

A MODEL OF WATER
DIELECTRIC PERMITTIVITY
IN MICROWAVE AND TERAHERTZ RANGES

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S u m m a r y

A model for the calculation of the frequency and temperature dependences of the complex dielectric permittivity (DP) of water within a wide frequency range $f = 0.03 \div 3$ THz ($\lambda = 0.1 \div 10.0$ mm) has been proposed. It reproduces the smooth transition from the Debye mechanism of polarization to the resonance one and ensures a good agreement (with an accuracy of not worse than 5%) between the experimental and theoretical data.