R. J. Yokelson - Laboratory experiments (2001)

2001 Laboratory Instrument Intercomparison with Max Planck Institute and UC Irvine -

2001 Intercomparison Photo Gallery

* *Description* - Verifying the accuracy of measurements is a crucial part of any science program. Since our OP-FTIR cannot have sampling artifacts we have co-deployed it in well-mixed smoke with our closed cell AFTIR system to verify good performance for the latter (Yokelson et al., 2003). This is a novel QA/QC technique that we also used to test a proton transfer reaction mass spectrometer (PTR-MS) in conjunction with scientists from the Max Planck Institute for Chemistry. As part of this co-deployment with the PTR-MS we have made the most detailed laboratory measurements ever of the emissions from fires burning in fuels sampled in Africa and Southeast Asia. These two locations are first and second globally in the amount of biomass burning. Two papers (Christian et al., 2003; Christian et al., 2004) describe these first comprehensive measurements of the emissions from fires burning in Indonesian fuels and the first ever intercomparison of PTR-MS, GC, and FTIR.