1. Record Nr. UNINA9910366631403321 Autore **Ghosh Sandipan** Titolo Laterites of the Bengal Basin: Characterization, Geochronology and Evolution / / by Sandipan Ghosh, Sanat Kumar Guchhait Pubbl/distr/stampa Cham: .: Springer International Publishing: .: Imprint: Springer. . 2020 **ISBN** 3-030-22937-8 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XV, 130 p. 56 illus., 45 illus. in color.) Collana SpringerBriefs in Geography, , 2211-4173 551.41 Disciplina Soggetti Geomorphology Sedimentology Paleoecology Geology Soil science Soil Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1. Introduction to Laterite Study -- Chapter 2. Literature Nota di contenuto Review and Research Methodology -- Chapter 3. Geographical Setting of Study Area -- Chapter 4. Characterization of Primary Laterite Profiles -- Chapter 5. Characterization of Secondary Laterite Profiles -- Chapter 6. Geo-chemical Properties and Lateritization Processes -- Chapter 7. Geochronology of Laterites -- Chapter 8. Palaeogeographic Significance of Laterites -- Chapter 9. Laterite and Society -- Chapter 10. Conclusion. . This Brief analyses and discusses the laterites in the Bengal Basin. The Sommario/riassunto book highlights: (1) the definition, identification and classification of ferruginous materials, (2) the mode of laterite formation and its other horizons. (3) processes and theories of lateritisation. (4) determination of laterite ages, (5) recognition of palaeogeomorphic and palaeoclimatic significance and (6) geo-chronology and reconstruction of former lateritized landscapes. The chapters cover the tectonoclimatic evolution of north-south laterite profiles of the north-western Bengal Basin on the Rajmahal Basalt Traps, Archean Granite-Gneiss,

Gondwana Sandstones, Palaeogene Gravels and Older Palaeo-Deltaic Alluvium. The book uses advanced field-based studies, quantitative analysis and thematic mapping to cover various areas of palaeogeography and regolith geology of the Bengal Basin in connection with laterite genesis, palaeoweathering, tectonic geomorphology, Quaternary geomorphology and pedogeomorphology. It introduces laterites as a potential stratigraphic marker in Indian geology by explaining their palaeogeomorphic and palaeoclimatic significance. This Brief is a comprehensive resource to researchers, students and academicians of geography, geomorphology and geology working on laterites.