



**Figure 9.4.** Demonstration of the zero-order dissolution rate of feldspar and aluminum oxide with respect to the solute concentrations of  $\text{H}_4\text{SiO}_4$  and  $\text{Al}^{3+}$ . (A) The increase in the concentration of silicic acid in solution during the dissolution of Amelia Courthouse Albite (sodium feldspar) (Holdren and Berner, 1970). (B) The increase in dissolved aluminum as a function of time in the presence of  $\delta\text{Al}_2\text{O}_3$  ( $2.2 \text{ g l}^{-1}$   $\text{Al}_2\text{O}_3$  with a surface area of  $113 \text{ m}^2 \text{ g}^{-1}$ ) (Furrer and Stumm, 1986).