

appropriate number.) The lanthanides were less adsorbed than curium and were readily separated from the transcurium elements. Comparison of Figs. 6a and 6b shows that the elution order of the actinides from Dowex 1 anion resin columns is the reverse of their elution order from Dowex 50 cation resin columns. The only exception to this occurs in the case of americium and curium. Separate experiments have shown that americium precedes curium in elution from a Dowex 1 anion resin column, which is the same as their elution order from a Dowex 50 cation resin column.

In both types of columns the peaks for elements 98 and 99 fall so close together that it is not possible to draw any conclusions as to which precedes the other.

The peculiar shape of the curve for element 100 in Fig. 6b is probably accounted for by the poor counting statistics - the amount of the element available at the time was very small.

Experimental

The anion resin used for all experiments reported here was Dowex 1, 8% cross linked. The preparation of the resin and the preparation and operation of the column followed the methods described in the previous section. Column dimensions of 5 cm. length and 3 mm. diameter were chosen for convenience. Flow rates less than about $0.15 \text{ ml./cm.}^2/\text{min.}$ seemed to be necessary in order to obtain satisfactory separations. (This rate corresponded to approximately one drop per three minutes from the standard column above.) Some separations were made using 20% alcohol saturated with hydrogen chloride gas, under which conditions the elution of