

Air Sampling Status Update

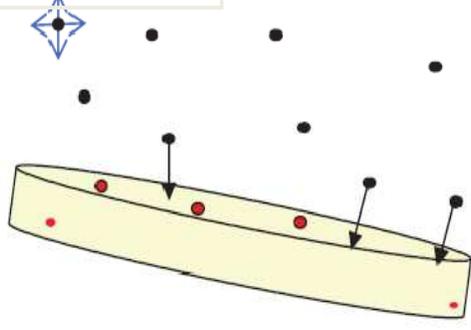


Who is Involved?

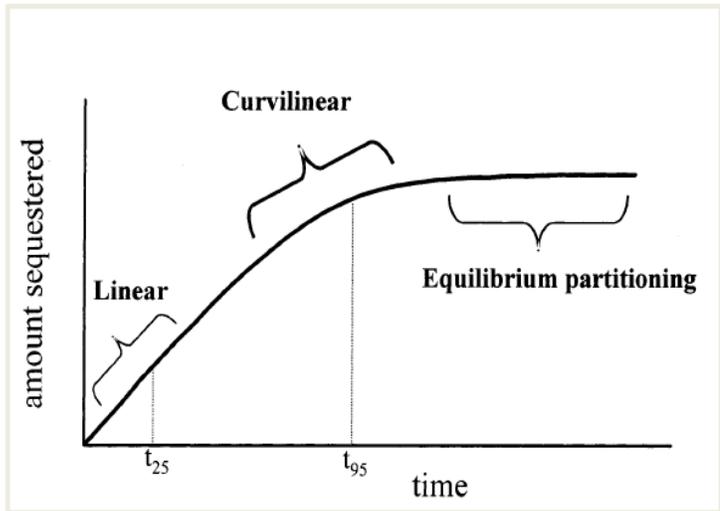
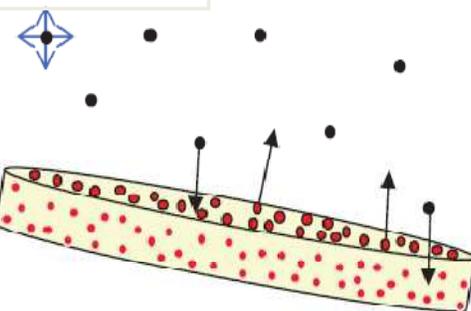
- **EPA Region 10**
- **EPA – Office of Research and Development**
 - **Site Characterization and Monitoring Technical Support Center**
 - **National Exposure Research Laboratory, Human and Atmospheric Sciences Division**
 - **Scientific, Technical, Research, Engineering and Modeling Support**
 - **EPA Regions 3, 4, and 5**
- **Battelle**
- **University of Washington**

Theory of Passive Sampling

Linear Phase



Equilibrium



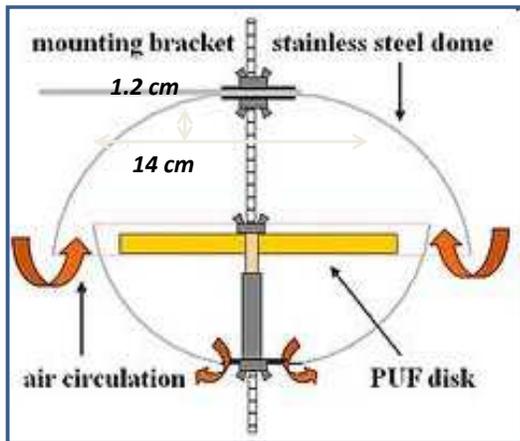
Shoeib and Harner (2002), Bohlin et al, 2010

Theory of Passive Sampling

Part 2

$$C_{PSM} = K_{PSM} \times C_A \times \left(1 - e^{[(A_{PSM})/V_{PSM}](k_A / K_{PSM-A})t}\right)$$

Polyurethane Foam Passive Sampler



J. Armstrong 2012

Picture: Shoeib and Harner (2002)

Pictures: Yakima Valley, 2011



Where are we now?

- **Technical Directive issued March 1**
- **Draft Statement of Work submitted mid-April, EPA comments on technical approach and costs under discussion.**

Technical Challenges

- **Different analytical methods, GC methods more expensive**
- **Lack of standardized methods for all herbicides?**
- **Different chemical properties may mean multiple samplers to address all chemicals**

Different Properties

	log K_{OA}
Atrazine	14.7
2,4-D	14.1
Hexazinone	16.2
Imazapyr	21.5
Sulfometuron Methyl	21.7
Metsulfuron Methyl	17.5
Clopyralid	13.3
Triclopyr	11.1
Aminopyralid	19.5
Picloram	10.9