

**MATHEMATICAL MODELING OF NONLINEAR WAVES AND OSCILLATIONS IN
GYROMAGNETIC STRUCTURES BY METHODS OF BIFURCATION THEORY
AN EFFICIENT NONLINEAR FREQUENCY MULTIPLICATION MECHANISM IN
FERRITE LOADED WAVEGUIDE STRUCTURES**

Frequency multiplication in the nonlinear bounded YIG ferrite

in the strip-slot line, depending on the incident wave magnitude $C_{1(1)}^+(\omega_1)$:

1- 4 A/mm; 2 - 6 A/mm; 3 - 8 A/mm; 4 -10 A/mm;

— $\alpha = 1$; - - - $\alpha = 2$;

f = 10 GHz

