As in the case of magnetics with "easy axis," we construct the Lagrangian of the magnetoelastic system and write the law of energy conservation, which is used to obtain the solution of the Landau–Lifshitz equation. For FEP:

$$\xi = \int d\eta (1-\eta)^{-1} \{(1+\eta)^2 u_3^2 - h_s\kappa_2 + h_s(\kappa_2-\kappa_1)\eta^2] + \sigma(1-\eta^2)\}^{-1/2},$$

$$\eta = \cos\varphi(\xi), \qquad \xi = (x - vt)/\Delta, \qquad u_3^2 = h_s. \tag{10}$$

For AFEP:

$$\xi = \int d\eta \left(1 - \frac{2\alpha'}{\alpha+\alpha'}\eta^2\right)^{1/2} (1-\eta^2)^{-1} \cdot [u_4^2 - 2\tilde{h}_s\kappa_2 + 2\tilde{h}_s(\kappa_2-\kappa_1)\eta^2]^{-1/2},$$

$$u_4^2 = 2(\tilde{\delta} + \tilde{h}_s). \tag{11}$$

Discussion of the Results

The following oscillation types in magnetics take place depending on the value of propagation velocity u of a magnetoelastic wave.

If in FEA the maximum stationary propagation velocity of a magnetic soliton $2u_1$ is greater than the transverse sound velocity u_t, then in the following velocity intervals $0 < u < u_t' = u_t(1 - h_s/u_1^2)^{1/2}$ and $u_t < u < 2u_1' = 2u_1(1 + h_s u_t^2/4u_1^4)^{1/2}$, a magnetoelastic soliton exists, and if u satisfies the conditions $u_t' < u < u_t$ and $u > 2u_1'$, then we get coupled magnetoelastic waves, undamped at the infinity (spin waves). If, on the contrary, $2u_1 < u_t$, then for u, lying in the intervals $0 < u < 2u_1'' = 2u_1(1 - h_s/u_1^2)^{1/2}$ and $u_t < u < u_t'' = u_t(1 + 4h_s/u_t^2)^{1/2}$, one obtains moving soliton, and under assumptions $2u_1'' < u < u_t$ and $u > u_t''$, spin waves.

For any relative values of $2u_2$ and u_t in AFEA if u satisfies $0 < u < 2u_2$, we get a moving soliton, and for $u > 2u_2$, spin waves.

With arbitrary relative values of $2u_3$ (for FEP) or u_4 (for AFEP) and the velocity u_t, we get a moving soliton if $0 < u < u_t'''$ and $u > u_t$, and we have spin waves if $u_t''' < u < u_t$. When FEP is in basic plane, there is no anisotropy and magnetic field $u_t''' = u_t(1 - h_s/u_3^2)^{1/2} = 0$. For AFEP, $u_t''' = u_t \cdot (1 - 2\tilde{h}_s/u_4^2)^{1/2}$. Note that from our results we cannot obtain the limitation of the propagation velocity value of a stationary moving magnetoelastic soliton, due to the assumption that in the cases considered, M and L lie in the "easy plane."

Thus, in the velocity spectrum of magnetoelastic oscillations near the value of transverse sound velocity, an oscillation-type gap exists, changing on its boundaries. The width of the gap is determined by the magnetoelastic interaction parameter. Oscillation character is also changed when u approaches the maximum velocity value of a stationary moving magnetoelastic soliton, but is unchanged in the vicinity of longitudinal sound velocity value.

When the sublattices' magnetic momenta in antiferromagnets remain antiparallel while deviating from the equilibrium directions, the results are analogous to those for ferromagnets.

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Correction to "Effects of the Leakage Flux in the Inhomogeneities of Magnetic Fields in a Sectorial Electromagnet"

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In the above paper[1], the number on the fifth line of the abstract should have been 10^{-4}.

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[1] Y. Ōkuma, *IEEE Trans. Magn.*, vol. MAG-17, no. 5, pp. 1907–1910, Sept. 1981.

Correction to "Magnetostatic Forward Volume Wave Reflective Dot Arrays"

G. VOLLUET

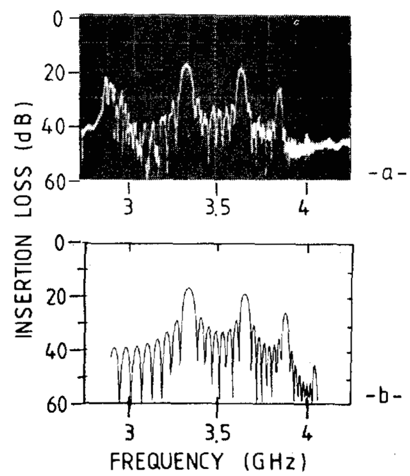

Fig. 2. Comparison of experimental (-a-) and computed (-b-) insertion loss versus frequency of a periodic 8 rows reflective dot array.

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