tension $\mathbf{p}_{\mathbf{q}}^k$ is indicated in reference 6.

According to (1), the absorption curve $A(\omega)$ consists of a series of $n = l, \ldots$ Gaussian lines, shifted by a distance $\Sigma \Delta_{\mathbf{q}} / \omega_{\mathbf{q}}$ from the resonance frequencies $\omega_{\mathbf{q}}$. The width of these lines (at half the intensity) is calculated from the expression $\Delta \nu_{1/2} = 2.35 \Delta_{\mathbf{q}}$. The coefficient $\Delta_{\mathbf{q}}^2$ differs from the corresponding result $\langle (\Delta \nu)^2 \rangle$ of Van Vleck in that $\Delta_{\mathbf{q}}^2$ for the $\mathbf{q}$-0 interaction is twice $\langle (\Delta \nu)^2 \rangle$, and $\Delta_{\mathbf{q}}^2$ depends on the value of the isotropic exchange interactions. Therefore, the acoustic magnetic resonance is a much-promising method of investigation of exchange interactions in crystals.

Furthermore, it follows from our calculations that if $\Delta \nu_{1/2}$ in a crystal is determined by dislocation-type defects, then for $I = \frac{3}{2}$ and $I = \frac{5}{2}$ the ratio $d$ of the ultrasonic resonance width and the magnetic resonance width are respectively $d(\frac{3}{2}) = \sqrt{\frac{3}{2}}$, and $d(\frac{5}{2}) = \sqrt{\frac{15}{2}}$. The experimental values are $d(\frac{3}{2}) = 1.7$ (reference 1) and $d(\frac{5}{2}) > d(\frac{3}{2})$ (reference 2).

We note that in the event of the excitation of free nuclear precession about the direction of $H$ by an ultrasonic moment, the form of the decrease in the nuclear induction signal $G$ with time will be described by the function $G_K(t)$ obtained from $A(\omega)$ by a Fourier transform, with a Gaussian form $G(t)$.

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BETA AND GAMMA SPECTRA OF THE Sb$^{113}$ AND Sb$^{115}$ ISOTOPES

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RECENTLY Selinov and his co-workers$^1$ discovered the new antimony isotopes Sb$^{113}$ and Sb$^{115}$. The isotopes were obtained by the method of absorption of the approximate values of their end-point beta spectra.

The beta and gamma spectra of these isotopes were investigated with a double-lens beta spectrometer. The positron spectrum of Sb$^{113}$ was found to consist of two components with end-point energies of $1.85 \pm 0.02$ and $2.42 \pm 0.02$ Mev. The values of $\log ft$ are 4.4 and 4.7. The end-point energy of the positron spectrum of Sb$^{115}$ is $1.51 \pm 0.02$ Mev, and $\log ft = 4.25$. The shape of the spectrum is resolved. In the conversion-electron spectrum of Sb$^{115}$ a gamma line with an energy of $0.499 \pm 0.002$ Mev was found. The conversion coefficient $\alpha_{\mathbf{q}}$ is 0.00625. The ratio of the conversion coefficients of the K and L shells is about 6.

According to preliminary data, eight gamma lines were observed in the Sb$^{113}$ gamma spectrum, which was investigated with a scintillation spectrometer. The data on the Sb$^{113}$ gamma spectrum are being published in the transactions of the 10th Conference on Nuclear Spectroscopy.

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A ROTATORY MAGNETO-MECHANICAL EFFECT IN A LOW PRESSURE PLASMA

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It has been pointed out in the literature$^4$ that in a low pressure positive column the gas should rotate around the axis of the column if a longitudinal