Record Nr. UNINA9910299445703321 Autore Wu Meiling Titolo Ages, Geochemistry and Metamorphism of Neoarchean Basement in Shandong Province [[electronic resource]]: Implications for the Evolution of the North China Craton / / by Meiling Wu Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2015 3-662-45343-6 ISBN Edizione [1st ed. 2015.] 1 online resource (243 p.) Descrizione fisica Collana Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053 Disciplina 551.13 Soggetti Geology Geochemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "Doctoral Thesis accepted by The University of Hong Kong, China." Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction -- Geological background -- Tectonic affinity and reworking of the Jiaodong Terrane -- Zircon U-Pb ages and Hf isotopes of major lithologies from the Jiaodong Terrane -- Zircon U-Pb ages and Hf isotopes of major lithologies from the Yishui Terrane --Petrogenesis of Neoarchean basement in Shandong Province --Metamorphism of Neoarchean basement in Shandong Province --Discussion and tectonic implications. Sommario/riassunto Focusing on issues of when and how Archean crust in the craton was formed, this PhD thesis book presents major research outcomes of field based metamorphic, geochemical and geochronological investigations on Meso-Neoarchean basement rocks from Shandong Province in the Eastern Block of the North China Craton. Based on major findings and new data, the author proposes that the formation and evolution of Archean crust was governed by mantle plumes, not by plate tectonics. As one of the oldest cratonic blocks in the world containing rocks as old as 3.85 billion years, the formation and evolution of North China Craton is still controversial. Therefore this book will be of value to

anyone interested in the evolution of cratonic blocks and Precambrian

geology.