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Title: Accelerators and Related R & D Activities in Thailand
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Abstract: The production and the utilization of four fundamental probes, namely, electron, ion, neutron and photon probes, have played a vital role in the research and development in modern science and technology. These probes are generated by various types of particle accelerators. In Thailand, beams of charged particles are accelerated to energies ranging from keV to GeV. Low-energy (<200 keV) heavy-ion implanters are applied to research in material surface modification, biology and nanotechnology whereas the MeV tandem accelerator is employed in material surface analysis and lithography. Relativistic femtosecond electron beams are used to produce transition radiation with wavelengths in the tera-Hertz (THz) region. Synchrotron radiation is generated from a 1.2-GeV electron synchrotron coupled to a storage ring. The details of present and future accelerator R & D activities are presented and discussed.