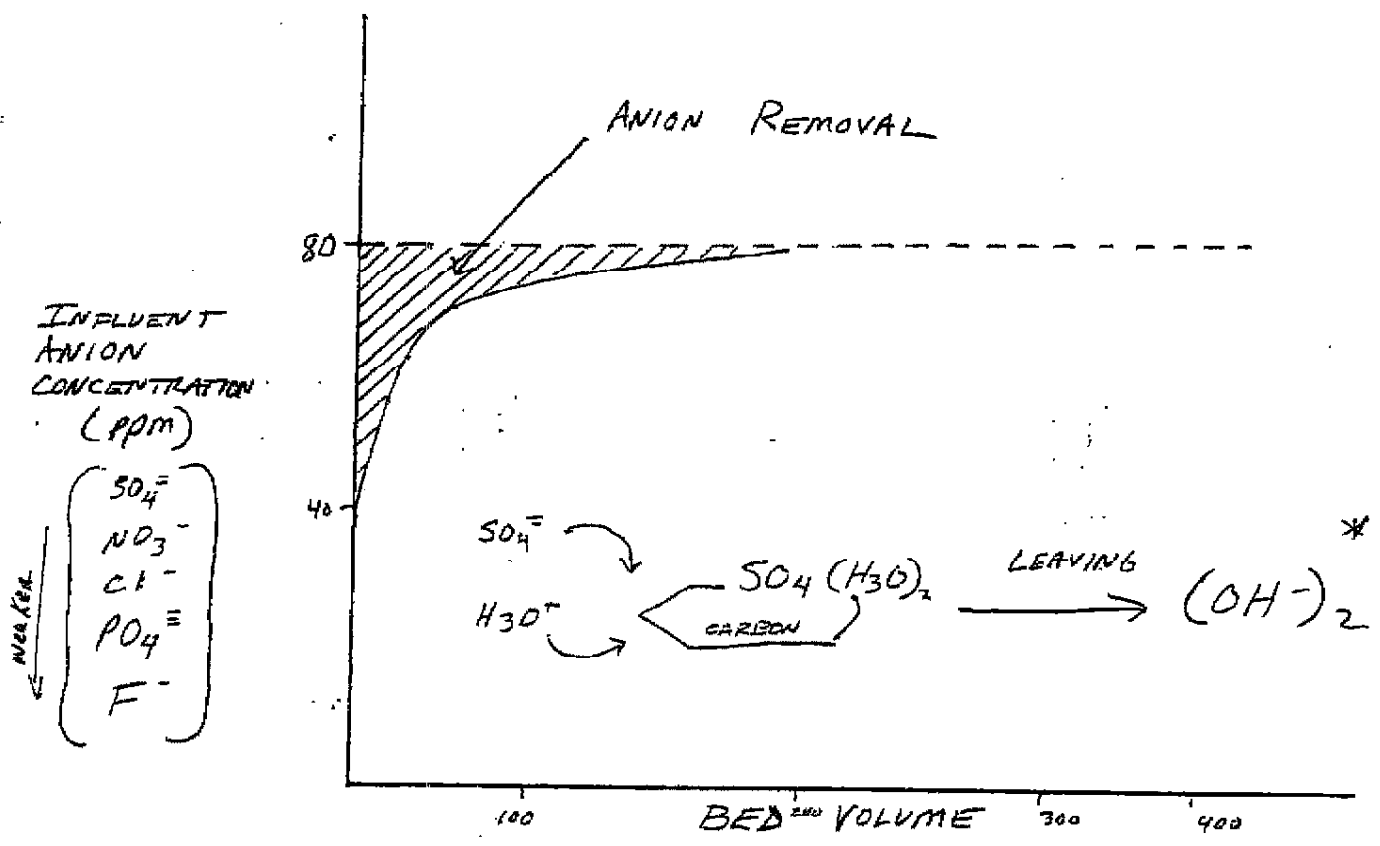


FIGURE 2.

ION EXCHANGE MECHANISM



* $(OH^-)_2$ REMAINS IN THE EFFLUENT AS A TITRATED BASE; CAUSES AN INCREASE IN ALKALINITY; INCREASE IN PH.

ANION REMOVAL IS THEREFORE CAUSED BY A 3-WAY INTERACTION BETWEEN:

- 1) NATURALLY OCCURRING ANIONS IN WATER
- 2) CATIONS IN WATER (H_3O^+ and Ca^+)
- 3) SURFACE GROUPS ON CARBON