

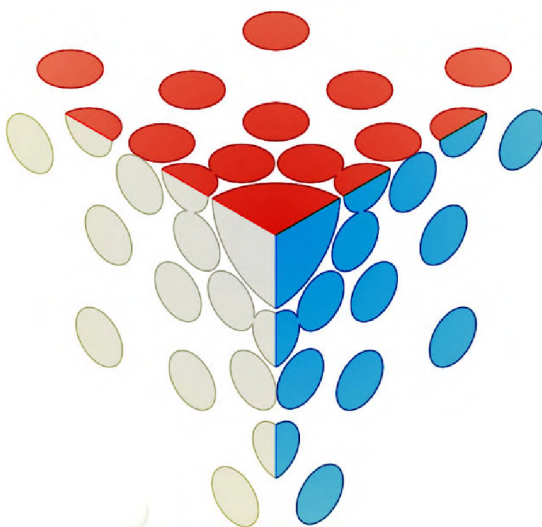
The joint event of

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

and

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

Belgrade, December 3<sup>rd</sup> - 5<sup>th</sup>, 2012



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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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**Jasmina Grbović Novaković**

**Nenad Ignjatović**

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**TM 20**

## **DEPOSITION OF THE DLC STRUCTURES IN THE LOW-PRESSURE OXY-ACETYLENE FLAT FLAME**

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The morphology and phase composition of the diamond-like carbon (DLC) structures as a function of the deposition process parameters are investigated. The DLC was deposited in the low-pressure oxy-acetylene flat flame onto molybdenum substrates. It was done with the designed flame burner by spreading the flame over the area of 40 mm in diameter with the overall acetylene and oxygen flow up to 4 l/min and by changing the substrate distance and the O<sub>2</sub>/C<sub>2</sub>H<sub>2</sub> ratio. The morphology and the phase composition of the DLC coatings significantly depend on the deposition process parameters, especially on the O<sub>2</sub>/C<sub>2</sub>H<sub>2</sub> ratio.

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