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摘要: Plasmonics, which deals with the unique optical properties of metallic and semiconductor nanostructure, is one of the most fascinating and fast-moving areas of photonics. Its board scale research in the visible, infrared, terahertz and microwave frequencies has driven by the advances in the micro/nano fabrication and the computational simulation technologies, as well as the potential applications in areas of high sensitivity bio-chemical sensing, sub-wavelength light-guiding, near-field microcopy, and nanolithography. Especially, the development of the artificial metamaterial has laid the good foundation for the material and devices in the terahertz frequency range, which is barely responded by the nature materials, and furthermore, has promoted the progress of terahertz surface plasmonics. In this paper the generation, propagation, new applications, and perspective of terahetz surface plamonics are reviewed and discussed.
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