

**FIFTEENTH YOUNG RESEARCHERS' CONFERENCE
MATERIALS SCIENCE AND ENGINEERING**

**December 7-9, 2016, Belgrade, Serbia
Serbian Academy of Sciences and Arts, Knez Mihailova 36**

Program and the Book of Abstracts

**Materials Research Society of Serbia
&
Institute of Technical Sciences of SASA**

December 2016, Belgrade, Serbia

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Aim of the Conference

Main aim of the conference is to enable young researchers (post-graduate, master or doctoral student, or a PhD holder younger than 35) working in the field of materials science and engineering, to meet their colleagues and exchange experiences about their research.

Topics

Biomaterials
Environmental materials
Materials for high-technology applications
Nanostructured materials
New synthesis and processing methods
Theoretical modelling of materials

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Results of the Conference

Beside printed «Program and the Book of Abstracts», which is disseminated to all conference participants, selected and awarded peer-reviewed papers will be published in journals “Tehnika – Novi Materijali” and “Processing and Application of Ceramics“. The best presented papers, suggested by Session Chairpersons and selected by Awards Committee, will be proclaimed at the Closing Ceremony.

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ANALYSIS
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**Fabrication, characterization and photoelectrochemical behavior
of Fe₂TiO₅ screen printed thick films**

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Pseudobrookite paste was composed of a mixture of starting nanopowders of hematite (α -Fe₂O₃) and anatase (TiO₂) in the molar ratio 1:1.5, organic vehicle and glass frit. The paste was screen printed on fluorine-doped tin oxide (FTO) glass substrate using screen printing technology. Structural, morphological and optical studies have been carried out using X-ray diffraction (XRD), scanning electron microscopy (SEM), energy dispersive spectroscopy (EDS) and transmission electron microscopy (TEM). The photo-electrochemical performance of Fe₂TiO₅ screen printed thick film was examined under xenon lamp illumination in 1 M NaOH electrolyte.