

APPLICATION OF SPHERICAL FLY-ASH PARTICLES TO STUDY SPATIAL DEPOSITION OF ATMOSPHERIC POLLUTANTS IN NORTH-EASTERN ESTONIA

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Spherical fly-ash particles, emitted to the atmosphere in the high-temperature combustion process of fossil fuels, were found in considerable amounts in analysed snow samples of north-eastern Estonia. Spatial deposition of particles in snow cover is compared with the results of surface sediment samples of lakes. The results from snow characterise well the distribution of pollution sources and the distance from the main power plants in north-eastern Estonia. Variations in particle deposition of closely situated snow samples were found to be negligible. Fly-ash particle influxes in snow samples correlate well with modelled maximum concentration fields of fly-ash in the near-surface air layer.