Record Nr. UNINA9910457864603321 Cosmochemistry: the melting pot of the elements: XIII Canary Islands **Titolo** Winter School of Astrophysics, Puerto de la Cruz, Tenerife, Spain, November 19-30, 2001 / / edited by C. Esteban [and others] [[electronic resource]] Pubbl/distr/stampa Cambridge:,: Cambridge University Press,, 2004 **ISBN** 1-107-14730-1 1-280-45794-5 9786610457946 0-511-18564-2 0-511-18481-6 0-511-18746-7 0-511-31357-8 0-511-53621-6 0-511-18653-3 Descrizione fisica 1 online resource (xiii, 298 pages) : digital, PDF file(s) Collana Cambridge contemporary astrophysics Disciplina 523/.02 Soggetti Cosmochemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references. Primordial alchemy: from the big bang to the present / G. Steigman. --Nota di contenuto Stellar nucleosynthesis / N. Langer. -- Observational aspects of stellar nucleosynthesis / D.L. Lambert. -- Abundance determinations in HII regions and planetary nebulae / G. Stasinska. -- Element abundances in nearby galaxies / D.R. Garnett. -- Chemical evolution of galaxies and intracluster medium / F. Matteucci. -- Element abundances through the cosmic ages / M. Pettini. Sommario/riassunto The chemical composition of the Universe has evolved over billions of years. A host of astrophysical processes and observations must be understood in order to explain why celestial objects have the chemical compositions observed. Originally published in 2004, this book

contains the lectures delivered at the XIII Canary Islands Winter School

of Astrophysics, which was dedicated to reviewing current knowledge about the origin and evolution of the chemical elements in the Universe. Written by seven prestigious astrophysics researchers, it covers cosmological and stellar nucleosynthesis, abundance determinations in stars and ionised nebulae, chemical composition of nearby and distant galaxies, and models of chemical evolution of galaxies and intracluster medium. This is a timely review of developments in cosmochemistry over the last decade.