

I will be giving an overview of several years of research performed within the framework of the CLOUD experiment at CERN, presenting the main results with respect to new particle formation as well as aqueous phase production of sulphate and organic aerosol. The atmospheric implications of the results will be discussed, and the laboratory results will be contrasted with measurements obtained in the atmosphere at high altitude sites. I will finish by presenting ongoing work based on the latest CLOUD campaigns which were aimed at understanding new particle formation in urban environments.