

THE GENERAL FINDING TECHNIQUE
OF EFFECTIVE PARAMETERS
FOR NON-UNIFORM SOLIDS

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S u m m a r y

A general theoretical method of determination of the effective parameters of heterogeneous physical solids is discussed. This method is demonstrated for a simple example of the determination of the effective electrical resistance and in the more complex case of finding the effective thermal conductivity of two-layer structures in photothermal experiments. Unlike previous works devoted to this problem, the bulk light absorption is considered. It is shown that the effective thermal parameters depend in the general case on the optical parameters of layers and the effective sample. The method of standardization of the effective thermal conductivity is proposed.