The aim of this bachelor thesis is to summarize available approaches for quantification of occult deposition of sulphur and nitrogen from fog and rime. Atmospheric deposition is a complex of processes by which pollutants are transferred from the air to the earth's surface and therefore it contributes to the atmosphere's self-cleaning. At the same time it represents an input of these pollutants to other components of the environment. Atmospheric deposition consists of dry deposition, which occurs in the absence of precipitation, and wet deposition, which occurs during precipitation. Wet deposition further consists of a vertical component (rain, snow, hail) and an occult component (fog, rime, hoarfrost). The common approach to quantifying total deposition nowadays is simply combining dry plus vertical wet deposition. But when applying this approach and neglecting occult deposition we are likely to substantially underestimate the true total deposition (e.g. Hůnová et al., 2011). This means we don't know the actual amount of pollutants transferred to the environment. The importance of occult deposition rises with increasing altitude (Lange et al., 2003). Occult precipitation also often contains higher concentrations of ions and stays longer in contact with the vegetation than vertical precipitation. There are great uncertainties in values of occult deposition because of its temporal and spatial variability. Occult deposition is at present measured in only a small number of stations and when extrapolating the data, unacceptable distortions occur (Ostatnická et al., 2012). There are a several approaches for quantifying occult deposition, but many of them require a lot of quality input data which are not always available. This thesis focuses on method for quantifying occult deposition of sulphur and nitrogen compounds from fog and rime, which lower the pH of precipitation and therefore cause acid deposition and acidification of the environment; the nitrogen compounds also contribute to eutrophication.