

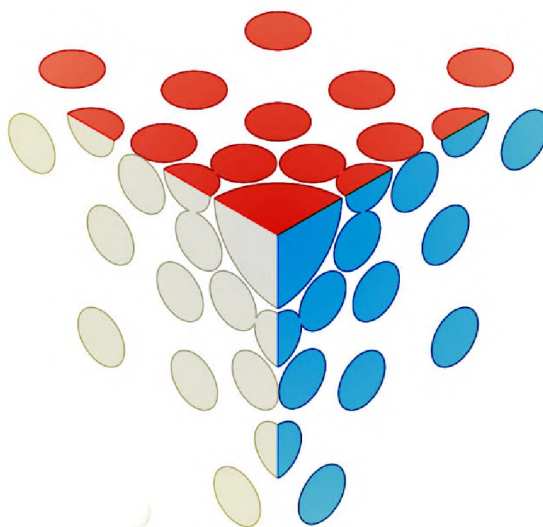
The joint event of

**The Eleventh Young Researchers' Conference  
Materials Science and Engineering**

and

**The First European Early Stage Researchers' Conference on  
Hydrogen Storage**

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**PROGRAM AND THE BOOK OF ABSTRACTS**

**MATERIALS RESEARCH SOCIETY of SERBIA  
INSTITUTE of TECHNICAL SCIENCES of SASA  
VINČA INSTITUTE of NUCLEAR SCIENCES, UNIVERSITY of BELGRADE  
HYDROGEN STORAGE INITIATIVE SERBIA**

**PROGRAM AND THE BOOK OF ABSTRACTS**

**JOINT EVENT OF THE 11<sup>TH</sup> YOUNG RESEARCHERS' CONFERENCE: MATERIALS  
SCIENCE AND ENGINEERING**

**AND**

**THE 1<sup>ST</sup> EUROPEAN EARLY STAGE RESEARCHERS' CONFERENCE ON HYDROGEN  
STORAGE**

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Nenad Ignjatović**

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**TM 40**

## **NOVEL ASYMMETRIC POLYETHERSULFONE MEMBRANES FOR ULTRAFILTRATION APPLICATION**

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Ultrafiltration has recently become popular as a promising separation method in many industrial processes covering fractionation and concentration steps in the food, pharmaceutical and biotechnology industries as much as in water and wastewater treatments. This paper presents the synthesis of novel asymmetric polyethersulfone membranes containing an interpenetrating network of poly(glycidyl methacrylate) (PGMA). In order to improve the properties and application range of membranes, the epoxy groups from PGMA are converted to amine groups by ring opening under alkaline conditions. Membranes before and after functionalization are characterized by FTIR-ATR, elemental analysis and water permeability.

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