

- [54] **AUTOMATED DIRECT SERUM RADIOIMMUNOASSAY**
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- [21] Appl. No.: **774,390**
- [22] Filed: **Mar. 4, 1977**
- [51] Int. Cl.² **A61K 43/00; G01N 33/16; G01N 23/00**
- [52] U.S. Cl. **424/1; 23/230 B; 23/253 R; 424/12**
- [58] Field of Search **23/253 C, 230 B; 424/1, 424/12**

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[57] **ABSTRACT**

Automated radioimmunoassay directly from serum, for those antigens present in serum in relatively small amounts, is accomplished by use of an immobilized immunoabsorbent having an excess of antibodies, specific to the antigen, covalently bonded to a particulate substrate. The serum is diluted and preincubated in the presence of a radioactive labelled antigen and an antibody specific to the antigen. The preincubated mixture is flowed through the immobilized immunoabsorbent and the labelled and unlabelled antigen not bound to the antibody in preincubation are bound to the immobilized immunoabsorbent while the labelled and unlabelled antigen bound to the antibody during preincubation flow through the immunoabsorbent. An eluting solution is flowed through the immunoabsorbent to release the antigens bound thereto for reuse of the immunoabsorbent. By counting the radioactivity of one or both the fractions which flow through the immunoabsorbent or which is released therefrom, the quantity of a specific antigen in the serum may be assayed.

10 Claims, No Drawings