



The OH and O₃ reactions with unsaturated alcohols

F. Oussar, G. Solignac, V. Daële, A. Mellouki

*LCSR/CNRS, 1C avenue de la recherche scientifique 45071 Orléans cedex 02-France
(mellouki@cnrs-orleans.fr / Fax : (33)238696004 / Phone :(33)238257612)*

Unsaturated alcohols are used in different industries. Once released into the atmosphere, these compounds may play an important role in urban pollution. The atmospheric oxidation of these oxygenated compounds could contribute to the formation of ozone and other secondary pollutants. In the troposphere, these unsaturated compounds react with OH and NO₃ radicals and with O₃. To date, a limited number of studies have been performed on this type of unsaturated alcohols. Therefore, kinetic and mechanistic data are needed in order to determine their lifetimes in the troposphere and to assess their contribution to urban pollution.

We have studied the reactions of OH and O₃ with three unsaturated alcohols using a photoreactor and the pulsed laser photolysis – laser induced fluorescence. The obtained results will be presented and compared to the reactivity of other unsaturated VOCs towards OH radicals and O₃.