Record Nr. UNINA9910789349203321

Titolo Cosmic evolution [[electronic resource]]: on the occasion of the 60th

birthdays of Jean Audouze and James W. Truran: Institut

d'astrophysique de Paris, 13-17 November 2000 / / editors, Elisabeth

Vangioni-Flam, Roger Ferlet, Martin Lemoine

Pubbl/distr/stampa Singapore;; River Edge, N.J.,: World Scientific, c2001

ISBN 1-283-85065-6

981-281-083-8

Descrizione fisica 1 online resource (372 p.)

Altri autori (Persone) AudouzeJean

FerletRoger

LemoineM <1968-> (Martin)

TruranJames W

Vangioni-FlamE (Elisabeth)

Disciplina 523.12

Soggetti Cosmic abundances

Cosmochemistry Light elements

Nuclear astrophysics Nucleosynthesis

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references.

Nota di contenuto CONTENTS: PREFACE: FORTY YEARS OF NUCLEAR ASTROPHYSICS OF

LIGHT ELEMENTS; 1 The origin of lithium, beryllium, and boron; 2 The origin of deuterium and helium-3.; 3 Galactic evolution models; Part 1. Cosmology and Big-bangNucleosynthesis; HIGH-ENERGY GAMMA-RAYS AS AN INDIRECT SIGNATURE OF SUPERSYMMETRIC DARK MATTER; 1 A

few introductory remarks.; 2 High-energy photons.; 3 Discussion and future prospects.; References; EXTRACTION OF COSMOLOGICAL

PARAMETERS FROM COSMIC BACKGROUND PRIMARY AND SECONDARY

ANISOTROPIES; 1 A Survey of Cosmological Parameters; 1.1 Single

Fluid, Homogeneous Cosmologies

1.2 CMB and the Hubble Constant1.3 CMB and Omega; References; GALACTIC WINDS AT HIGH REDSHIFT AND SMALLS CALE CMB

ANISOTROPY: 1 Introduction: 2 CMB distortion from winds: 2.1 Modelling the ensemble of galactic outflows; 2.2 Distortion of the CMB background; 3 Results and discussions; Acknowledgments; References; DETERMINATION OF THE COSMOLOGICAL PARAMETERS USING THE CMB RADIATION; 1 The H0 - to and H0 - diagrams; References; BIG BANG NUCLEOSYNTHESIS; 1 Introduction; 2 Data; 2.1 4He; 2.2 7Li; 3 Concordance; Acknowledgments; References; BIG-BANG NUCLEOSYNTHESIS WITH THE NACRE COMPILATION References ISSUES IN NON-STANDARD BIG BANG NUCLEOSYNTHESIS: Acknowledgments; References; LEPTON ASYMMETRIC UNIVERSE: NEW LIMITS FROM BBN AND THE CMB; Part 2. Origin and Evolution of the Light Elements; D / H MEASUREMENTS; 1 Introduction; 2 Interstellar observations; 3 The nearby ISM; 4 The FUSE observatory; 5 Conclusion; Acknowledgments; References; A NEW MEASUREMENT OF THE PRIMORDIAL D /H RATIOIN THE INTERGALACTIC MEDIUM: HS 0105+1619; 1 Introduction; 2 HS 0105+1619; 2.1 The Hydrogen; 2.2 The Deuterium; 2.3 Metal Lines; 3 New Values for D/H & Cosmological Parameters: Acknowledgments References AD /H measurement in the damped Lya system at zabs = 3.025 towards QSO 0347-3819; 1 Introduction; References; DEUTERIUM NEAR AND FAR IN THE GALAXY; THE OBSERVATIONAL DETERMINATION OF THE PRIMORDIAL HELIUM ABUNDANCE: A Y2K STATUS REPORT; 1 Background; 2 Recent Progress; 3 Current Concerns; 4 Forward Look; Acknowledgments; References; THE ORIGIN AND EVOLUTION OF 3-HELIUM: 1 Prolog: 2 Status of the Observational Program; 3 Summary; Acknowledgments; References; GALACTIC EVOLUTION OF D AND 3HE; 1 D and 3He one year later; Acknowledgements; References; THE ENIGMA OF 3HE; References LI /H MEASUREMENTS IN STARS1 Lithium in very young stars; 2 Lithium in evolved stars; 3 Lithium in halo stars; 4 The connection with cosmology: abundance of Li in the ISM at the birth of the star; 5 conclusion; References; ASTROPHYSICAL RELEVANCE OF HOT BOTTOMBURNING IN AGB; 1 Introduction; 2 Our recent studies on HBB - AGB stars: 3 ON cycling in HBB and the self-pollution model for GCs: References; LITHIUM ISOTOPE RATIOS IN METAL-POOR HALO STARS: 1 Introduction; 2 Observations and Analysis; 3 Preliminary Results; References: LITHIUM ALONG THE AGB OF LMC CLUSTERS: 1 The AGB stars of NGC 1866 References

Sommario/riassunto

This is the proceedings of an international conference on the evolution of matter in the Universe, with emphasis on the following topics: big bang nucleosynthesis, cosmic ray nucleosynthesis, stellar nucleosynthesis, galactic chemical and dynamical evolution, and evolution with redshift and cosmic chemical evolution in general.