

Reflection influence on output frequency spectrum at submillimeter frequency tunable gyrotrons

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=118482&lokasi=lokal>

Abstrak

Influence of output window reflections on oscillatory processes in gyrotrons has been studied. The processes in a gyrotron have been modeled numerically, and enhancement of the spectrum signal in the presence of reflections has been studied. Dependencies of output power versus time and frequency spectrum for different value of reflection coefficient are given. Possibilities of significant increasing of output spectrum are demonstrated experimentally. The results demonstrate significant influence of reflections on operation stability and composition of the output radiation of the gyrotron.