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A new method to retrieve the real part of the equivalent refractive index of atmospheric aerosols

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Abstract

In the context of the international experimental campaign Hygroscopic Aerosols to Cloud Droplets (HygrA-CD, 15 May to 22 June 2014), dry aerosol size distributions were measured at Demokritos station (DEM) using a Scanning Mobility Particle Sizer (SMPS) in the size range from 10 to 550 nm (electrical mobility diameter), and an Optical Particle Counter (OPC model Grimm 107 operating at the laser wavelength of 660 nm) to acquire the particle size distribution in the size range of 250 nm to 2.5 μm optical diameter. This work describes a method that was developed to align size distributions in the overlapping range of the SMPS

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