

SHORT COMMUNICATIONS

A simple device for the simultaneous development of several two-dimensional chromatograms

There are several methods of carrying out the ascending development of chromatograms. The simplest of them consists in immersing the rolled-up chromatogram in the solvent system placed on the bottom of the chamber¹. DATTA, DENT AND HARRIS² described an apparatus for the vertical development of several chromatograms.

In our laboratory, a simple device has been constructed for the simultaneous ascending development of several chromatograms in a single chamber.

The device consists of a wooden cross-shaped stand, with glass rods fastened to the end of each of the four arms. These rods have sharp points and are parallel to one another (Fig. 1a). Short pieces of glass tube can be slipped on the rods between the chromatograms in order to prevent them from touching one another (Fig. 1b).

All the four corners of the paper squares are then perforated and the chromatograms are slid on the rods one by one, on both sides of the stand (Fig. 2a).

When the chromatograms are in place, four small supports made of glass, are fitted on the ends of the two lower rods; the purpose of these supports is to hold the stand upright and to prevent the lower edges of the chromatograms from bending (Fig. 2b).

The whole set-up is then placed in the glass development chamber containing the solvent system at the bottom (Fig. 3). After the chromatograms have been developed, the whole stand is removed from the chamber by means of a handle (Fig. 1c) and placed in the desiccator.

When a change of the direction of development is required, the stand is turned 90°, and one pair of supports is transferred to another rod (Fig. 4).

The device described above is especially useful in serial experiments, when it is essential to maintain identical conditions—such as size of chamber, saturation, temperature, duration of development etc.—throughout the experiment.

¹ F. CRAMER, *Papierchromatographie*, Verlag Chemie, G.m.b.H., Weinheim, 1953.

² S. P. DATTA, C. E. DENT AND H. HARRIS, *Science*, 112 (1950) 621.

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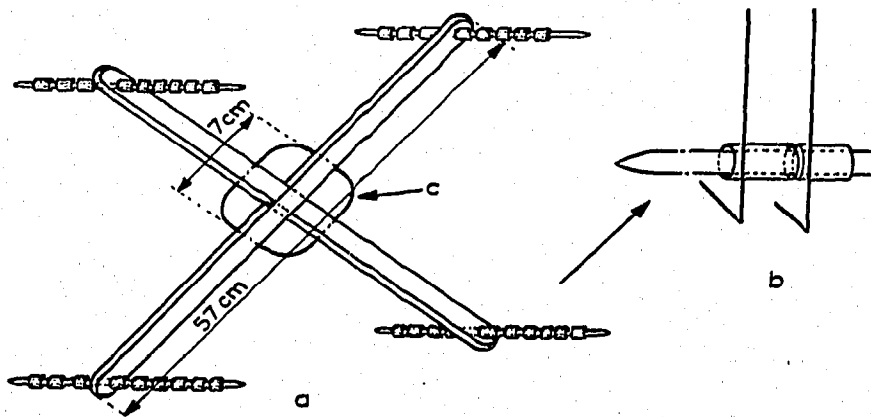


Fig. 1