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Nota di contenuto	Introduction -- In the Beginning -- Stellar Evolution: The Life Cycle of Stars -- From Dust to Us: Our Cosmic Connection -- Final Thoughts.
Sommario/riassunto	This concise and accessible book explains one of the most profound and inspiring discoveries ever made, namely, the fact that we ourselves—and all we see around us—are a natural product of the workings and wonders of the Universe, tied directly to distant events spread across space and time reaching back to the beginning, back to the Big Bang, and continuing through the birth and death of successive generations of stars. Modern science has shown that, in a very real and profound way, we are intimately connected to the Cosmos: we are, as Joni Mitchell tells us in her song Woodstock, stardust—in a very real sense, children of the stars—star folk made from chemical elements (“starstuff”) cooked by nuclear reactions in stellar furnaces throughout the various stages of stellar evolution. Life as we know it is an inevitable consequence of the life cycle of the stars. Our story begins at the beginning with the Big Bang some 13.8 billion years ago when, during the first three minutes in the history of the Universe, all of the

hydrogen and most of the helium, by far the most abundant elements in the Universe, formed from a cooling plasma of protons, neutrons, and electrons. We then trace the life cycles of the stars from birth to death highlighting the synthesis in the stars of the heavier chemical elements so essential to life, along the way touching on many of the hot topics in astrophysics today including exoplanets, supernovae, pulsars, black holes, white dwarfs, and, since these conditions are found throughout the Galaxy, life in the Universe. The reader, awed by the power and beauty of this cosmic perspective, will leave with a better understanding and appreciation of our true cosmic connection. Surprisingly, despite its significance, this fascinating story of our connection to the stars has largely gone unnoticed outside a small circle of scientists. Understanding that the stuff we are made of traces its origin to nuclear processes accompanying the Big Bang, and thereafter to billions of years of the birth and death of generation after generation of stars, is an important and beautiful story that deserves more attention. Intended for a broad audience, this book provides inspiring reading for all students and aficionados of science.
