

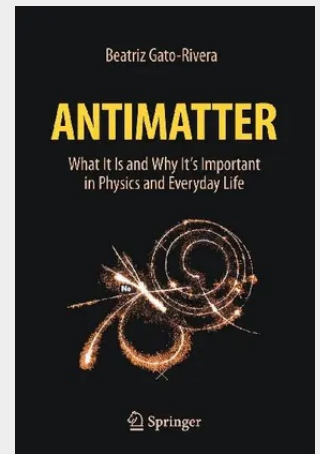
Antimatter

What It Is and Why It's Important in Physics and Everyday Life

Antimatter is one of the most fascinating aspects of Particle Physics, and matter-antimatter annihilation the most energetic process in the universe. If they existed, everyday objects made of antimatter would look exactly like those made of ordinary matter, as would antimatter stars. We live surrounded by antimatter, since showers of matter and antimatter particles fall incessantly on the Earth's surface, some of them penetrating our buildings. Furthermore, many things around us - bananas, for example - actually emit antielectrons.

This book first introduces the essentials of particle physics and the nature of particles and antiparticles. It describes the discovery of antimatter particles and explains how they are produced, where they are found, and how antistars could be spotted; it also introduces cosmic rays, particle accelerators, dark matter, dark energy and nuclear reactions in stars. The enigma of the matter-antimatter asymmetry in the Universe is discussed as are the very real applications of antimatter in hospitals, in industry and in cutting-edge research and technology. Non-specialist readers will find here a wealth of fascinating and accessible information to deepen their appreciation of antimatter.

Antimatter is one of the most fascinating aspects of Particle Physics, and matter-antimatter annihilation the most energetic process in the universe. If they existed, everyday objects made of antimatter would look exactly like those made of ordinary matter, as would antimatter stars. We live surrounded by antimatter, since showers of matter and antimatter particles fall incessantly on the Earth's surface, some of them penetrating our buildings. Furthermore, many things around us - bananas, for example - actually emit antielectrons. This book first introduces the essentials of particle physics and the nature of particles and antiparticles. It describes the discovery of antimatter particles and explains how they are produced, where they are found, and how antistars could be spotted; it also introduces cosmic rays, particle accelerators, dark matter, dark energy and nuclear reactions in stars. The enigma of the matter-antimatter asymmetry in the Universe is discussed as are the very real applications of antimatter in hospitals, in industry and in cutting-edge research and technology. Non-specialist readers will find here a wealth of fascinating and accessible information to deepen their appreciation of antimatter. ¿



42,79 €

39,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783030677909

Medium: Buch

ISBN: 978-3-030-67790-9

Verlag: Springer

Erscheinungstermin: 11.04.2021

Sprache(n): Englisch

Auflage: 1. Auflage 2021

Produktform: Kartoniert

Gewicht: 476 g

Seiten: 296

Format (B x H): 155 x 235 mm

