

# Abstracts

## **Submillimeter Spectroscopy of Weak Antiferromagnets in Magnetic Fields Up to 300 kOe**

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*E.G. Rudashevsky, A.S. Prokhorov and L.V. Velikov. "Submillimeter Spectroscopy of Weak Antiferromagnets in Magnetic Fields Up to 300 kOe." 1974 Transactions on Microwave Theory and Techniques 22.12 (Dec. 1974, Part I [T-MTT] (Special Issue on the Proceedings of the First International Conference on Submillimeter Waves and Their Applications)): 1064-1069.*

The dynamic properties of antiferromagnets with Dzyaloshinsky interaction were investigated at wavelengths 0.3-14 mm, in magnetic fields up to 300 kOe and temperature 4.2-400 K. The problems of impurities, field induced phase transitions, types of spin oscillation, etc., for different types of antiferromagnets with Dzyaloshinsky interaction are discussed. Based on the investigation results, a new approach to the physics of magnetic phenomena, using the complete rational basis of invariants and avoiding potential series expansion, has been developed.

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