A COMPARATIVE STUDY OF ALUMINOUS LATERITIC SOILS OF SRI LANKA WITH BAUXITES FROM THE TYPE AREA OF LE BAUX, FRANCE.

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Lateritic soils occur extensively in the lowlands (0 to 270m above MSL) of the wet zone of Sri Lanka whereas they are found as localized outcrops in the uplands (270 to 1060m above MSL) and highlands (910 to 2430m above MSL). The maximum mean annual rain-fall in these areas could reach 3000mm and temperatures range from 5 to 35 degrees centigrade. For the purpose of this study, samples were collected from the less dense alluminium-rich and iron-poor middle layers of some selected lateritic profiles of Kalutara, Matugama, Kandy Balangoda and Welimada in the different morphological regions of Sri Lanka.

Differential Thermal Analysis (DTA) and X-ray diffractometry (XRD) studies of the samples have shown that gibbsite and kaolinite are found in the nodular portions. In the bauxite samples from the type area of Le Baux in Southern France where temperatures could be as high as 40 degrees Centigrade during summer. Gibbsite occurs dominantly with bohemite in the nodular portions. Further detailed studies could well indicate possible occurrences of good grade bauxites with dominant gibbsite in Sri Lanka.