

FERROMAGNETIC RESONANCE IN EPITAXIAL
FILMS OF Al-SUBSTITUTED
BARIUM HEXAFERRITE

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S u m m a r y

We present the results of experimental investigations of the ferromagnetic resonance (FMR) in epitaxial films of Al-substituted barium hexaferrite $\text{BaFe}_{12-x}\text{Al}_x\text{O}_{19}$ ($0 \leq x \leq 1.8$) grown on the strontium hexagallate ($\text{SrGa}_{12}\text{O}_{19}$) substrates. The studies were performed on the R1-32 and R1-33 measurement lines using the waveguide method. As a result of the measurements, the following magnetic parameters were determined: a field of magnetocrystalline anisotropy H_a , a ferromagnetic resonance linewidth $2\Delta H$, and a resonance field H_{res} . It has been shown that the substitution level x strongly influences the magnetic parameters of films. The value of the anisotropy field is by about 10 kOe greater than that in the parent (undoped) epitaxial films of barium hexaferrite. The magnetic parameters for the parent and substituted epitaxial films of barium hexaferrite are compared and discussed.