

A simple apparatus for rapid drying of paper strip chromatograms

The apparatus described was developed for rapid drying of paper strip chromatograms at room temperature. Several strips of various length can be simultaneously dried in this simple apparatus. The model used in this laboratory is shown in Fig. 1 and consists of a glass tube, 6 cm in diameter and 30 cm in length, clamped vertically in a stand and fitted at the lower end with a glass Buchner funnel of 6 cm bottom diameter. The tube is tightly fitted to the funnel by means of a rubber tube about 8 mm in diameter. A special device for hanging paper strip chromatograms is placed

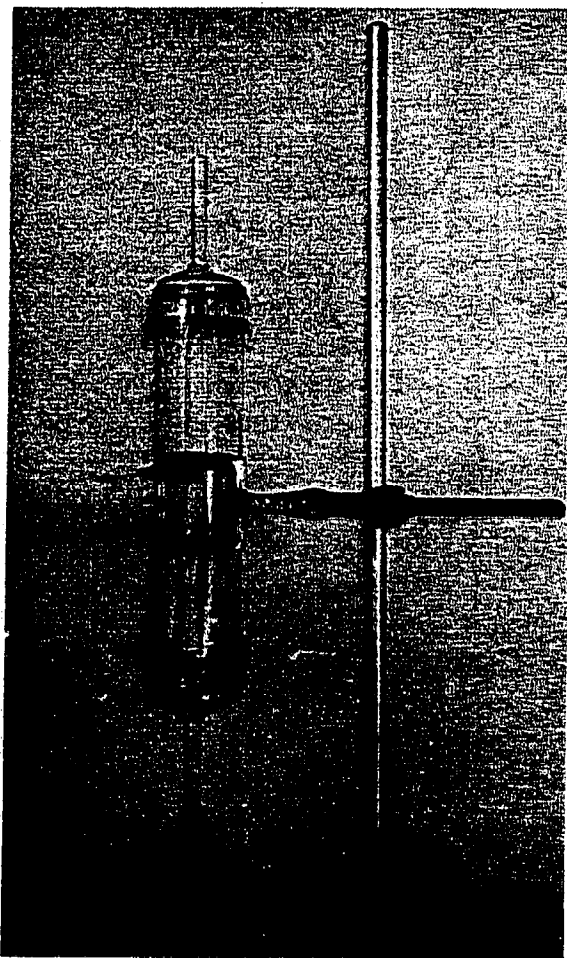


Fig. 1.

on top of the tube. The construction and the dimensions of this device are shown in Fig. 2. It consists of a ring 3 cm in diameter made of stainless steel wire (1 mm), to which two crossed stainless steel strips 3 mm wide and 0.5 mm thick, are attached. The ends of the strips rest on the top of the tube and the device with chromatograms suspended from the ring by wire hooks at suitable intervals, is kept in position by the bends in the strips, as can be seen in Fig. 3. After the chromatograms have been attached to the ring, the top of the tube is covered with another funnel, the connection between

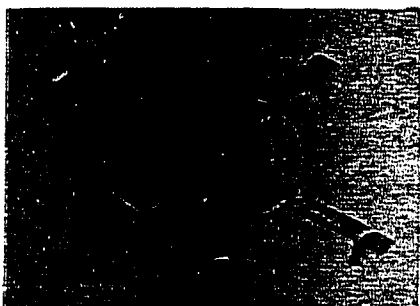


Fig. 2.



Fig. 3.

the tube and the funnel being made in the same way as for the lower funnel. The outlet of the lower funnel is connected by means of a rubber tube to a water jet pump. With the aid of this pump a continuous stream of air is made to flow through the device. The air stream flows around the strip chromatograms and increases the rate of drying.

The apparatus can be easily adapted for drying paper strip chromatograms in inert gases and at elevated temperature.

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The separation of C₆-C₁₂ dibasic acids in the presence of monobasic acids A simple procedure by paper chromatography

The separation by paper chromatography of dicarboxylic acids has been described by FINK AND FINK¹, KALBE² and SEHER³. These methods necessitate the preparation of derivatives or salts, or the use of swamp acids. They are unsuitable when monobasic acids are present because their R_F values lie close to those of the dibasic acids which it is desired to separate. In such cases the technique of ZBINOVSKY⁴ using silica gel columns is available. The procedure described is a modification of this method which allows the separation to be carried out readily on paper.

A mixture of 9 parts of redistilled technical grade methyl cellosolve, b.p. 124°, and 1 part of distilled water was shaken with an equal volume of reagent grade *n*-butyl ether and the two layers separated. The upper layer was retained for the mobile phase and the lower for the stationary phase. A sheet of Whatman No. 1 paper (57 cm × 46 cm) was passed once through the methyl cellosolve water layer contained in a shallow dish and allowed to drain for 5 min at room temperature (20°). The mixed acids were dissolved in acetone and aliquots of 0.02 ml containing 10-50 μg of acid

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