

Reinhard E. Schielicke (Ed.)

Reviews in Modern Astronomy 16

The Cosmic Circuit of Matter



WILEY-VCH GmbH & Co.

Contents

Karl Schwarzschild Lecture:

The Behavior of Stars Observed by Infrared Interferometry
By Charles H. Townes (With 17 Figures) 1

Ludwig Biermann Award Lecture:

Star Formation in Turbulent Interstellar Gas
By Ralf S. Klessen (With 11 Figures) 23

Dynamics of Small Scale Motions in the Solar Photosphere

By Arnold Hanslmeier (With 4 Figures) 55

The Interstellar Medium and Star Formation: The Impact of Massive Stars

By José Franco, Stan Kurtz, and Guillermo García-Segura (With 12 Figures) 85

Circuit of Dust in Substellar Objects

By Christiane Helling (With 10 Figures) 115

Hot Stars: Old-Fashioned or Trendy?

By A. W. A. Paudlach (With 24 Figures) 133

Gas and Dust Mass Loss of O-rich AGB-stars

By Franz Kerschbaum, Hans Olofsson, Thomas Posch,
David González Delgado, Per Bergman, Harald Mutschke,
Cornelia Jäger, Johann Dorschner, and Fredrik Schöier (With 9 Figures) 171

Finding the Most Metal-poor Stars of the Galactic Halo

with the Hamburg/ESO Objective-prism Survey
By Norbert Christlieb (With 6 Figures) 191

A Tale of Bars and Starbursts:

Dense Gas in the Central Regions of Galaxies
By Susanne Hüttemeister (With 8 Figures) 207

Tip-AGB Mass-Loss on the Galactic Scale

By Klaus-Peter Schröder (With 6 Figures) 227

The Dusty Sight of Galaxies:

ISOPHOT Surveys of Normal Galaxies, ULIRGS, and Quasars
By Ulrich Klaas (With 13 Figures) 243

Abundance Evolution with Cosmic Time

By James W. Truran (With 7 Figures) 261

Matter and Energy in Clusters of Galaxies as Probes for Galaxy and Large-Scale Structure Formation in the Universe By Hans Böhringer (With 24 Figures)	275
Index of Contributors	303
General Table of Contents	305
General Index of Contributors	317