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### Electrical conduction mechanism of amorphous As–S–Se chalcogenides with small concentration of Ag

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Electrical conduction mechanism of amorphous  $\text{Ag}_{0.5}(\text{As}_{40}\text{S}_{30}\text{Se}_{30})_{99.5}$  chalcogenide alloy prepared by a melt–quenching technique has been investigated using the complex impedance spectroscopy at different temperatures in the frequency range from 100 Hz to 1 MHz. The detailed analysis of impedance spectra by means of an equivalent circuit model revealed the presence of temperature dependent electrical relaxation phenomenon of the non–Debye type as well as negative temperature coefficient of resistance behaviour. The nature of frequency dependence of AC conductivity follows the jonscher's power law, while DC conductivity data follows Arrhenius behaviour with the activation energy of 0.944 eV.

#### Biography

Svetlana R. Lukić-Petrović is full professor in the field of condensed matter physics at the university of novi sad, faculty of sciences, department of physics. She is the chair of the laboratory for condensed matter physics and the head organizer of the teaching process for the study module material physics at master and phd levels. She is a member of the International Forum of Chalcogenides. She has published more than 100 papers in international journals and has participated at many domestic and international conferences, debates and workshops. The total number of her citations is 556 and h-index is 12.

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