

Short Communication

Capillary electrophoresis washing technique

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ABSTRACT

A technique is described for washing a capillary electrophoresis column.

This note presents a convenient technique for introducing or changing the solvent in a capillary electrophoresis column in a manually operated system. We find it useful for both the washing solutions and running buffers. The technique is illustrated in Fig. 1. It relies on the use of two easily available components: (1) a steel syringe needle (e.g. 1.5 in., 24 Gauge); and (2) a side-arm vial fitted with an open-top, screw cap containing a septum (e.g. fabricated by attaching a side-arm to a 5.0 ml, screw-thread vial).

The basic idea of the technique is to use a syringe needle to facilitate insertion of the capillary column through the septum in the vial cap. Thus the overall procedure consists of the following steps: (1) insert the syringe needle through the septum; (2) insert the capillary column through the syringe needle until some of it protrudes (the step illustrated in Fig. 1); (3) while holding the capillary column above the syringe needle to fix its position relative to the vial, pull the syringe needle out of the septum, thereby achieving a tight seal of the capillary column

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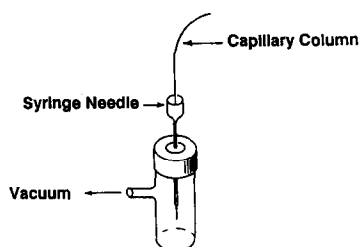


Fig. 1. Device for washing a capillary column.

through the septum (this step may sound awkward but is easily accomplished without breaking the capillary column); and (4) conduct the washing by using a low vacuum to pull solvent through the capillary from the other end.

This technique should be useful not only for the routine solvents that are frequently employed in capillary electrophoresis, but also for the more caustic solvents that are sometimes used. Other techniques for capillary washing have also been presented (e.g. ref. 1).

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REFERENCE

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