National Trends Network, Sample Evaporation

Mark Rhodes, Lydia Douglas, Caroline Koch, and Tracy Dombek University of Illinois

The National Atmospheric Deposition Program's National Trends Network (NADP/NTN) collects weekly precipitation samples across the United States. Samples are analyzed for acids, nutrients, and base cations. NTN samples may be deployed for up to 194 hours and remain valid. During that time evaporation of the sample may occur. The impact of evaporation on sample chemistry is not well defined. In this study, sample evaporation is considered in 3 different locations: a climate controlled laboratory, an open field, and a protected courtyard. In addition, two different sample volumes (150mL and 500mL) are considered. Results from a 12 week study conducted June - September 2011 are presented.