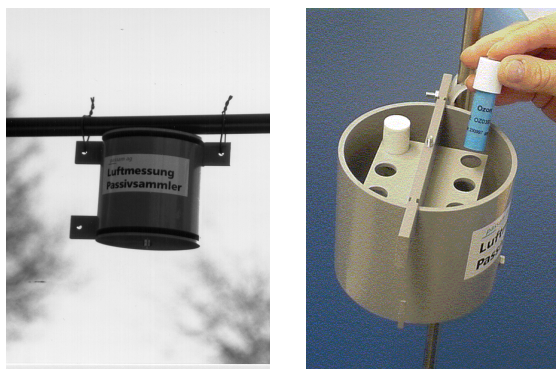


Diffusive Sampler for Ozone

Enclosed: diffusive samplers for Ozone and sampling records for noting monitoring site and exposure times. The samplers are marked with a passam code.

Installation of monitoring site

The diffusion tubes are placed, with the open end in a shelter to protect them from light and to minimize the influence of strong wind. In the absence of other requirements samplers should be exposed at heights of 2 - 3 m above the ground in positions of unrestricted air movement. In order to avoid sampling in the O₃ depleted boundary layer close to walls, preferred sites are free standing columns, lamp posts etc. The samplers should not be easily reached by unauthorized persons and be located in situations where loss through theft or vandalism are unlikely.



Mounting of ozone diffusive samplers

Description of monitoring site

The concentration value is representative only for the immediate sampling site. To interpret ambient values it is important to have a precise description of the monitoring site, and if possible a photographic documentation.

Monitoring

At the beginning of sampling the lower stopper is removed from the sampler allowing Ozone₂ to

diffuse along the tube. The stopper is retained and replaced at the end of the sampling period.

Project: Bern TH (Example) Color of tube: blue

Site Code	Code passam	Start Date	Time	End Date	Exposure time	hours	Remarks
Wood fence line	FBE1	12.6.01	12:00	19.6.01	12:00	168	insects
Park	FBE4	12.6.01	12:10	19.6.01	12:10	168	
Kindergarden	FBE27	12.6.01	12:25	19.6.01	12:55	168.5	dropped

Note: For proper identification of samplers and correct assignment to monitoring site passam code has to be noted on the record.

The exposure time is strictly limited to one week.

At the end of sampling the stopper is replaced and the end of sampling period is noted on the protocol.

Storage and mailing

Exposed as well as unexposed sampler must be stored in a refrigerator; Shelf life is 4 month before use and 2 month after exposure.

Please do not leave the samplers in a closed car that is exposed to direct sunlight or extreme temperatures.

The exposed sampler should be sent back regularly, at least every 8 weeks, to the laboratory for analysis.

Calculation of results

The ambient concentration is calculated according the following formula::

$$C_u = \frac{\text{absorption} - \text{blank [mabs]}}{0.0255 \cdot t}$$

C_u: ambient concentration [µg/m³]
 0.0255: empirical calibration factor
 t: exposure time [hrs]

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