

**The Serbian Ceramic Society  
Vinča Institute of Nuclear Sciences, University of Belgrade  
Institute for Multidisciplinary Research, University of Belgrade  
Institute of Physics, University of Belgrade**

# **PROGRAM AND THE BOOK OF ABSTRACTS**

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## OXYGEN REDUCTION REACTION ON ANODICALLY FORMED TITANIUM-DIOXIDE – FILM SIZE INFLUENCE

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Oxygen reduction reaction (ORR) was investigated. This reaction is especially interesting as being a main cathodic reaction in fuel cells. ORR on anodically formed titanium-dioxide was studied in 0,1M NaOH solution. Different film thickness was anodically formed on different final potentials (0V, 1V and 2V). Titanium-dioxide film formed on lowest final potential shows greatest current density on the potential of oxygen electrode (potential of non polarized oxygen electrode), than films formed on other two final potentials. This shows that TiO<sub>2</sub> layer formed on the smallest final potential have the best catalytically performances for oxygen reduction.

## PHASE AND DEMOGRAPHIC STATISTICAL ANALYSIS OF URINARY STONES

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The idea of this paper is to investigate the phase composition and demographic distribution of urinary stones Serbian patients of both sexes. To determine the phase characteristics, we were use a method of X-ray diffraction analysis. X-ray diffraction analysis of the samples indicate the presence of the following phases: Whewelite (CaC<sub>2</sub>O<sub>4</sub> • H<sub>2</sub>O) and Weddelite (CaC<sub>2</sub>O<sub>4</sub> • 2H<sub>2</sub>O) from oxalate, Apatite (Ca<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>X), Brushite (Ca (HPO<sub>4</sub>) • 2H<sub>2</sub>O) and Struvite (MgNH<sub>4</sub>PO<sub>4</sub>•6H<sub>2</sub>O) from phosphate, as well as Uricite (C<sub>5</sub>H<sub>4</sub>N<sub>4</sub>O<sub>3</sub>) and L – cystine (C<sub>6</sub>H<sub>12</sub>N<sub>2</sub>O<sub>4</sub>S<sub>2</sub>). The SEM analysis confirmed the obtained structure.