

Supplementary Information

Temperature tunability of surface plasmon enhanced Smith-Purcell terahertz radiation for semiconductor-based grating

Bo Han Cheng, Yu-Siou Ye, Yung-Chiang Lan, and Din Ping Tsai

1. Figure S1

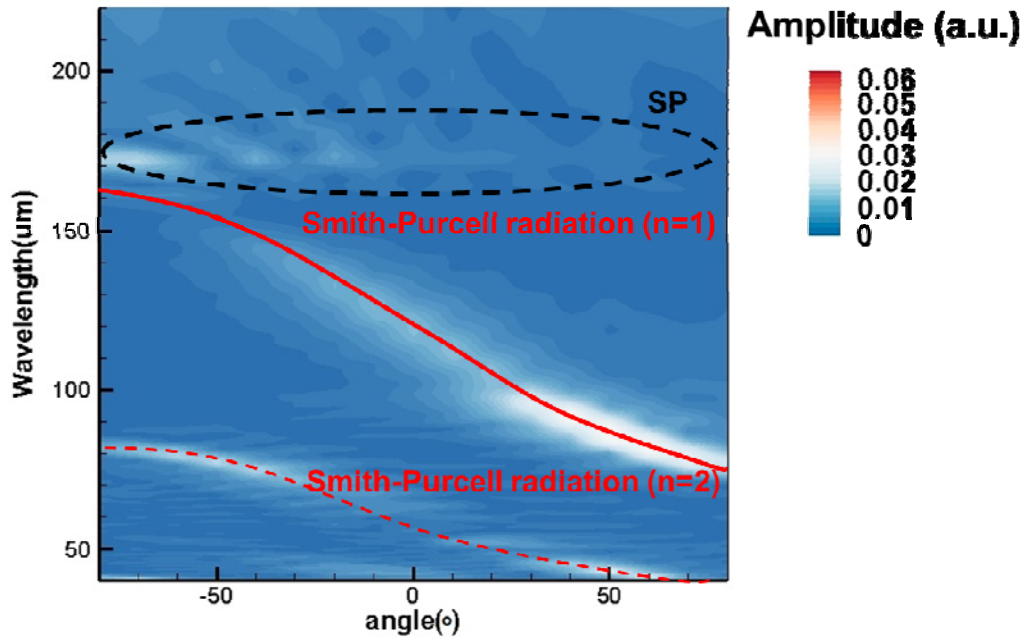


Fig. S1 Simulated contours of Fourier spectra of Hz fields versus emission wavelength and angle at the observation points with $T = 270$ K ($E = 40$ keV, $a = 22.5$ μm and $h = 22.5$ μm).

2. Figure S2

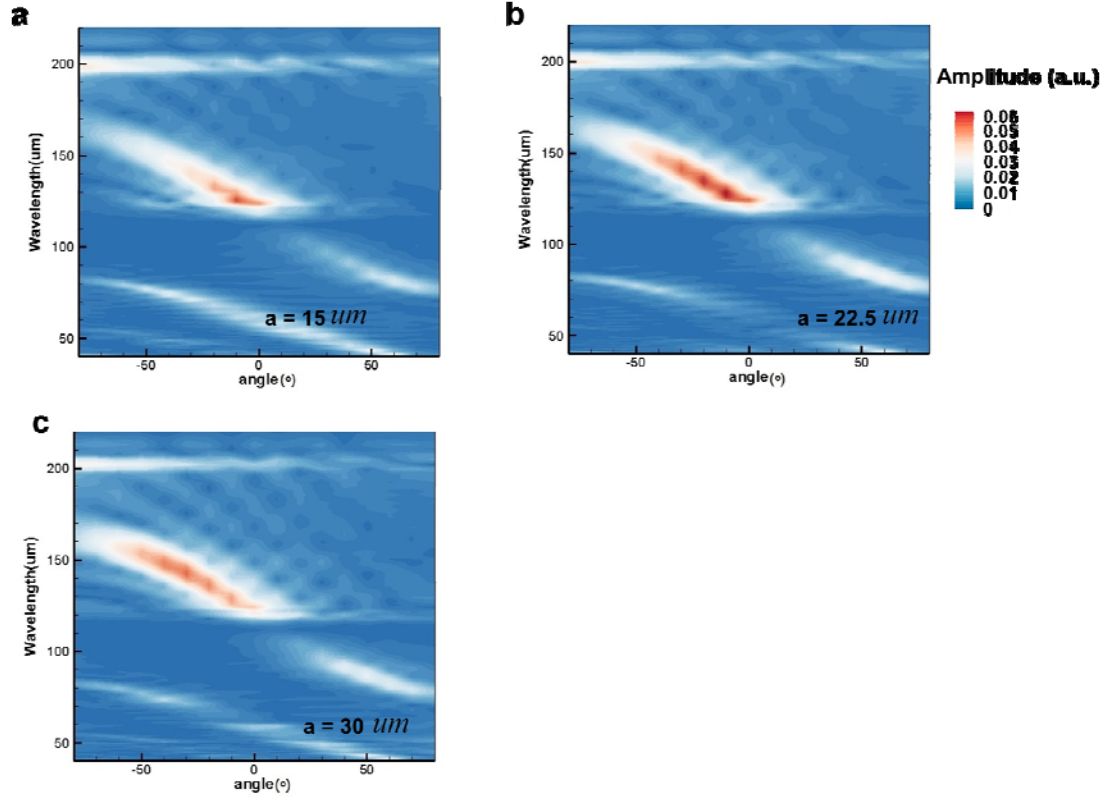


Fig. S2 (a), (b), (c) Simulated contours of Fourier spectra of Hz fields versus emission wavelength and angle at the observation points with groove widths $a = 15$, 22.5 and $30 \mu m$, respectively ($E = 40 \text{ keV}$, $T = 300 \text{ K}$ and $h = 22.5 \mu m$).