



Serbian Ceramic Society Conference
ADVANCED CERAMICS AND APPLICATION IX
New Frontiers in Multifunctional Material Science and Processing

Serbian Ceramic Society
Institute of Technical Sciences of SASA
Institute for Testing of Materials
Institute of Chemistry Technology and Metallurgy
Institute for Technology of Nuclear and Other Raw Mineral Materials

PROGRAM AND THE BOOK OF ABSTRACTS

Serbian Academy of Sciences and Arts, Knez Mihailova 35
Serbia, Belgrade, 20-21. September 2021.

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Book title: Serbian Ceramic Society Conference - ADVANCED CERAMICS AND APPLICATION IX Program and the Book of Abstracts

Publisher:

Serbian Ceramic Society

Editors:

Prof.dr Vojislav Mitić

Dr Lidija Mančić

Dr Nina Obradović

Technical Editors:

Ivana Dinić

Marina Vuković

Printing:

Serbian Ceramic Society, Belgrade, 2021

Edition:

100 copies

CIP - Каталогизacija y yбликацији
Народна библиотека Србије, Београд

666.3/.7(048)

66.017/.018(048)

SRPSKO KERAMIČKO DRUŠTVO. CONFERENCE ADVANCED CERAMICS AND APPLICATION : NEW FRONTIERS IN MULTIFUNCTIONAL MATERIAL SCIENCE AND PROCESSING (9 ;2021 ; BEOGRAD)

Program ; and the Book of abstracts / Serbian Ceramic Society Conference Advanced Ceramics and Application IX : New Frontiers in Multifunctional Material Science and Processing, Serbia, Belgrade, 20-21. September 2021 ; [organized by Serbian Ceramic Society ... [et al.] ; [editors Vojislav Mitić, Lidija Mančić, Nina Obradović]. - Belgrade : Serbian Ceramic Society, 2021 (Belgrade : Serbian Ceramic Society). - 93 str. : ilustr. ; 30 cm

Tiraž 100.

ISBN 978-86-915627-8-6

а) Керамика -- Апстракти б) Наука о материјалима -- Апстракти в) Наноматеријали -- Апстракти

COBISS.SR-ID 45804553

ORL

Determination of corrosion products of Ag-Cu alloy by laser desorption ionization mass spectrometry

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Silver alloys are generally used in the different fields of industry, including chemical processing, construction, heat exchangers, etc. Although Ag-Cu-Zn-Cd type of alloys, were widely exploited in the second half of the 20th century for their excellent properties, its use is forbidden in the EU due to the high toxicity of cadmium vapors. Ag-Cu-In type of alloy is a good alternative to Ag-Cu-Zn-Cd alloys, with great properties and can be used in various fields of industry. Most common methods for characterization of surface corrosion films of Ag-Cu alloys are: X-ray diffraction (XRD), scanning electron microscopy with energy dispersion spectroscopy (SEM-EDS), Raman spectroscopy and atomic force microscopy (AFM). Our current study focuses on the application of laser desorption ionization mass spectrometry (LDI MS) for determination of corrosion products of Ag-Cu alloy. The aim of this study was to confirm LDI MS as a fast, accurate and reliable method for determination of corrosion products on the surface of Ag-Cu-In alloy.

ORL

Natural active compounds in the prevention of oxidative stress

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Significant amount of natural active compounds are present in the fruit. Those compounds exhibit beneficial effect on the human health. Antioxidant properties are very important for health prevention. The aim of this study was to investigate natural active compounds from fruit wines and its activity on enzymes of antioxidant protection in vitro. Fruit wines were produced in controlled conditions during microvinifications. Phenolic profile of fruit wines were obtained by UPLC MS/MS, while enzymatic activity determined by spectrophotometric