CHANGES WITH TIME REDOX POTENTIAL, PH AND CHEMICAL CONSTITUENTS IN SUSPENSION OF ACID SULPHATE SOILS OF THAILAND

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ABSTRACT

Four acid sulfate soils from Thailand, namely Rangsit Very Acid (Rsa), Rangsit (Rs), Mahaphot (Ma), and Bang Pakong (Bg) were used for kinetic studies on redox potential, pH, and chemical constituents in stirred soil suspensions. Upon reduction of the soils, the Eh in the Rs soil decreased most rapidly during the first week of reduction. However, the Eh in the Ma soil was the lowest after one week of reduction. The Bg soil, even extremely low in its initial pH (2.9), reduced more intensely as compared to the Rsa soil (pH 3.9) which was low in active iron. Kinetics of pH in the four soils were similar in patterns to that of Eh's but in reverse direction. In addition to Eh and pH kinetics, the issues in this paper included the kinetics of soluble Fe, Mn, Al, S and P when the systems proceeded from oxidized to reduced and vice versa.