

MINERALOGICAL AND CHEMICAL CHARACTERISTICS OF NIMONE

SERIES OF AHMA DNAGAR DISTRICT MAHARASHTRA

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ABSTRACT

The mineralogical and chemical properties of a profile in Nimone series of Ahmadnagar district in Maharashtra was studied. Soil reaction was strongly alkaline (pH 8.4 to 8.5) and electrical conductivity ranged from 0.10 to 0.53 dSm⁻¹. The organic carbon content was low to moderate and it decreased with depth whereas calcium carbonate increased with depth. Among the exchangeable cations, calcium is the dominant one followed by magnesium, sodium and potassium with increase in ESP with depth. The X-ray diffraction analysis showed that the fine clay fractions are mostly composed of smectite with small amounts of vermiculite, chlorite, and feldspar whereas mica and kaoline content in fine clays are in traces.

KEYWORDS: Chemical, Mineralogical, Smectite