

Mineralogical and meteorological analyses of small solid materials in acid snow

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Snow collected along the coasts of Japan Sea contained solid particles and oil-like materials that were composed of C, O, S and small amounts of metals. Si-Al spherules, which are known to be formed by burning of coal, were also contained. Spherules of the largest size were found in Wakkanai whereas smaller spherules were found in Niigata area. Oil-like materials increased in amount just after the change of the direction of wind from the Southern to Northwestern.

Examination of a single snow crystal by light microscopy revealed black particles at its tips. Such special site of particle on snow crystals may serve to identify where they were contaminated.