

I. A. THE LEITMOTIV

Scientists, teachers, students: all working together for new scientific knowledge

I. B. SCIENTIFIC BACKGROUND

How is the atmospheric CO₂ concentration distributed in the territory?
 How different land uses influence on the CO₂ concentration distribution?
 How many ppmv above the background level is the CO₂ concentration measured in our city?
 Is the CO₂ concentration disturbed by local breezes (sea/land breezes, katabatic winds...)?

I. C. HOW TO MEASURE ATMOSPHERIC CO₂ MIXING RATIOS



Instruments

Vaisala CarboCap
 Portable meteorological station
 Portable anemometer
 GPS and topographic map

Variables

[CO₂]
 HR(%), T(°C)
 wind speed (m/s) and direction (degrees)
 atmospheric pressure (hPa)
 latitude, longitude, altitude

Worksheet

Settlement of measurement sites

Requisite: open and ventilated sites

All measured parameters and a description of sites are written down in the worksheet

II. PARTICIPATING SCHOOLS

III. SCHEDULE OF ACTIVITIES FOR 2008-09

- Sep-Oct '08:** Teachers and scientists meet to define the path and the measurement sites
- Oct'08 – Jan'09:** Scientists visit school: scientific talk + atmospheric CO₂ workshop
- Jan '09 - ...:** Students, with teachers and scientists, take CO₂ measurements in the defined path
- Mar – Apr '09:** Scientists visit schools to interpret data and discuss results together with students and teachers
- May'09:** Students prepare their own presentations (posters, ppt, ...)
- Jun '09:** Final meeting: students from different schools communicate their own results