

small up to 80% relative humidity. For all measurements reported here only values at relative humidities below 80% in the lower layers, where most of the aerosol is concentrated, were used. This avoids a correction of weighting functions in Fig. 1, which show a strong dependence on the real part of the refractive index.

The results of an inversion of attenuation measurements (Fig. 6) on 2 days in October 1970 at Maisach near Munich, West Germany, therefore represent the best size distributions now attainable by inversion of spectral attenuation data. Naturally the measured signals at  $10.4 \mu$  are more uncertain than those in the visible region where correction is easier and signals are strong. Computer time for one iteration with about fifty iteration periods was 0.5 sec on an IBM 360/91.

The inversion method by iteration, presented here for aerosols and in an earlier publication<sup>1</sup> for water clouds, is suitable for all polydispersions of particulate matter. The only condition for a successful iteration is the existence of weighting functions for all radius regions of the distribution and, therefore, the knowledge of the index of refraction of the particles.

## References

1. H. Grassl, *Contr. Atm. Phys.* **43**, 255 (1970).
2. G. Yamamoto and M. Tanaka, *Appl. Opt.* **8**, 447 (1969).
3. K. S. Shifrin and A. Y. Perelman, *Tellus* **18**, 566 (1966).
4. S. Twomey and H. B. Howell, *Appl. Opt.* **6**, 2125 (1967).
5. G. N. Plass and G. W. Kattawar, *Appl. Opt.* **6**, 1377 (1967).
6. K. Fischer, *Contr. Atm. Phys.* **43**, 244 (1970).
7. D. Deirmendjian, *Electromagnetic Scattering on Spherical Polydispersions* (Elsevier, New York, 1969).
8. L. Elterman, AFCRL-68-0153, Environmental Research Papers 285.
9. P. J. Wyatt, V. R. Stull, and G. N. Plass, Final Report SSD. TDR-62-127, Vol. 2, Contract AF 04(695)-96.
10. K. Bullrich, *Adv. Geophysics* **10**, 99 (1964).
11. G. Hänel, *Contr. Atm. Phys.* **43**, 119 (1970).

## ISCC Conference on Color of Fluorescent Materials

The Inter-Society Color Council is sponsoring a Conference on Color of fluorescent materials to be held in Williamsburg, Virginia, on 6-9 February 1972. Eight invited papers will cover a fairly large segment of the field. The object of the Conference is to point out the problems connected with measurements and evaluation of materials containing fluorescent additives; discuss the contribution of fluorescent whitening agents to whiteness of papers, textiles, paints, and printing inks; and to stimulate the research in this field. The tentative program includes: **G. Wysecki** (Exposition of the Basics of Fluorescence Problems); **F. Grum** (Measurements of Fluorescent Materials); **E. Allen** (Special Topics in Measurement of Fluorescence by Components and Determination of Quantum Efficiency); **E. Ganz** (Detergents and Textiles—Fluorescent Whitening Agents); **A. Stenius** (Application of Fluorescence to Paper); **H. Hemmendinger** (Fluorescence and Fundamental Light Absorption Mechanism with Practical Application to Light Fastness and Photodegradation); **R. Ward** (Fluorescence in Paints and Printing Inks); and **H. Aach** (Application of Fluorescence to Art and Design). After each paper, the time for discussion will be reserved and a panel of experts on a particular field covered will be available to help answer the questions that may arise. Some time will be devoted to demonstrations and exhibits to help illustrate the concepts involved. For further information write to Co-Chairmen: Franc Grum, Research Laboratories, Eastman Kodak Co., Rochester, New York 14650; or Eugene Allen, Lehigh University, Bethlehem, Pa. 18015