number of advantages in the analysis of compounds of this type; yet few publications have appeared. A method has been developed whereby the air is sampled with a cooled scrubbing solvent, and qualitative and quantitative determinations of single or multiple component vapor-air mixtures are made with an infrared spectrophotometer using a 1.0-mm. cell. A chart of the principal peaks of the spectra of 15 chlorinated hydrocarbons is presented, and methods of measuring recorded spectra and preparing standard curves are described. Recoveries averaged 97%, with an average deviation of 6%. As little as 0.04 mg. of chlorinated hydrocarbon per ml. of sampling solution can be analyzed. By using the proper solvent, the method may be adapted for the determination of the vapors of other organic compounds.

-- Authors' Summary

1030 Portable Slit Ultramicroscope for Determining the Concentration of Submicroscopic Particles in the Air of Industrial Establishments. E. S. Belkin and A. I. Kosenko. Gigiena i Sanit. 21, 50-51 (Aug. 1951) Russian.

A portable ultramicroscope is described. The aerosol to be investigated is aspirated by means of any available suction device. The apparatus has been used successfully in mines and factories.

-- Nuclear Sci. Absts.

PREVENTIVE ENGINEERING

1031 Auxiliary Mine Ventilation. H. Middendorf. Mechanisches Auffahren von Strecken. 105-110 (1950) German.

This paper summarizes up-to-date information on auxiliary mine ventilation, a subject which becomes more important as the length, depth, and temperature of mine workings increase. In principle, exhaust ventilation is better than blowing, but in long and hot roadways blowers are also necessary. Two procedures have been recently introduced for protecting men during and after shot-firing. One is the use of steel shelters under excess air pressure; the other is the use of mist curtains. The main part of the paper discusses engineering detail. Fans drawing air directly from the outside are better than fans in series. Double units can be designed so that the pressure can be increased as the workings are lengthened. In order to overcome heating by electrical fans, motors with long shafts have been built so that