Study of the effect of green areas on the thermal environment in an urban area

Abstract

This paper gives details of investigation results of the relationship between meteorological elements and green distribution in an urban area. The meteorological elements were measured in large and small areas of Kumamoto City. In the large area, the measurements of air temperature were carried out by moving observation using five automobiles. In the small area, the measurements of dry-bulb temperature, wet-bulb temperature, globe temperature, wind direction and velocity were carried out on foot. The land-cover condition and surface temperature were estimated using remote-sensing data from an airplane.

From the results of these investigations, it became clear that air temperature distribution in an urban area is closely related to the distribution of green covering and even a small green area of about $60 \text{ m} \times 40 \text{ m}$ indicates the cooling effect.

References (4)

O. Ishihara et al.

Analysis of Thermal Environment in Kumamoto City

O. Ishihara et al.

A study of urban climate in Kumamoto City

There are more references available in the full text version of this article.