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Magnets: Dipole, Quadrupole and Sextupole C. S. Hwang; Emittance and Cooling Lee C. Teng; RF Systems for Light Source Storage Rings Z. T. Zhao; Vacuum System J. R. Chen; RFQ Design and Performance Jiaxun Fang; Insertion Devices: Wigglers and Undulators C. S. Hwang; Medical and Industrial Applications of Electron Accelerators Yuzheng Lin

High Gain Free Electron Lasers Li Hua Yu Proton Therapy: Accelerator Aspects and Procedures Hans- Udo Klein, Detlef Krischel; Introduction to Synchrotron Radiation Applications H. O. Mosel, O. Wilhelm, P. Yang

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#### Sommario/riassunto

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Originally invented for generating the first artificial nuclear reactions, particle accelerators have undergone, during the past 80 years, a fascinating development that is an impressive example of the inventiveness and perseverance of scientists and engineers. Since the early 1980's, accelerator science and technology has been booming. Today, accelerators are the prime tool for high energy physics to probe the structure of matter to an unknown depth. They are also, as synchrotron radiation sources, the most versatile tool for characterizing materials and processes and for producing micro- and

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