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Sommario/riassunto	This book highlights the advances in the technology , instrumentation , method developments , and applications of Accelerator Mass Spectrometry (AMS). It systematically introduces the principles and structure of AMS . The authors put emphasis on the new techniques and measurement methods of AMS , with detailed descriptions of its applications in the fields of nuclear science , archaeology , geoscience , biomedicine , and environmental science . The advances made by global researchers are mainly in three directions: (1) the miniaturization

of AMS instruments; (2) inventions based on new technology and new theories , such as superionization AMS and MS; (3) new methods and applications , including measurements of noble gases 85Kr,133Xe, and 39Ar using superionization AMS , dating of human history with 41Ca, increasing 14C dating from 40 ky to more than 60 ky , and measurements with such important dating nuclides as 40K-40Ca-40Ar, 87Ru-87Sr, and 187Re-187Os in geology and archeology. The book is not only a good reference for technicians of MS and accelerators but also a helpful information source on how to use AMS for researchers and graduate students in their research and work in geology, archeology, environmental science, nuclear science, materials science , and biomedicine.