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The invention relates to the field of electrical and electronic measurements and can be used for high-precision measurement of impedance components.

The method consists in the formation of a resonance measuring circuit from the measured object and output terminals of an impedance converter with separate control of the module and phase of the reproducible impedance, power supply of the measuring circuit with measuring signal, formation of a disbalance signal, resulting from the interaction of the resonant circuit with the measuring signal, equilibration of the measuring circuit by adjusting the impedance reproduced by the converter and determining the unknown impedance components of their dependence on the input quantities of the converter. Accor-ding to the method, it is additionally formed a standard signal with the same phase as the impedance reproduced by the converter, the converter is provided with the predetermined values of the module and phase of the reproduced impedance equal, respectively, to the maximum value of the control range and 180°. Equilibration of the measuring circuit is performed in two stages: at the first stage is controlled the phase of the reproduced impedance in the value range of 90...270° up to the attainment of the 0° phase shift between the disbalance signal and standard signal, and at the second stage is controlled the module of the reproduced impedance up to the step of going of the given phase shift from 0° value to 180° value.

The result of the invention consists in the possibility of measuring the impedance components in polar coordinates with high precision and simple algorithm.

Claims: 2
Fig.: 2