

[1]王艳秋,杨晓丽.哈尔滨市降水形势对大气污染物浓度稀释的影响[J].自然灾害学报,2007,05:65-68.

WANG Yan-qiū,YANG Xiao-li.Influence of precipitation condition on dilution of atmospheric pollutant concentration in Harbin City [J].,2007,05:65-68.

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哈尔滨市降水形势对大气污染物浓度稀释的影响(PDF)

《自然灾害学报》[ISSN:/CN:23-1324/X] 期数: 2007年05期 页码: 65-68 栏目: 出版日期: 1900-01-01

Title: Influence of precipitation condition on dilution of atmospheric pollutant concentration in Harbin City

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关键词: [降水](#); [大气污染物](#); [季节](#); [稀释](#)

Keywords: [precipitation](#); [atmospheric pollutant](#); [season](#); [dilution](#)

分类号: P426.615

DOI: -

文献标识码: -

摘要: 大量的观测事实和分析表明,随着季节的变化,降水对大气污染物浓度稀释的影响是比较复杂的。冬季,降雪越多,严重污染出现的概率越大;降雪时的天气往往风速小,湿度大,空气层结较稳定,扩散能力较弱。春季,降水对污染物浓度的影响就大一些,降水对PM₁₀有较大的稀释作用,尤其对NO₂稀释的影响更大一些,高湿的低温东风雨水对污染物浓度有降低的作用。夏季,降水大于等于10.0 mm时高温高湿降水对污染物的稀释作用较大。秋季,高湿气压降低,降水10 mm以下,对污染物浓度有降低的作用。

Abstract: Large amount of observation and analysis shows that influence of precipitation on dilution of atmospheric pollutant concentration is more complicated, because of seasonal variation. In winter, the more the snow fall, the large the probability of pollution. At snowing time, the weather is often so that the wind speed is small, the air moisture is large, the air stratum is more stable and its diffusion capability is weak. In spring, the influence of precipitation on pollutant concentration and on dilution of PM₁₀ and NO₂ is obvious. The weather of high moisture and the rainwater with lower temperature plays a part in decreasing pollutant concentration. In summer, when the precipitation is equal to or larger than 10 mm, the weather with high temperature and moisture has an obvious effect on dilution of pollutant concentration. In Autumn, the decrease of air pressure with high moisture and the precipitation below 10 mm perform a function to reduce the pollutant concentration.

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备注/Memo: 收稿日期:2007-1-30;改回日期:2007-6-10。

基金项目:环境监测站合作项目(20030503)

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更新日期/Last Update: 1900-01-01