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# CCN activation of laboratory-generated soot particles with ammonium sulphate and levoglucosan coating

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During the measurement campaign LExNo (LACIS Experiment in November) the CCN activation of coated soot particles was investigated (see also EGU abstract "LExNo – Hygroscopic growth and activation of laboratory-generated aerosol particles imitating combustion aerosols" by Wex et al.). Spark discharge soot particles were generated and coated with ammonium sulphate and/or levoglucosan to imitate aged biomass burning aerosol. Four instruments determining the critical supersaturation needed for activation of particles into cloud droplets were operated, one DMT CCN counter (Roberts and Nenes, 2005), two Wyoming type CCN counters (Snider et al., 2003), and the LACIS (Leipzig Aerosol Cloud Interaction Simulator, Stratmann et al., 2004). The preliminary results show that 1) all CCN counters and LACIS are in good agreement for all different types of aerosol and 2) the critical supersaturation for activation decreases with increasing coating to soot mass ratio. Different calibration and modelling approaches for CCN activation will be compared.

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