



Introduction to the training movie: Passive sampling of ambient air - pre-cleaning of PUF disks

RESEARCH CENTRE FOR TOXIC COMPOUNDS IN THE ENVIRONMENT (RECETOX)
Masaryk University, Brno, Czech Republic
Stockholm Convention Regional Centre in the Czech Republic (SCRC)

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Stockholm Convention
Regional Centre for Capacity Building
and the Transfer of Technology

Final Results Workshop of the UNEP/GEF project on 'Establishing the Tools and Methods to Include the Nine New POPs into Global Monitoring Plan' and Inception Workshop for UNEP/GEF project on 'Continuing Regional Support for the POPs GMP under Stockholm Convention in the Africa Region', Ghana, Accra, 6-8 July 2016

Outline



Research Centre
for Toxic Compounds
in the Environment

1. About us - Who is RECETOX and what do we do?
2. Introduction to the training movie about passive sampling of ambient air
3. Movie screening “instructive movie for the cleaning of PUF disks”
4. Questions and Answers



RECETOX in brief



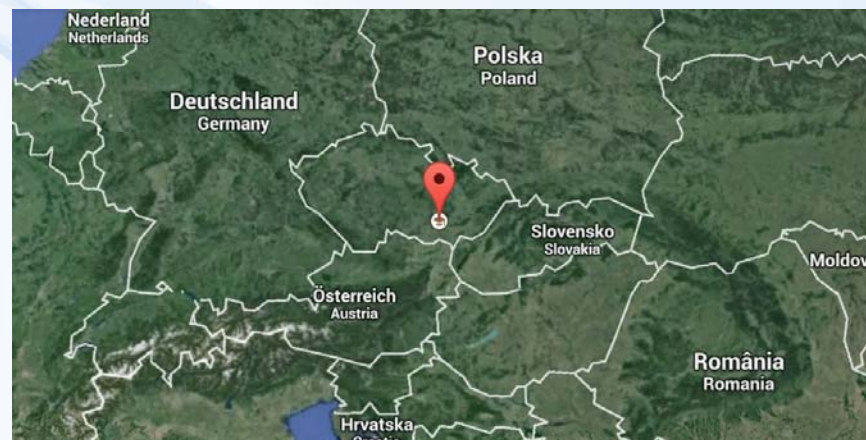
Research Centre
for Toxic Compounds
in the Environment

RECETOX , Faculty of Science,
Masaryk University, Brno,
Czech Republic

www.recetox.muni.cz

Functions

- Research and educational institution
- International Research Infrastructure – trans-national open-access
- Cooperation and Capacity Building
 - ✓ National Centre for Toxic Compounds
 - ✓ Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology in the Czech Republic supporting in particular Central and Eastern European Region



Staff and equipment

+200 employees, 4000 m² of research facilities, 85 Ph.D. students,
70 laboratories, 13 working groups in 4 Research Divisions, state of the art facilities,
instrumentation and other equipment, more than 30 years of expertise



About RECETOX - Structure

4 Research Divisions

1. Environmental Chemistry and Modelling
2. Organic Photochemistry and Supramolecular Chemistry
3. Protein Engineering
4. Ecotoxicology

3 Core Facilities - RESEARCH INFRASTRUCTURE

1. Trace Analytical Laboratories
2. GENASIS information system
3. ELSPAC database

Two internal bodies facilitating collaboration with stakeholders and marketing capacity, research outcomes and use of infrastructure:

1. National Centre for Toxic Compounds = technical support in implementation of chemical conventions (Basel, Rotterdam and Stockholm), SAICM and Minamata Convention on Mercury
2. Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology (SCRC Czech Republic)



Our work

Linking environment and health

Environmental policy, international conventions

Data evaluation, analysis, interpretation and modeling

Environmental management

Objectives: delivery of complex information to protect humans and ecosystems from environmental hazards and linking environment and health

Information management and development of databases

Environmental fate studies

Ecological and human risk assessment

Monitoring of environmental levels

Production and application of toxic chemicals

Assessment of harmful effects



Stockholm Convention Regional Centre

- Hosted by RECETOX
- established in 2007,
- endorsed in 2009, prolonged 2013, 2015
- provides support to the Stockholm Convention on POPs contracting Parties (countries) in its geographical region of the Central and Eastern Europe and beyond.
- chemicals management and management of wastes containing toxic chemicals by providing training, capacity building, expertise support in a number of fields

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Work also covers additional international instruments related to chemicals management – i.e. SAICM, Basel, Rotterdam and Stockholm Conventions), and Minamata Convention on Mercury



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RECETOX REGIONAL CENTRE Česky

HOME PAGE ABOUT US PROJECTS DOWNLOADS CONTACT

Stockholm Convention on persistent organic pollutants (POPs)

RECETOX
The Centre is an institute of the Faculty of Science, Masaryk University, which performs research, development, education, and expert activities in the field of environmental pollution by toxic chemicals.

monet

genasis

Centrum pro výzkum toxických látek v prostředí

POPs-GMP

EDUCATION

INFRASTRUKTURA

This website is information platform of the Stockholm Convention on Persistent Organic Pollutants Regional Centre for Capacity Building and the Transfer of Technology in the Central and Eastern Europe (hereafter "Regional Centre") hosted by the Research Centre for Toxic Compounds in the Environment, Masaryk University, Brno, Czech Republic.

The Regional Centre provides support to the Stockholm Convention contracting Parties (countries) in its geographical region of the Central and Eastern Europe as well as to other Parties interested in chemicals management and management of wastes containing toxic chemicals by providing training, capacity building, expertise support in a number of fields. More details on the goals, priorities and tasks of the Centre are in the part About us.

Background holds information on multilateral environmental agreements and on other strategic documents laying down mandates for the Regional Centre's work and activities. Overview of projects including summary and events calendar are in the Projects section. Specific information related to the Parties of the Central and Eastern Europe is in the menu Region.

Downloads contain activity plans, activity reports provided to the Stockholm Convention Secretariat and additional information related to the Regional Centre and its activities, projects, programmes and training courses.

We look forward to working with you!

NEWS

31.7.2014
NeedleNET project

21.7.2014
Cycling of persistent organic pollutants in the monsoon

15.7.2014
New project supporting the implementation of the Stockholm Convention

3.7.2014
CYANDCOST - Managing Risks of Cyanobacteria in European Water Bodies

Show all

CALENDAR

28/4 - 10/5 2013
Ordinary and extraordinary meetings of the conferences of the parties to the Basel, Rotterdam and Stockholm conventions

24-29/6/2013
9th Summer School on Toxic Compounds in the Environment





Monitoring networks



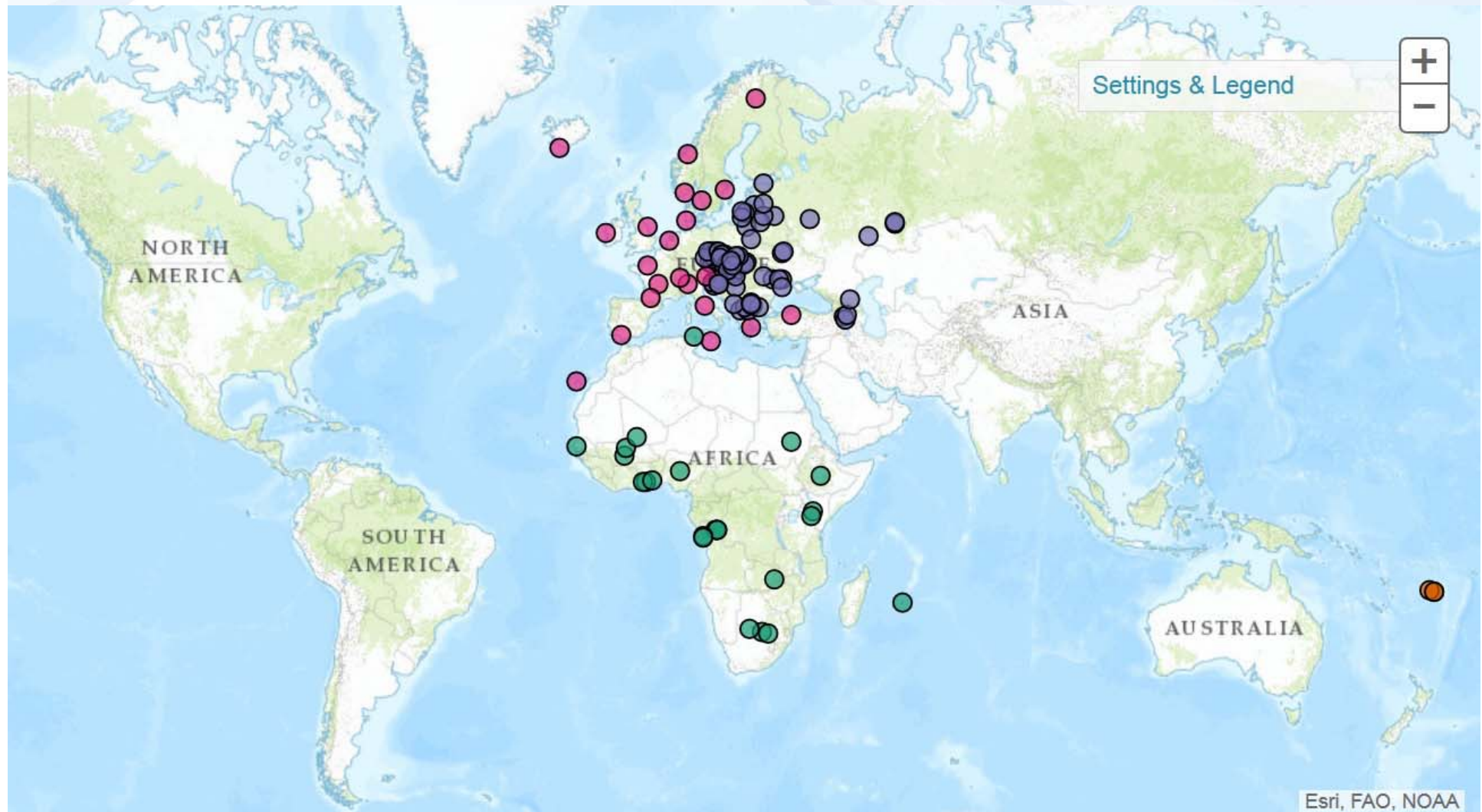
www.monet.recetox.muni.cz

MONET, MOnitoring NETwork, is a monitoring program operated by the Research Centre for Toxic Compounds in the Environment (RECETOX) of the Masaryk University in Brno, Czech Republic.

The programme aims at **detection of environmental contaminants (toxic chemicals) in air, water, soil, and biota by passive sampling** and spreads over the three continents - Europe, Africa and Asia.

Ambient air sampling is done by samplers with PUF disks.

MONET sampling sites worldwide





Chemicals covered in MONET

The MONET programme targets persistent organic pollutants, polyaromatic hydrocarbons, heavy metals, some endocrine disrupting chemicals and other toxic compounds including currently used pesticides), however the analyses differ between the individual MONET networks.

In relation to the Stockholm Convention, the MONET Africa follows a full set of the Stockholm Convention chemicals + some candidate chemicals.

All generated information is stored online in the GENASIS, environment data repository and portal at www.genasis.cz





Contacts for MONET activities

For more information on RECETOX's MONET activities or cooperation please contact:

Dr. Kateřina Šebková, PhD. (sebkova@recetox.muni.cz) - director of the Stockholm Convention Regional Centre for establishing a new cooperation

Dr. Petra Příbylová, PhD. (pribylova@recetox.muni.cz) - head of the Trace Analytical Laboratories for coordination of ongoing sampling and analyses of samples,

Dr. Roman Prokeš, PhD (prokes@recetox.muni.cz) - on sampling procedures, dispatching of materials and delivery of samples.





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Introduction to the training video





Introduction to the training video

General information

The video was produced by SCRC RECETOX for UNEP Chemicals and Waste Branch in spring 2015 as a training movie with instructions for the cleaning of polyurethane foam (PUF) disks used in passive samplers for ambient air.

The work was undertaken as a part of the UNEP/GEF project 4B97 “Establishing the Tools and Methods to Include Nine New POPs into the Global Monitoring Plan” for the component on POPs analysis and capacity building in developing countries.

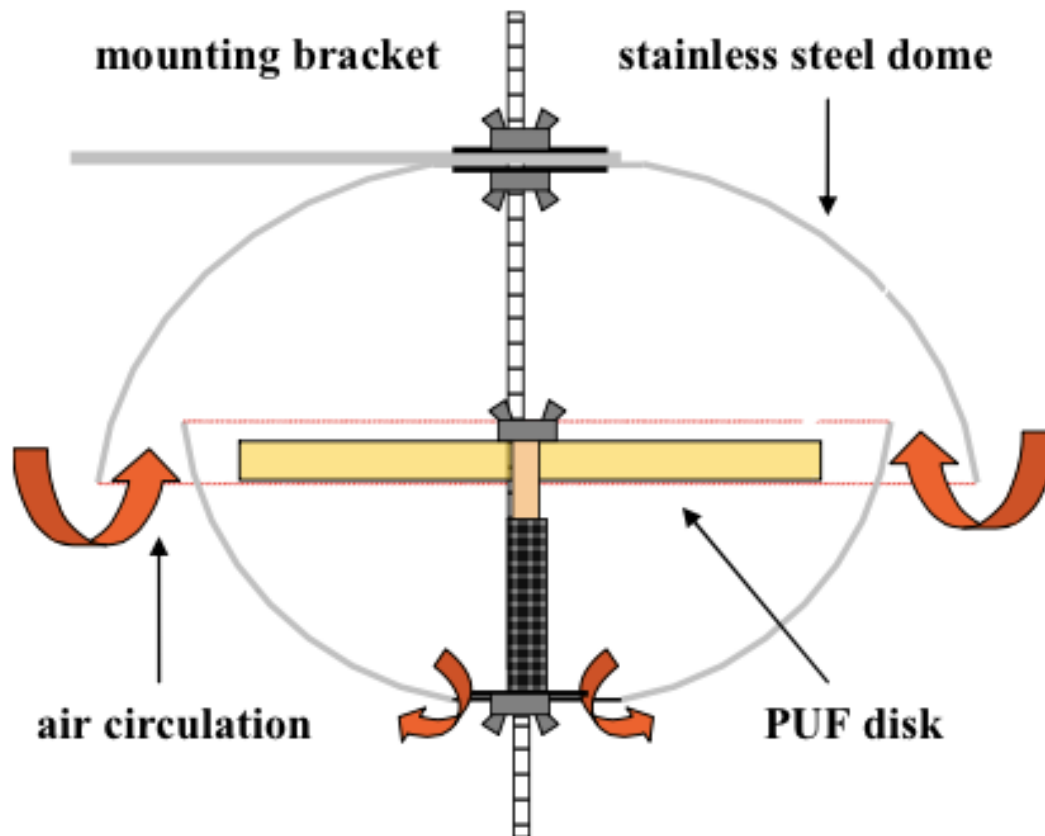
10 minutes long, voice-over in four languages (EN, FR, RU and ES).

Acknowledgements of involvement of the RECETOX research infrastructure laboratories and staff as well as comments received by GMP partners from Canada, Netherlands, Spain and Sweden.





Sampling device containing PUF disk - AIR



PUF = polyurethane foam



Introduction to the training video

The chapters:

1. Context and available guidance for monitoring under the Stockholm Convention
2. Availability of the polyurethane foam (PUF) and its shaping into PUF disks
3. Pre-cleaning procedures of the PUF disks
4. Storage of the clean PUF disks
5. Work in the field at the sampling site (preparation, necessary material, sampling protocol)
6. First deployment of the PUF disk (exchange of the disk) at the sampling site and recording of supplementary information
7. Transport of PUF disk to laboratory for analyses



Training video - PUF disks cleaning in detail

PUF disks pre-cleaning consists of these **steps** in the laboratory:

1. Cutting PUF disks from a purchased material (PUF sheets)
2. Setting up an extraction apparatus (Soxhlet extractor) by keeping sound laboratory practice and safety rules at work
3. Performing the extraction and exchange of solvents
4. Drying the pre-cleaned PUF disks
5. Packaging PUF disks for controlled storage (or transport)





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Screening of the training video





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Are there any Questions?





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Thank you for the opportunity to present our
work and for your kind attention





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National Centre
for Toxic Compounds

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To know more about RECETOX, please visit:

www.recetox.muni.cz

VIDEO: <http://youtu.be/JxmryXtdnKo>

NEWSLETTER (cz-en-ru): <http://www.recetox.muni.cz/index-en.php?pg=information-materials--recetox-newsletter>

INFORMATION MATERIALS: <http://www.recetox.muni.cz/index-en.php?pg=information-materials>

www.genasis.cz

www.pops-gmp.org

www.elspac.cz

