

# Участия



## Изследване Механизмите на проводимост и Обратимост в иновативен Дизайн на твърдооксидни горивни клетки

Договор ДФНИ №Е02/3/2014 от 12.12.2014 на ФНИ – МОН

### SCIENCE AND TECHNOLOGY FORESIGHT PROJECT (STFP) WORKSHOP: NEXT GENERATION ENERGY STORAGE TECHNOLOGIES CHALLENGES AND OPPORTUNITIES, 02 - 04 DECEMBER 2015, TAORMINA, ITALY

1. Daria Vladikova  
Advances in Hydrogen Technologies and Fuel cells ([pdf](#))

### 8-TH CONGRESS OF THE BALKAN GEOPHYSICAL SOCIETY, 04 -08 OCTOBER 2015, CHANIA, CRETE, GREECE

2. Krezhov, K,  
Study of products from neutrophilic iron bacteria by prompt gamma/neutron activation analysis and X-ray diffraction ([pdf](#))

### THE SERBIAN CERAMIC SOCIETY CONFERENCE: ADVANCED CERAMICS AND APPLICATION IV: NEW FRONTIERS IN MULTIFUNCTIONAL MATERIAL SCIENCE AND PROCESSING, 21 - 23 SEPTEMBER 2015, BELGRADE, SERBIA

3. Nikolova, D., Gabrovska, M., Mladenova, E., Vladikova, D., Stoynov, Z., Rakovsky, S.  
Structure characterization of Ni incorporated SOFC anode ceramic matrixes ([pdf](#))

### 9<sup>TH</sup> INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION, 24 - 28 AUGUST 2015, ISTANBUL, TURKEY

4. Krezhov, K., Vladikova, D., Raikova, G., Genov, I., Svab, E., Fabian  
Structure Study of  $\text{BaCe}_{0.85}\text{Y}_{0.15}\text{O}_{3-\Delta}$  (BCY15) as SOFC Material([pdf](#))

### ECS CONFERENCE ON ELECTROCHEMICAL ENERGY CONVERSION & STORAGE WITH SOFC-XIV, 26 - 31 JULY 2015, GLASGOW, SCOTLAND

5. Masson, D., Perrozi, F., Piccardo, P., Viviani, M., Claire, P., Stoynov, Z., Vladikova, D., Chesnaud, A., Thorel, A.  
Shaping of a Dual Membrane SOFC and First Electrochemical Tests in a Dedicated 3-Chamber Set-up ([pdf](#))

**3<sup>RD</sup> INTERNATIONAL WORKSHOP ON PROTONIC CERAMIC FUEL CELL STATUS & PROSPECTS, 08 - 10 JULY 2015, BORDEAUX, FRANCE**

6. David Masson, Franchesco Perrozzi, Paolo Piccardo, Claire Pilot, Zdravko Stoykov, Daria Vladikova, Anthony Chesnaud, Alain Thorel

Electrochemical tests of a dual membrane SOFC in a dedicated 3-chamber set-up

7. Daria Vladikova, David Masson, Zdravko Stoykov, Ivaylo Genov, Claire Pilot, Anthony Chesnaud, Alain Thorel, Gergana Raikova

Application of BaCe<sub>0.85</sub>Y<sub>0.15</sub>O<sub>2.925</sub> for the Development of Fuel Cell Operated in Reversed Mode ([pdf](#))

**SEMINAR IN "JOINT INSTITUTE FOR NUCLEAR RESEARCH", 30 JUNE 2015, DUBNA, RUSSIA**

8. Vladikova D., Stoykov Z., Thorel A., Chesnaud A., Viviani M., Barbucci A., Nicoletta C., Bertei A., Carpanese P., Raikova G., Krapchanska M.

Towards New Applications of Proton Conducting Solid Electrolytes – Reversible Fuel Cells ([pdf](#))

**2<sup>ND</sup> INTERNATIONAL CONFERENCE ON ENERGY AND ENVIRONMENT: BRINGING TOGETHER ENGINEERING AND ECONOMICS – ICEE 2015, 18 - 19 JUNE 2015, GUIMARÃES, PORTUGAL**

9. Petkova T., Koleva O., Kochnitcharova D., Lefterova E., Shipochka M., Petkov P.

Study of novel oxide materials for SOFCs application ([pdf](#))

**THIRD INTERNATIONAL CONFERENCE ON RADIATION AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH, 8-12 JUNE 2015, BUDVA, MONTENEGRO**

10. Krezhov, K., Vladikova, D., Raikova, G., Svab, E., Fabian, M., Genov, I., Dimitrov, D.

Room temperature neutron diffraction study of the proton conducting BaCe<sub>0.85</sub>Y<sub>0.15</sub>O<sub>3-δ</sub> (BCY15) ([pdf](#))

**5<sup>TH</sup> REGIONAL SYMPOSIUM ON ELECTROCHEMISTRY SOUTH - EAST-EUROPE WITH SOFIA ELECTROCHEMICAL DAYS '2015, 07 - 11 JUNE 2015, PRAVETS, BULGARIA**

11. Mladenova, E., Stoykov, Z., Vladikova, D.

Behaviour of polarizable dielectric liquid in functional ceramics by permittivity spectroscopy ([pdf](#))

12. Koleva, O., Kochnitcharova, D., Krapchanska, M., Lefterova, E., Vladikova, D., Petkova, T.

Structure-conductivity correlation of (TiO<sub>2</sub>)<sub>x</sub>(V<sub>2</sub>O<sub>5</sub>)<sub>y</sub>(P<sub>2</sub>O<sub>5</sub>)<sub>100-x-y</sub> system for SOFCs application ([pdf](#))

13. Genov, I., Burdin, B., Vladikova, D., Stoykov, Z., Geagea, M., Chesnaud, A., Thorel, A.

Gas Permeability Studies of Ni-YSZ Cermet Anodes for SOFCs ([pdf](#))

14. Slavkova Z., Koleva O., Petkova T., Zdanowska-Frączek M., Ławniczak P., Lindner Ł.

Study of LiNaSO<sub>4</sub> as electrolyte material ([pdf](#))

15. Ilcheva V., Kanazirski I., Lefterova E., Petkov P., Boev V., Petkova T.

Electrical conductivity of (As<sub>2</sub>Se<sub>3</sub>)<sub>100-x</sub>Ag<sub>x</sub> bulk glasses ([pdf](#))

**EUROPEAN ENERGY RESEARCH ALLIANCE WORKSHOP “BRIDGING EXPERIMENTAL AND NUMERICAL RESEARCH: NEXT GENERATION ELECTRODES AND CATALYSTS FOR MORE DURABLE AND EFFICIENT FUEL AND ELECTROLYSIS CELLS”, 20 - 21 MAY 2015, DTU RISØ CAMPUS ROSKILDE, DENMARK**

16. Vladikova, D.

In situ impedance monitoring of NiO-YSZ anode behavior during its initial reduction and redox cycling ([pdf](#))

**SERBIAN CERAMIC SOCIETY CONFERENCE: ADVANCED CERAMICS AND APPLICATION V: NEW FRONTIERS IN MULTIFUNCTIONAL MATERIAL SCIENCE AND PROCESSING, 21>23.09.2016, BELGRADE, SERBIA**

17. Yttrium doped barium cerate: ceramic matrix in the solid oxide fuel cells”,

M. Gabrovska, D. Nikolova, S. Rakovsky, D. Vladikova, E. Mladenova, Z. Stoynov, , Keynote Session 2, Key-note lecture KN7, Program and the Book of Abstracts, p. 30.([pdf](#))

**SOFIA ELECTROCHEMICAL DAYS'2017, MAY 10>13, 2017, SOFIA, BULGARIA**

18. “Ni incorporation in pSOFC anode ceramic matrix by wet chemical reduction in anhydrous medium” M. Gabrovska, D. Nikolova, E. Mladenova, D. Vladikova, S. Rakovsky, D. Stoynov, , Poster PII-06, Book of Abstracts, p. 59 ([pdf](#))

19. O. Kostadinova, Z. Slavkova, , E. Mladenova , B.Buridin T. Petkova,P. L. Lindner, M. Zdanowska – Fraczek, D. Vladikova, Structural arrangement effect on charge transport and conductivity of pure and composite LiNaSO<sub>4</sub> materials ([pdf](#))

20. Z. Slavkova, O. Kostadinova, T. Petkova , M. Zdanowska – Fraczek, P. Lawniczak, L. Lindner, G. Avdeev, LiNaSO<sub>4</sub>-NaNO<sub>3</sub> composite materials for electrochemical application ([pdf](#))

**13TH EUROPEAN CONGRESS ON CATALYSIS (EUROPACAT2017), CATALYSIS - A BRIDGE TO THE FUTURE, FLORENCE, ITALY, 27>31 AUGUST**

21. Preparation of Ni cermet for proton conducting solid oxide fuel cell anode, M. Gabrovska, D. Nikolova, E. Mladenova, D. Vladikova, S. Rakovsky, Z. Stoynov, , Poster Session II, Poster P1.57. ([pdf](#))

**SERBIAN CERAMIC SOCIETY CONFERENCE ADVANCED CERAMICS AND APPLICATION VI: NEW FRONTIERS IN MULTIFUNCTIONAL MATERIAL SCIENCE AND PROCESSING THE SERBIAN CERAMIC SOCIETY CONFERENCE, BELGRADE, SERBIA, 18>20 SEPTEMBER 2017**

22. Wet-chemical approach for Ni deposition in BCY15 ceramic matrix: Structure and anode cermet activity in pSOFC”, M. Gabrovska, D. Nikolova, E. Mladenova, D. Vladikova, S. Rakovsky, Z. Stoynov, Invited lecture INV-MCC2, Program and the Book of Abstracts, p. 54 ([pdf](#))

23. Surface properties of Ni/BCY15 cermet anodes obtained by deposition wet reduction, D. Nikolova, M. Gabrovska, A. Tsanev, E. Mladenova, D. Vladikova, S. Rakovsky, Z. Stoynov, p. 69. ([pdf](#))

**15TH NATIONAL CONFERENCE ON CATALYSIS AND 8TH SCIENTIFIC SESSION ON CATALYSIS FOR STUDENTS AND YOUNG RESEARCHERS DEDICATED TO THE 20TH ANNIVERSARY OF THE DEATH OF PROF. ATANAS ANDREEV, DSc., BULGARIAN CATALYSIS CLUB, 30 NOVEMBER 2017, INSTITUTE OF CATALYSIS, BULGARIAN ACADEMY OF SCIENCES, SOFIA, BULGARIA**

24. Post-synthesis characterization of Ni/BCY15 cermet anodes obtained by wet-reduction approach”, D. Nikolova, M. Gabrovska, Y. Karakirova, A. Tsanev, E. Mladenova, D. Vladikova, S. Rakovsky, Z. Stoynov, , Poster 37, Book of Abstracts, p. 42. ([pdf](#))

**INTERNATIONAL CONFERENCE, "MLZ: NEUTRONS FOR ENERGY", 18-22 JULY 2016, BAD REICHENHALL, GERMANY**

25. K.A. Krezhov, D. Vladikova, A. Thorel, A. Chasnaud, T. Malakova, I. Genov, G. Raikova, "Neutron and X-ray Diffraction Studies of  $\text{BaCe}_{0.85}\text{Y}_{0.15}\text{O}_{3-\delta}$  (BCY15) for Application in an Innovative Design of Fuel Cell", Oral: Wednesday, 20 July 2016 10:10 (0.20) Abstract book , p.33. <https://indico.frm2.tum.de/event/29/book-of-abstracts.pdf> ([pdf](#))

**INTERNATIONAL CONFERENCE "CONDENSED MATTER RESEARCH AT THE IBR-2", OCTOBER 09-12, 2017, DUBNA, RUSSIA**

26. K.A. Krezhov, D.E. Vladikova, A. Senyshin, G. Raikova, T. Malakova, I. Genov, D.P. Kozlenko; Mixed Ion Conducting BCY15 Based Materials For Clean Energy Applications: Structural Features, Abstract book pp. 35-36; ISBN 978-5-9530-0480-0 ([pdf](#))
27. I.G. Genov, K.A. Krezhov, G.S. Raikova, D.P. Kozlenko, S.E. Kichanov, D.E. Vladikova; Mixed Ion Conducting BCY15 Based Materials For Reversible Fuel Cells , , Abstract book pp. 152-153; ISBN 978-5-9530-0480-0 ([pdf](#))

**FOURTH INTERNATIONAL CONFERENCE ON RADIATION AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH, RAD 2016, MAY 23-27, NIS, SERBIA**

28. K. Krezhov et al., " $\text{BaCe}_{0.85}\text{Y}_{0.15}\text{O}_{3-\Delta}$  Based Materials for Solid Oxide Fuel Cells: Room Temperature Neutron Diffraction Study, Oral presentation (2016) ([pdf](#))

**24TH MEETING OF THE INTERNATIONAL SCIENTIFIC ADVISORY COUNCIL (ISAC), 11TH - 12TH NOVEMBER, 2016, BUDAPEST, HUNGARY**

29. Kiril Krezhov: Neutron and X-ray diffraction studies of  $\text{BaCe}_{0.85}\text{Y}_{0.15}\text{O}_{3-\Delta}$  as a material in solid oxide fuel cells, Oral presentation,

**11TH INTERNATIONAL SYMPOSIUM ELECTROCHEMICAL IMPEDANCE ANALYSIS, NOVEMBER 6-10, CAMOGLI, ITALY**

30. Z. Stoynov, D. Vladikova and B. Burdin, Differential Resistance Analysis - Part I: Principle, ([pdf](#))

31. Z. Stoynov, D. Vladikova, B. Burdin, A. Nakajo, P. Piccardo, R. Spotorno, P. Szaboo, G. Schillera, D. Montinaros, Differential Resistance Analysis - Part II: Applications, ([pdf](#))

**THE 9TH INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS ROCAM 2017, THE 2TH INTERNATIONAL SYMPOSIUM ON DIELECTRIC MATERIALS AND APPLICATIONS, ISYDMA 2017, 11-14 JULY BUCHAREST, ROMANIA**

32. O. Kostadinova, Z. Slavkova, E. Mladenova, T. Petkova, L. Lawniczak, L. Lindner, M. Zdanowska – Fraczek, D. Vladikova, Structural organization influence on conductivity of pure and composite LiNaSO<sub>4</sub> materials, p. 100. ([pdf](#))

**NATO ADVANCED STUDY INSTITUTE (CBP. EAP. ASI 985310), ADVANCED TECHNOLOGIES FOR DETECTION AND DEFENCE AGAINST CBRN AGENTS, SOZOPOL, BULGARIA, 12-20.09.2017**

33. Z. Slavkova, O. Kostadinova, G. Avdeev, T. Petkova, LNS for advanced application in CBRN defence ([pdf](#))
34. O. Kostadinova, V. Ilcheva, V. Boev, B. Burdin, T. Petkova, D. Vladikova, Room temperature proton conductivity in composite oxide materials ([pdf](#))

**IV TH INTERNATIONAL CONFERENCE ON OXIDE – NON OXIDE MATERIALS FOR ORTOELECTRONICS AND ENERGY APPLICATION, 16-MARCH, BOROVEZ, BULGARIA**

35. O. Kostadinova, T. Petkova, D. Blaskova- Koshncharova, E. Lefterova, Network modification, of off- stoichiometric phosphate materials doped with transition metal for fuel cell application ([pdf](#))
36. Z. Slavkova, O. Kostadinova, M. Zdanowska – Fraczek, P. Lawniczak, L. Lindner, G. Avdeev, T. Petkova, Compositional dependence of the conductivity in lithium sodium sulphate ([pdf](#))

**XXVI INTERNATIONAL MATERIALS RESEARCH CONGRESS (IMRC) 2017, 20-25 AUGUST 2017, CANCUN, MEXICO**

37. D. Vladikova, Z. Stoynov, J. Laurencin, D. Montinaro, B. Burdin, M. Hubert, A. Nakajo, Differential Impedance Analysis – a New Tool for Evaluation of Fuel Cells Degradation, pp 69 ([pdf](#))
38. D. Vladikova, Electrochemical Impedance Spectroscopy: Basic Theory and Applications, ([pdf](#))

**SIXTH REGIONAL SYMPOSIUM ON ELECTROCHEMISTRY – SOUTH EAST EUROPE (RSE-SEE6), 11 - 15 JUNE 2017, BALATONKENESE, HUNGARY**

39. Daria Vladikova, Zdravko Stoykov, Blagoy Burdin, Jerome Laurencin, Dario Montinaro, Maxim Hubert, Advanced testing analysis for SOFC degradation studies, Book of Abstracts, p.14 ([pdf](#))

**EUROPEAN FUEL CELL TECHNOLOGY & APPLICATIONS CONFERENCE - PIERO LUNGI CONFERENCE,  
DECEMBER 12-15, 2017, NAPLES, ITALY**

40. D. Vladikova, Z. Stoykov, B. Burdin, J. Laurentin, D. Montinaro, and M. Hubert, Advanced testing and analysis of SOFC degradation, Book of Abstracts, p.28 ([pdf](#))