Variation of SO₂ concentrations during the period of Yellow Sandy Events

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Analysis of hourly variations of sulfur dioxide (SO_2) concentrations affected by regional climates was carried out from March 31 through April 9, 1993. The concentration of SO_2 concentrations show the similar tendency at both cities. When sulfur dioxide under the prevailing synoptic westerly winds blowing over Taegualyang Mt. was trapped by the sea-breeze and the high wall of mountain during the day, its high concentration was detected from 14 P.M. to 16 P.M. at Kangnung.

On the other hand, when the westerly winds were dominent all day long, its high concentration at Kangnung was due to its intrusion from Wonju into Kangnung, to some extent, and when the air becomes rapidly cooled down, it is also affected by a great amount of fuel combustion. Especilly, its maximum was shown in Wonju and Kangnung from 8 A.M. through 10 A.M. and were detected again after sunset. During period of Yellow sandy dust which blew from China into Korea, its concentrations on the rainy days at Wonju and Kangnung were much lower than the monthly mean through scanvenging processes.