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标题: Experimental Observation of Energy Modulation in Electron Beams Passing through Terahertz Dielectric Wakefield Structures
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摘要: We report the observation of a strong wakefield induced energy modulation in an energy-chirped electron bunch passing through a dielectric-lined waveguide. This modulation can be effectively converted into a spatial modulation forming microbunches with a periodicity of 0.5-1 ps and, hence, capable of driving coherent terahertz radiation. The experimental results agree well with theoretical predictions.
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