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Abstract:Terahertz (THz) technique has attracted considerable interest due to its broad application prospects. THz source is a crucial part of THz science and technology. Optical Cherenkov radiation in electro-optic crystals is a promising method of THz generation, because phase-matching is automatically satisfied. In this paper, we introduced two types of THz source based on optical Cherenkov radiation: both broadband and tunable monochromatic. The mechanism of radiation was analyzed and recent development was reviewed in detail. The future of THz source based on optical Cherenkov radiation was also forecasted.
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