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HYDROGEN STORAGE INITIATIVE SERBIA**

PROGRAM AND THE BOOK OF ABSTRACTS

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

AND

**THE 1ST EUROPEAN EARLY STAGE RESEARCHERS' CONFERENCE ON HYDROGEN
STORAGE**

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Jasmina Grbović Novaković
Nenad Ignjatović**

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**SYNTHESIS AND CHARACTERIZATION OF SELENIUM NANOPARTICLES
IN THE PRESENCE OF BOVINE SERUM ALBUMIN OR POLY (L-
GLUTAMIC ACID) FOR BIOMEDICAL APPLICATION**

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It is well known that selenium is an essential trace element playing the important roles in mammalian biology. For years, its organic forms and some salts have been used in studying its biological effects, but recently, selenium nanoparticles have gained great attention as a possible material for cancer therapy and prevention. In this study we report the facile and reproducible method for synthesis the nano-selenium by reduction of sodium selenite with an ascorbic acid, in the presence of a two stabilizing agents, bovine serum albumin (BSA) or poly (L-glutamic acid) (PGA). The influence of the sodium selenite/ascorbic acid ratio as well as the types and concentration of two different stabilizers on the wide variety physicochemical characteristics of obtained particles were examined.

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