

Title : Links-controlled flux & effects experiments including new thresholds
VOC- Ozone

Time : 26.10.2011 11:00 – 12:00 h

Chair : Thomas Mentel Juelich

Attendees : Ca. 20, see list WP2, WP10, WP11,
WP12

Minutes by : Thomas Mentel Juelich

Aim

Presentations

Mentel (Juelich): VOC emission and O₃ fate an atmospheric chemistry point of view

Fares (CNR): The role of VOCs as defence against oxidants: past results and new frontiers for ECLAIRE

Mills (CEH): Implications of BVOCs for ozone measurement regimes in experiments

Topics discussed with Issue, decisions/conclusions and actions

Issue: O₃ – Deposition – role of VOC

Decision: Optimum: use seedlings (including soil in some cases) from field sites in lab studies

Minimum: use same species in lab studies (same supplier)

Species: Mediterranean and Poplar

Action: Labs keep contact to WP 2.1 and to field sites (continuous process)
CNR offers to take sample cartridges at selected effects field sites and measure the BVOC spectrum
Coordinate lab studies in Juelich and at CNR
Agreement on stressors and climate factors (heat and drought)

Issue: Implementation of O₃ loss and self protection in DO3SE-model

Decision: Need to separate chemical loss (air chemistry), dry deposition via stomata and dry deposition via loss at surface (including soil)
Exposure indices need to distinguish between BVOC protection through O₃ destruction in the air and within the leaf
Determine O₃ effect on the stomata

Issue: Enhanced nighttime loss of O₃ in Bangor solardome enclosures in later growing season

Discussion: Flowering plants may emit reactive compounds during night?
Mixing effect in dense canopy?

Decisions

Action	Due	Who
Note interest for VOC cartridge sampling at effects sites with Silvano Fares	31 Jan 2012	Operator of effects sites