A Science Service Feature

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? WHY THE WEATHER ?

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OZONE

The presence of ozone in the air, first reported by the German chemist Schoenbein in 1840, began to be a subject of great popular interest after the middle of the nineteenth century. This substance was supposed to be especially abundant in the air of forests, mountains and the seashore and to be endowed with health-giving properties. Tests for ozone were made by moistening and exposing strips of paper steeped in a solution of potassium iodide and starch. An ozone-laden atmosphere turns such paper blue, and the intensity of the color, expressed according to an arbitrary scale of tints, was supposed to indicate the amount of ozone present.

Tests with ozone-papers are now known to be unreliable, because these papers are affected by various substances in the atmosphere other than ozone. Accurate air analyses show that the amount of this gas naturally present at any time in the lower atmosphere is so minute that it can be of no hygienic importance. Though it is formed by lightning discharges and probably by other natural agencies, it promptly enters into chemical union with oxidizable substances and therefore has only a transient existence. On the other hand, ozone is now known to be relatively abundant at very high levels in the atmosphere, where it is supposed to exercise important effects on the temperature of the air below as well as on the quality of solar radiation that reaches the earth's surface.

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