

DIELECTRIC RESONATORS
WITH “WHISPERING-GALLERY”
WAVES IN INVESTIGATIONS
OF SMALL-VOLUME BINARY SOLUTIONS

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S u m m a r y

A new method of investigation of the parameters of aqueous binary solutions is proposed. It is applicable for small amounts ($(4\div 8) \times 10^{-3}$ ml) of a solution. The method uses quasioptical dielectric resonators, in which “whispering-gallery” modes are excited. The frequency shift and Q -factor of the HE mode of a resonator depend on the complex dielectric permittivity of the sample under study.