

USE OF CAVITY RING DOWN SPECTROSCOPY IN ATMOSPHERIC STUDIES

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The Cavity ringdown spectroscopy is a very versatile tool that has found many applications in the studies of the atmosphere. I will describe the use of CRDS in laboratory studies of atmospheric chemistry and photochemistry, measurements of NO₃ and N₂O₅ in the atmosphere, quantification of aerosol extinction, and measurements of absorption cross sections needed for climate studies. The relevant atmospheric processes will be described and the needed information will be discussed. Examples of the relevant information from our laboratory studies will be presented.