



# **PLANNED ACTIVITES**

Please report below on activities proposed. For more events continue as necessary.

<b>Event Name</b>	Organic Chemistry and Toxicity of Contaminants in the Ground
	1-day meeting, joint with the RSC Toxicology Group: Burlington House, 13 Feb 2014
	Reaction mechanisms and the Environmental Fate Simulator – Eric Weber, US EPA
Comments	Emerging Contaminants in the Ground – Marianne Stuart, British Geological Survey
	Human exposure, body burdens and health effects of PFOA and PFOS – Tony Fletcher, LSHTM
	Fractionating hydrocarbons for hazard and risk assessment; chemical and biological analysis –Graeme Paton, University of Aberdeen

<b>Event Name</b>	Plastic debris in the ocean - a global environmental problem
	ECG Distinguished Guest Lecture & Symposium, Burlington House, 12 Mar 2014
	Professor Norman Billingham, University of Sussex Polymers and their environmental degradation
Comments	Dr Edwin Foekema, IMARES (Institute for Marine Resources and Ecosystem Studies) Aspects that determine the actual risk of plastic associated POPs for marine organisms
	Dr Heather Leslie, Institute for Environmental Studies, VU University Macroplastics and Microplastics – what is their environment impact?
	DGL: Professor Richard Thompson, Plymouth University Plastic debris in the ocean – solutions to a global environmental problem

<b>Event Name</b>	ECG Bulletin
Comments	Ongoing production of the biannual ECG Bulletin, now incorporating ECG Environmental Briefs. Upcoming briefs in Pourbaix diagrams, asbestos in soils, Atmospheric chemical lifetimes and remote sensing atmospheric chemistry from space.

<b>Event Name</b>	The upper troposphere/lower stratosphere and its role in climate
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Comments	The RSC-ECG is co-hosting this meeting at Reading (19 <sup>th</sup> March 2014).
Event Name	Atmospheric Ozonolysis
Event Name  Comments	The RSC-ECG is co-hosting this meeting with the Gas Kinetics Discussion group  Laying Pipes in Contaminated land  The RSC-ECG is co-hosting this meeting with RSC WSF group
<b>Event Name</b>	The upper troposphere/lower stratosphere and its role in climate
Comments	The RSC-ECG is co-hosting this meeting at Reading (19 <sup>th</sup> March 2014)
<b>Event Name</b>	Recent advances in the analysis of complex environmental matrices



	Planned for early 2015 – to build on the success of the previous meeting.
Comments	



# **COMMITTEE**

(this information will be used to update our membership database and your web page where appropriate)

Position	Name	Dates on committee (20xx – 20xx)
Chair	Dr William Bloss Mr James Lymer	2012 – March 2014 March 2014 -
Secretary	Dr Martin King	2012 -
Treasurer	Miss Jo Barnes	2012 -
Ordinary Members	Dr Rupert Purchase Dr Stephen Ball Dr Zoe Fleming Dr Roger Reeve Dr Julia Fahrenkamp-Uppenbrink Dr Stuart Wagland Dr Leo Salter	1986- 2008- 2012- 2007- 2012- 2012- 1996-
Co-opted members and their affiliation	Dr Cecilia Fenech (Cranfield University) Mrs Rowena Fletcher-Wood (University of Birmingham) Dr Ian Forber (Alcontrol).	2014- 2014- 2014-



# **COLLABORATION**

The issue of communication and collaboration between all member networks has been raised by members at recent events including the regional meetings and the general assembly. There have been instances of committees running very similar events when, had they known about their shared interests, they would have preferred to work together and to share their experiences.

As all of the networks cover such a broad range of topics it would be helpful if you could complete the following information to assist staff in proposing potential collaborations. Please include the topic of an event which you would consider collaborating on with another committee and the contact name for that area (if left blank we will assume that the contact is the Secretary). To facilitate communication if you are happy for us to pass your contact email on to the appropriate person to discuss potential collaboration please indicate below.

This information will be shared with all other member network committees.

Area of interest	Contact Name	Permission to share email YES/NO