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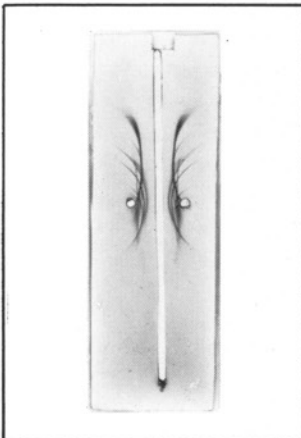
# THE JOURNAL OF IMMUNOLOGY

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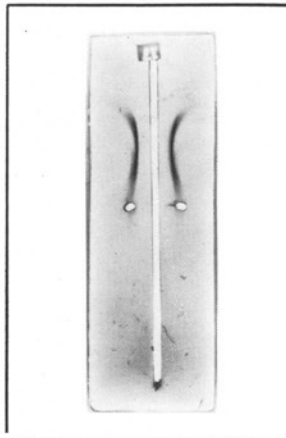
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# produce pure immunoglobulin in quantity with forced-flow electrophoresis

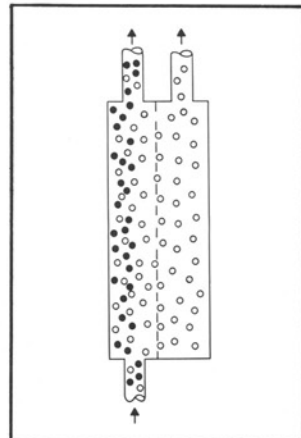
The revolutionary new technique of Forced-Flow Electrophoresis\* is now being used in a growing number of clinical and investigative laboratories for the large-scale production of high-purity antilymphocytic gamma globulin for transplant therapy, and for producing other pure serum fractions, both *in vitro* and *in vivo*.



Human Serum,  
alcohol precipitation cut



Human Serum,  
Forced-Flow Electrophoresis cut



Principle of Operation

In Forced-Flow Electrophoresis (see above) two cell compartments are divided by a filter membrane which acts only as a convection barrier. Electrically charged components (●●●●●) migrate electrophoretically toward the left; uncharged components (○○○○○) are carried to the right by slow liquid flow and pass through the filter barrier to the right-hand compartment and out to collection point. Circulation of liquid through left-hand compartment and heat exchanger maintains safe temperatures throughout the system.

Proper pH adjustment allows cut-out of any component whose isoelectric point differs from that of other components in the starting mixture. Many cells can be assembled in series/parallel to provide large capacity. Modular equipment packages are available to meet your needs, with capacity ranging from 100 ml to hundreds of liters per batch.

Some other applications of Forced-Flow Electrophoresis are separating

- salts from protein • protein from protein • protein from carbohydrate • salts from carbohydrate
- virus from bacteria • protein from bacteria • toxins from bacteria
- enzyme from clay • bacteria from water

And the same equipment can be used for rapid but gentle concentration of dilute protein solutions.

If your work calls for the separation of complex protein mixtures—or any of the above applications—you should investigate Forced-Flow Electrophoresis. Write or call now for further information.

\*U.S. Patent 3,079,318

