

## Associate Subject Editor: Burkhard O. Wagner

**Subject Area 4.2: Science Communication and Information;  
Information Management**  
**Subject Area 4.3: Regulatory Actions and Legislation on Testing Methods;  
Classification and Labelling; Risk Assessment and  
Management of Chemicals**

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<b>1960–1970</b>	Studies in Chemistry at the Freie Universität Berlin and the University of Heidelberg	<b>1996–2005</b>	Section Head in the German Federal Environment Agency (Umweltbundesamt) in Berlin for environmental exposure assessment of chemicals (industrial chemicals, pesticides, biocides, veterinary and human medicinal products) within environmental risk assessment under the respective EU Directives and Regulations
<b>1969</b>	Dr. rer. nat. in Chemistry at the University of Heidelberg	<b>2004–2005</b>	Chairman of the OECD Task Force on Environmental Exposure Assessment of Chemicals; <a href="http://www.oecd.org/ehs">http://www.oecd.org/ehs</a> (June 2007)
<b>1970–1972</b>	Postdoctoral research fellow with George S. Hammond at the California Institute of Technology, Pasadena: Research in photochemistry	<b>2004, 2006, 2007</b>	Short-term expert in EU Twinning projects in Slovakia, Bulgaria, and Lithuania on environmental exposure assessment of biocides
<b>1972–1974</b>	Research fellow with Dietrich Schulte-Frohlinde at the Institute for Radiation Chemistry within the Max-Planck Institute for Coal Research, Mülheim/Ruhr: Research in radiation chemistry; <a href="http://ewww.mpi-muelheim.mpg.de/bac/institutsprofil/index_en.php">http://ewww.mpi-muelheim.mpg.de/bac/institutsprofil/index_en.php</a> (June 2007)	<b>2005 – ongoing</b>	Senior Special Fellow with UNITAR: Preparation of training material on the Globally Harmonised System for Classification and Labelling of Chemicals (GHS) and participation in workshops on GHS; <a href="http://www.unitar.org/cwg/ghs/index.html">http://www.unitar.org/cwg/ghs/index.html</a> (June 2007)
<b>1974–2005</b>	Civil servant in the German Federal Environment Agency (Umweltbundesamt) in Berlin	<b>2005– ongoing</b>	Short-term expert in EU Twinning project on the implementation of the EU Directive on biocidal Products in Turkey: Capacity and institution building, training in environmental risk assessment methodology
<b>1979–1981</b>	OECD, Environment Directorate, Chemicals Section: Preparation of the OECD Good Laboratory Practice (GLP) Guideline		
<b>1991–1996</b>	UNEP, International Register for Potentially Toxic Chemicals (IRPTC) in Geneva/Switzerland: Promotion of the database on chemicals, training of developing countries in using chemicals' data for assessment, in co-operation with UNITAR (United Nations Institute for Training and Research, Geneva) assisting developing countries in capacity and institution building for chemicals management		

### Member of Scientific Associations:

- German Chemical Society (GDCh)
- GDCh Division: Environmental Chemistry and Ecotoxicology
- Society of Environmental Toxicology and Chemistry (SETAC)

### Fields of Interest and Research:

- Environmental exposure assessment methodology
- Photo degradation of semi volatile organic chemicals
- Multimedia modelling of environmental fate of persistent organic chemicals
- Capacity building in environmental risk assessment of chemicals
- Capacity building in classification and labelling of chemicals

### Where I plan to take responsibilities in ESPR Subject Areas 4.2 and 4.3

As a retired civil servant of the German Environmental Protection Agency, I can bring in my knowledge in capacity building and training activities on chemicals risk evaluation and management.

### The challenges I have identified for Areas 4.2 and 4.3

Agenda 21 (1992, Rio de Janeiro, Earth Summit) describes in Chapter 19 'Environmentally Sound Management of Hazardous Chemicals' six programme areas:

- Expanding and accelerating international assessment of chemical risks
- Harmonization of classification and labelling of chemicals
- Information exchange on toxic chemicals and chemical risks
- Establishment of risk reduction programmes
- Strengthening of national capabilities and capacities for management of chemicals
- Prevention of illegal international traffic in toxic and dangerous products

The United Nations issued, since the Earth Summit, several legally binding Conventions and international Agreements on different aspects of chemicals management, among others:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (entry into force 1992), <http://www.basel.int> (June 2007)
- Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical Weapons and on their Destruction (entry into force 1997), <http://www.opcw.org> (June 2007)
- Rotterdam Convention on the Prior Informed Consent (PIC) Procedure on Certain Hazardous Chemicals and Pesticides in international Trade (entry into force 2004), <http://www.pic.int> (June 2007)
- Stockholm Convention on Persistent Organic Pollutants (POPs) (entry into force 2004), <http://www.pops.int> (June 2007)
- UN ECE Aarhus Protocol on Persistent Organic Pollutants (POPs) (entry into force 2003), [http://www.unece.org/env/lrtap/pops\\_h1.htm](http://www.unece.org/env/lrtap/pops_h1.htm) (June 2007)
- Globally Harmonized System for Classification and Labelling of Chemicals (GHS), [http://www.unece.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html) (June 2007)

Many developing countries have started to implement these Conventions and Agreements and achieved considerable progress in institution and capacity building concerning chemicals management. This was achieved – among others – by the programmes and pilot projects of the Nations Institute for Training and Research (UNITAR): Section 'Chemicals, Waste and Environmental Governance', <http://www.unitar.org/cwg/index.html> (June 2007). The achievements of UNITAR and other interna-

tional organisations as well as those of co-operating developing countries in chemicals' management strategies should receive more reflection in this Journal that so clearly expressed its interest to Subject Area 4 'Environmental Education, Science Communication, Science & Policy, Health Issues'.

#### Recent publications by B.O. Wagner and related literature

- Bunke D, Ahrens A, Reihlen A, Schenck H-P, Oenicke M, Faubel D, Wagner BO, Müller S (submitted 2007): Emission Estimation and REACH – Data Sources and their Use, submitted to ESPR  
 Klöpffer W (2005): Life Cycle Assessment as Part of Sustainability Assessment for Chemicals. *Env Sci Pollut Res* 12 (3) 173–177  
 Klöpffer W, Wagner BO (2007): Atmospheric Degradation of Organic Substances – Data for Persistence and Long-range Transport Potential. Wiley-VCH Verlag, Weinheim. ISBN 978-3-527-31606-9  
 Klöpffer W, Wagner BO (2007): Persistence Revisited (Editorial). *Env Sci Pollut Res* 14 (3) 141–142  
 Lammel G, Klöpffer W, Semeena VS, Schmidt E, Leip A (2007): Multi-compartmental Fate of Persistent Substances: Comparison of predic-

- tions from multi-media box models and a multicompartiment chemistry-atmospheric transport model. *Env Sci Pollut Res* 14 (3) 153–165  
 Scheringer M (2004): Persistent Organic Pollutants (POPs) in the Focus of Science and Politics (Editorial). *Env Sci Pollut Res* 11 (1) 1–2  
 Scheringer M (2005): Environmental Science – Quo vadis? Challenges for Environmental Science (Editorial). *Env Sci Pollut Res* 12 (4) 186–187  
 Scheringer M (2007): Atmospheric Degradation of Organic Substances – Data for Persistence and Long-range Transport Potential (Book review). *Env Sci Pollut Res* 14 (3) 143–144  
 Scheringer M, Fiedler H, Suzuki N, Holoubek I, Zetzsch C, Bergman A (2006): Initiative for an International Panel on Chemical Pollution (IPCP). *Env Sci Pollut Res* 13 (6) 432–434  
 Scheringer M, Stroebe M, Wania F, Wegmann F, Hungerbühler K (2004): The Effect of Export to the Deep Sea on the Long-Range Transport Potential of Persistent Organic Pollutants. *Env Sci Pollut Res* 11 (1) 41–48  
 Wagner BO (2002): Zweites UBA-Fachgespräch über Persistenz und Ferntransportpotential von POP-Stoffen, Berlin 6.–7. September 2001. UWSF – Z Umweltchem Ökotox 14, 268–270

## Atmospheric Degradation of Organic Substances

### Data for Persistence and Long-range Transport Potential

#### Handbook/Reference Book

**Authors:** Walter Klöpffer and Burkhard Wagner; Foreword by Klaus Günter Steinhäuser

**Publisher:** Wiley-VCH, Weinheim, 1st ed. February 2007. XV, 243 Pages, Hardcover. 149.00 Euro. ISBN-10: 3-527-31606-X; ISBN-13: 978-3-527-31606-9

**Short description.** This compilation on the degradation of 1,100 commercially important chemical products is the first publication to make this knowledge publicly accessible in one book. The data and annotations have been painstakingly assembled over a 10-year period in a collaboration between academia and regulatory authorities. The work explains in detail the methods, including computational ones, for the environmental assessment of volatile and semi-volatile substances, and is rounded off with data tables of degradation rates. A key resource for manufacturers and regulators of such substances.

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