

ИНСТИТУТ ТЕХНИЧКИХ НАУКА САНУ

Кнеза Михаила 35/IV

Београд

Научном већу

Комисији за праћење рада запослених у научним и истраживачким звањима

### МОЛБА

#### за покретање поступка за избор у звање

У складу са одредбама Закона о науци и истраживањима, („Службени гласник Републике Србије“, број 49/2019) као и Правилнику о стицању научних и истраживачких звања („Службени гласник Републике Србије“, број 159/2020 и 14/2023) молим да покренете поступак за мој избор у звање **виши научни сарадник**.

За чланове комисије за припрему извештаја предлажем:

- др Лидија Манчић, научни саветник, Институт техничких наука САНУ
- др Љиљана Веселиновић, виши научни сарадник, Институт техничких наука САНУ
- др Марина Вуковић, виши научни сарадник, Институт техничких наука САНУ
- др Михаило Рабасовић, виши научни сарадник, Институт за физику у Београду

Уз молбу достављам:

1. Стручну биографију
2. Библиографију
3. Копију дипломе о стеченом звању доктора наука
4. Копију одлуке о стицању звања научни сарадник
5. Извештај о цитираности
6. Доказе о испуњавању квалитативних услова

Београд, 24.06.2024.

Подносилац молбе,

*Ивана Динић*

др Ивана Динић

научни сарадник

Институт техничких наука САНУ

## 1. СТРУЧНА БИОГРАФИЈА

Ивана Динић је рођена 6. априла 1987. године у Зајечару. Завршила је средњу медицинску школу, смер фармацеутски техничар, у Зајечару. Основне студије на Технолошко-металуршком факултету уписала је 2006. године, на студијском програму Хемијска технологија смер Фармацеутско инжењерство, где је дипломирала 2011. године са просечном оценом 7,98 (дипломски рад „Утицај јона бакра на дифузиона својства бакар/поли(2-хидроксиетил акрилат/итаконска киселина) хибридни хидрогелова“). Мастер академске студије уписала је 2011. године на студијском програму Биохемијско инжењерство и биотехнологија. Одбраном мастер рада са темом „Оптимизација ензимске синтезе флоридзил-олеата методом одзивних површина“ завршила је мастер академске студије 2012. године. Докторске академске студије уписала је 2012. године на истом факултету, на смеру Биохемијско инжењерство и биотехнологија. Докторске академске студије је завршила одбраном докторске дисертације под називом „Синтеза и карактеризација биокомпатибилних оптички активних флуорида ретких земаља“, у фебруару 2019. године (Прилог 1). Од 03.07.2017 до 31.08.2020. године је била запослена у Иновационом центру Хемијског факултета Универзитета у Београду као истраживач сарадник, и ангажована на пројекту ОИ172035 „Рационални дизајн и синтеза биолошки активних и координационих једињења и функционалних материјала, релевантних у (био)нанотехнологији“ Министарства просвете, науке и технолошког развоја РС. У звање научни сарадник изабрана је 24.02.2020. године (Прилог 2). Од 01.09.2020. године је запослена у Институту техничких наука САНУ.

Научноистраживачка делатност др Иване Динић оријентисана је ка синтези и карактеризацији хијерархијских и хибридни оптички активних наноструктурних материјала са потенцијалном применом у биомедицини, форензици, фотокатализи, и за израду соларних ћелија.

До сада је објавила 13 научних радова у међународним часописима и 2 у часопису од националног значаја (M52). У врхунским међународним часописима (M21) објавила је 9 радова, у истакнутим међународним часописима (M22) 3 рада и у међународном часопису (M23) 1 рад. Након избора у звање научни сарадник објавила је 6 радова у врхунским међународним часописима (M21), 2 рада у истакнутим међународним часописима (M22) и 1 рад у међународном часопису (M23). Хиршов индекс Иване Динић је 5, цитираност је 95, од којих су 69 хетероцитати (*Web of Science Core Collection* и *Scopus*, на дан 1.јуна 2024.), (Прилог 3).

## 1.1 Показатељи успеха у научном раду

- **Награде и признања за научни рад додељене од стране релевантних научних институција и друштва:**

Награда за најбољу постер презентацију на конференцији АСА III (Advanced Ceramic and Application Conference III) 2014. године (Прилог 4).

- **Предавања по позиву:**

**Ivana Dinic**, Marina Vukovic, Marko Nikolic, Lidija Mancic, Influence of solvothermal synthesis parameters on  $\text{NaY}_{0.65}\text{Gd}_{0.15}\text{F}_4:\text{Yb}_{0.18}\text{Er}_{0.02}$  UCNPs structural, morphological and optical characteristics, Advanced Ceramics and Applications Conference IX: New Frontiers in Multifunctional Material Science and Processing, 20-21 September, 2021, Belgrade, Serbia, Program and the book of abstracts, p 34-35 (Прилог 5)

- **Рецензије научних радова:**

Zeitschrift fur Anorganische und Allgemeine Chemie (ZAAC) (категорија: M23, ИФ 1,4), 1 рецензија (Прилог 6)

Materials Characterization (категорија: M21, ИФ 4,7), 1 рецензија (Прилог 6)

Optik (категорија: M22, ИФ 3,1), 2 рецензије (Прилог 6)

ACS Omega (категорија: M22, ИФ 4,1), 1 рецензија (Прилог 6)

Optical Materials (категорија: M22, ИФ 3,9), 2 рецензије (Прилог 6)

- **Ангажовање на пројектима:**

2017-2019. Пројекат „Рационални дизајн и синтеза биолошки активних и координационих једињења и функционалних материјала, релевантних у (био) нанотехнологији” (ОИ 172035), руководилац пројекта др Александар Николић, Хемијски факултет Универзитета у Београду

2018-2019. Билатерални пројекат са Словенијом, са називом: Наноструктурни и мезопорозни функционални материјали са израженим фотокаталитичким особинама у УВ и видљивом делу спектра (пројекат координатори др Владислав Рац - Пољопривредни факултет УБ, Београд Србија и др Сречо Шкапин – Институт Јозеф Стефан, Љубљана, Словенија)

2021- COST акција CA20130 под називом: *Euro-MIC; European-MIC Network – New paths for science, sustainability and standards*, координатор др Смиља Марковић, Институт техничких наука САНУ, др Ивана Динић је ИТЦ координатор конференцијских грантова (Прилог 7).

2023-2024. Међуакадемијска сарадња САНУ и Словачке академије наука, пројекат „Припрема  $ZnTiO_3$ ,  $ZnO$  и  $(YGd)_2O_3:Eu$  керамике конвенционалном и импулсном техником синтеровања електричном струјом“, руководилац пројекта др Небојша Лабус, ИТН САНУ, учесници др Смиља Марковић, др Ана Станковић и др Ивана Динић.

## **1.2. Ангажованост у развоју услова за научни рад, образовању и формирању научних кадрова:**

Својим знањем и искуством у карактеризацији структурних, морфолошких и оптичких особина материјала др Ивана Динић је дала значајан допринос у развоју и образовању научних кадрова кроз рад са студентима и током израде њихових мастер радова, о чему говоре извештај о спровођењу стручне праксе, као и захвалница из мастер рада студента Ивана Супића. Такође је била и члан комисије за избор Тијане Стаменковић (Институт за нуклеарне науке „Винча“) у звање истраживач сарадник, као и члан комисије за оцену и одбрану докторске дисертације под називом „Синтеза, карактеризација и фотокаталитичка примена наночестица стронцијум-гадолинијум-оксида допираних јонима ретких земаља“, где је њен допринос наведен и у захвалници (одбрана докторске дисертације се очекује у септембру 2024.године. (Прилог 8)

### **• Организација научних скупова**

Члан је организационог одбора конференција Advanced Ceramics and Applications Conference: New Frontiers in Multifunctional Material Science and Processing, Београд, Србија од 2017. године, а од 2022. године је и финансијски секретар конференције, односно Српског керамичког друштва које је организатор наведене конференције. Од 2017-2021. године је била члан техничког комитета конференције Младих истраживача (Young Researchers Conference – Materials Science and Engineering - YRC), од 2022. обавља функцију секретара конференције, а од 2023. године постаје потпредседница научно-организационог одбора ове конференције. Члан је техничког одбора конференција YUCOMAT од 2018.године. Од 2022-2024. члан је техничког комитета конференције ELMINA, а од 2024. године је и члан организационог одбора ове конференције. (Прилог 9)

## **1.3. Организација научног рада:**

### **• Руководијење пројектима, потпројектима и задацима**

Др Ивана Динић је у периоду од 01.01.2019. до 31.12.2019. руководила пројектним задатком „Развој иновативних метода синтезе 1Д и 3Д функционалних наноматеријала“ у оквиру потпројекта „Синтеза и карактеризација 1Д и 3Д функционалних наноматеријала са

великим односом површине према запремини са применом у енергетици и екологији“, чији је руководилац била др Оливера Милошевић, а све то у оквиру пројекта ОИ 172035 „Рационални дизајн и синтеза биолошки активних и координационих једињења и функционалних материјала, релевантних у (био) нанотехнологији“ руководиоц пројекта др Александар Николић. (Прилог 10).

#### 1.4. Чланство у друштвима:

Др Ивана Динић је активан члан Српског керамичког друштва и Друштва за истраживање материјала Србије. До 2023. године била је и члан Америчког керамичког друштва. (Прилог 11)

## 2. БИБЛИОГРАФИЈА



<https://enauka.gov.rs/cris/rp/rp02823>



<https://orcid.org/0000-0002-0909-8230>



<https://www.scopus.com/authid/detail.uri?authorId=57006654100>

### 2.1 Радови објављени ПРЕ избора у звање научни сарадник

#### Радови у врхунским међународним часописима – М21

1. **Ivana Z Dinic**, Maria Eugenia Rabanal, Kazuhiro Yamamoto, Zhenquan Tan, Satoshi Ohara, Lidija T. Mancic, Olivera B. Milosevic, *PEG and PVP assisted solvothermal synthesis of NaYF<sub>4</sub>:Yb<sup>3+</sup>/Er<sup>3+</sup> up-conversion nanoparticles*, Advanced Powder Technology, 27 (2016) 845–853  
(Engineering, Chemical 39/135, IF=2,659 за 2016. год.)  
DOI: <https://doi.org/10.1016/j.appt.2015.11.010>
2. **Ivana Z Dinic**, Lidija T. Mancic, Maria Eugenia Rabanal, Kazuhiro Yamamoto, Satoshi Ohara, Sayaka Tamura, Tomita Koji, Antonio M.L.M. Costa, Bojan A. Marinkovic, Olivera B. Milosevic, *Compositional and structural dependence of up-converting rare earth fluorides obtained through EDTA assisted hydro/solvothermal synthesis*, Advanced Powder Technology, 28 (2017) 73–82  
(Engineering, Chemical 38/137, IF=2,943 за 2017. год.)  
DOI: <https://doi.org/10.1016/j.appt.2016.09.021>

3. Lidija Mancic, Aleksandra Djukic-Vukovic, **Ivana Dinic**, Marko G. Nikolic, Mihailo D. Rabasovic, Aleksandar J. Krmpot, Antonio M.L.M. Costa, Dijana Trisic, Milos Lazarevic, Ljiljana Mojovic, Olivera Milosevic, *NIR photo-driven upconversion in NaYF<sub>4</sub>:Yb,Er/PLGA particles for in vitro bioimaging of cancer cells*, Materials Science & Engineering C 91 (2018) 597–605  
(Materials Science, Biomaterials 7/32, IF=5,080 за 2017. год.)  
DOI: <https://doi.org/10.1016/j.msec.2018.05.081>

#### Рад у истакнутом међународном часопису - M22

1. Lidija Mancic, Aleksandra Djukic-Vukovic, **Ivana Dinic**, Marko G. Nikolic, Mihailo D. Rabasovic, Aleksandar J. Krmpot, Antonio M. L. M. Costa, Bojan A. Marinkovic, Ljiljana Mojovic, Olivera Milosevic, *One-step synthesis of amino-functionalized upconverting NaYF<sub>4</sub>:Yb,Er nanoparticles for in vitro cell imaging*, RSC Advanced, 8 (2018) 27429  
(Chemistry, Multidisciplinary 74/178, IF=3,049 за 2018. год.)  
DOI: <https://pubs.rsc.org/en/content/articlepdf/2018/ra/c8ra04178d>

#### Радови у часопису од националног значаја- M52

1. **I. Dinic**, L.Mancic, O.Milosevic, *Hidrotermalna sinteza optički aktivnih čestica fluorida dopiranih jonima retkih zemalja u prisustvu etilendiamintetrasirćetne kiseline (EDTA)*, Tehnika 4 (2016) 513-518

DOI:<http://www.sits.org.rs/include/data/docs1968.pdf>

1. **I. Dinic**, L.Mancic, O.Milosevic, *Hydrothermal synthesis of optically active fluoride particles doped with rare earth ions in the presence of ethylenediaminetetraacetic acid (EDTA)*, Tehnika, Special edition (in English) (2016) 9-14

DOI:<http://www.sits.org.rs/include/data/docs1728.pdf>

#### Саопштења са међународних скупова штампаних у изводу - M34

1. Milisavljević, A., Stojanović, M., **Dinić, I.**, Carević, M., Mihailović, M., Milosavić, N., Bezbradica, D.: Lipase-catalyzed synthesis of phloridzin esters, *8<sup>th</sup> International Conference of the Chemical Societies of the South-East European Countries*, 2013, Beograd, F P21.
2. **Ivana Z. Dinic**, Ivan M. Dugandzic, Lidija T. Mancic, Maria Eugenia Rabanal, Olivera B. Milosevic, *Surfactants Assisted Hydrothermal Synthesis of NaYF<sub>4</sub> co-doped Yb<sup>3+</sup>/Er<sup>3+</sup> Up-conversion Nanoparticles*, Advanced Ceramics and Applications Conference III: New Frontiers in Multifunctional Material Science and Processing, 29 September – 1 October, 2014, Belgrade, Serbia, Program and the book of abstracts, p 88.
2. **Ivana Z. Dinic**, Ivan M. Dugandzic, Lidija T. Mancic, Maria E. Rabanal, Kazuhiro Yamamoto, Zhenquan Tan, Satoshi Ohara, Olivera B. Milosevic, *PVP-assisted*

- Solvothermal Processing of Hexagonal NaYF<sub>4</sub>:Yb<sup>3+</sup>/Er<sup>3+</sup> Nanoparticles*, 14th European Ceramic conference, 20-25 June 2015, Toledo, Spain, Abstract ID 1897.
3. **Ivana Z. Dinic**, Lidija Mancic, Maria Eugenia Rabanal, Olivera B. Milosevic, *PEG assisted hydrothermal synthesis of NaYF<sub>4</sub>:Yb<sup>3+</sup>,Er<sup>3+</sup> nanoparticles*, Serbian Ceramic Society Conference - Advanced Ceramics and Application IV: New Frontiers in Multifunctional Material Science and Processing, 21-23 September, 2015, Belgrade, Serbia, Program and the book of abstracts, p 65.
  4. **I. Dinic**, L. Mancic, M.E. Rabanal, O. Milosevic, *Hydrothermal synthesis of optically active rare earth fluorides*, 11<sup>th</sup> Conference for Young Scientists in Ceramics, 21-24 October, 2015. Novi Sad, Serbia, Book of Abstracts, p 58.
  5. **Ivana Z. Dinić**, Lidija Mančić, Maria Eugenia Rabanal, Olivera B. Milošević, *Hydro/solvo-thermal synthesis of surface modified NaYF<sub>4</sub> co-doped Yb<sup>3+</sup>/Er<sup>3+</sup> up-conversion nanoparticles*, Fourteenth Young Researchers' Conference - Materials Science and Engineering, 9-11 December 2015, Belgrade, Serbia, Program and the Book of Abstracts, p 20.
  6. **Ivana Dinic**, Lidija Mancic, Maria Eugenia Rabanal, Olivera Milošević, *Compositional and structural dependence of upconverting RE-fluorides obtained through EDTA assisted hydrothermal synthesis*, AMPT 2015, 14-17 December 2015, Madrid, Spain, Program/Book of Abstracts, p 281.
  7. **Ivana Z. Dinic**, Marko Nikolic, Maria Eugenia Rabanal, Olivera B. Milosevic, Lidija T. Mancic, *Ethylenediaminetetraacetic acid (EDTA) assisted hydro/solvothermal synthesis of up-converting rare earth fluorides*, Fifteenth Young Researchers' Conference – Materials Science and Engineering, 7-9 December 2016, Belgrade, Serbia, Program and the Book of Abstracts, p 39.
  8. **I. Dinic**, A. Djukic-Vukovic, L. Mojovic, M.G. Nikolic, M.D. Rabasovic, A.J. Krmpot, O. Milosevic and L. Mancic, *One-step synthesis of NIR-responsive NaYF<sub>4</sub>:Yb,Er@Chitosane nanoparticles for biomedical application*, The Sixth International School and Conference on Photonics PHOTONICA 2017, 28 August – 1 September 2017, Belgrade Serbia, p 81.
  9. **Ivana Dinic**, Lidija Mancic, Marko G. Nikolic, Katarina Radulovic, Bojan A. Marinkovic, Olivera Milosevic, *Facile synthesis of hydrophilic polymer-capped upconverting NaYF<sub>4</sub>: Yb,Er particles*, Advanced Ceramics and Applications Conference VI: New Frontiers in Multifunctional Material Science and Processing, 18-20 September, 2017, Belgrade, Serbia, Program and the book of abstracts, p 67.
  10. **I. Dinic**, A. Djukic-Vukovic, Lj. Mojovic, A.M.L.M. Costa, D. Trisic, M. Lazarevic, O. Milosevic, L. Mancic, *Synthesis of biocompatible upconverting nanoparticles for non-specific cell labeling*, 12<sup>th</sup> Conference for Young Scientists in Ceramics, CYSC-2017, 18-21 October, 2017, Novi Sad, Serbia, Book of Abstracts, p 95.
  11. **Ivana Dinić**, Aleksandra Đukić-Vuković, Marko Nikolić, Olivera Milošević, Lidija Mančić, *Photo-driven upconversion in NaYF<sub>4</sub>:Yb,Er@chitosane particles for cancer cells bioimaging*, Sixteenth Young Researchers Conference – Materials Science and Engineering, December 6-8 2017, Belgrade, Serbia, Program and the Book of Abstracts, p2.
  12. Marina Vuković, **Ivana Dinić**, Lidija Mančić, Marko Nikolić, Mihailo Rabasović and Olivera Milošević, *Polyacrylic Acid and Chitosan Assisted Solvothermal Synthesis of Up-*

- converting NaYF<sub>4</sub>: Yb,Er Particles*, First International Conference ELMINA 2018, August 27-29, 2018, Belgrade, Serbia, Program and Book of Abstracts, p 195.
13. **Ivana Dinić**, Marina Vuković, Lidija Mančić, Aleksandar Krmpot, Olivera Milošević, *One-pot synthesis of biocompatible NaYF<sub>4</sub>:Yb,Er nanoparticles for cell labeling*, Twentieth annual conference YUCOMAT 2018, September 3-7, 2018, Herceg Novi, Montenegro, Program and the Book of Abstracts, p116.
14. **Ivana Dinić**, Marina Vuković, Nenad Ignjatović, Zoran Stojanović, Srečo Škapin, Ljiljana Veselinović, Lidija Mančić, *Lanthanide doped hydroxyapatite for multimodal imaging*, Advanced Ceramics and Applications Conference VII: New Frontiers in Multifunctional Material Science and Processing, 17-19 September, 2018, Belgrade, Serbia, Program and the book of abstracts, p 71.
15. Marina Vuković, **Ivana Dinić**, Lidija Mančić, Predrag Vulić, Marko Nikolić, Olivera Milošević, *Effects of Gd<sup>3+</sup> co-doping on NaYF<sub>4</sub>:Yb,Er nanoparticles structure*, Advanced Ceramics and Applications Conference VII: New Frontiers in Multifunctional Material Science and Processing, 17-19 September, 2018, Belgrade, Serbia, Program and the book of abstracts, p 72.

### Докторска дисертација - М70

Ивана Динић „Синтеза и карактеризација биокompatибилних оптички активних флуорида ретких земаља“. Технолошко-металуршки факултет 01.02.2019.

Табела 2.1 Број бодова остварених ПРЕ избора у звање научни сарадник

Ознака групе	Укупан бр. радова	Вредност индикатора	Укупна вредност
<b>M<sub>21</sub></b>	<b>3</b>	<b>8+5<sup>#</sup>+4,44<sup>#</sup></b>	<b>17,44</b>
<b>M<sub>22</sub></b>	<b>1</b>	<b>3,125<sup>#</sup></b>	<b>3,125</b>
<b>M<sub>52</sub></b>	<b>1</b>	<b>1,5</b>	<b>1,5</b>
<b>M<sub>34</sub></b>	<b>16</b>	<b>0,5</b>	<b>8,0</b>
<b>M<sub>70</sub></b>	<b>1</b>	<b>6</b>	<b>6,0</b>
<b>Укупно:</b>			<b>36,065</b>

<sup>#</sup> вредност индикатора после нормирања



## 2.2 Радови објављени НАКОН избора у звање научни сарадник

### M21 (8,0): Радови у врхунским међународним часописима

1. **Dinic, I.**, Vukovic, M., Nikolic, M., Tan, Z., Milosevic, O., Mancic, L. Up-converting nanoparticles synthesis using hydroxyl-carboxyl chelating agents: Fluoride source effect, Journal of Chemical Physics, 153 (8) (2020) art. no. 084706. <https://doi.org/10.1063/5.0016559> (ИФ= 3,488; област: 9/37 Physics, Atomic, Molecular & Chemical; бр. хетероцитата: 2)
2. Vukovic, M., **Dinic, I.**, Jardim, P., Marković, S., Veselinović, L., Nikolić, M., Mancic, L. The low-temperature sonochemical synthesis of up-converting  $\beta$  NaYF<sub>4</sub>:Yb,Er mesocrystals, Advanced Powder Technology, 33 (2) (2022) art. no. 103403. <https://doi.org/10.1016/j.apt.2021.103403> (ИФ= 5,0; област: 32/143 Engineering, Chemical; бр. хетероцитата: 5)
3. Tijana Stamenković, Nadežda Radmilović, Marija Prekajski Đorđević, Mihailo Rabasović, **Ivana Dinić**, Miloš Tomić, Vesna Lojpur, Lidija Mančić, Quantum yield and energy transfer in up-conversion SrGd<sub>2</sub>O<sub>4</sub>:Yb, Er nanoparticles obtained via sol-gel assisted combustion, Journal of Luminescence, 253 (2023) 119491. <https://doi.org/10.1016/j.jlumin.2022.119491> (ИФ= 3,6; област: 31/100 Optics; бр. хетероцитата: 4) [нормиран на 6,66 поена, према формули  $K/(1+0,2(n-7))$ ]
4. Lidija Mančić, Lucas A. Almeida, Tamires M. Machado, Jessica Gil-Londoño, **Ivana Dinić**, Miloš Tomić, Smilja Marković, Paula Jardim, Bojan A. Marinkovic, Tetracycline removal through the synergy of catalysis and photocatalysis by novel NaYF<sub>4</sub>:Yb,Tm@TiO<sub>2</sub>-Acetylacetone hybrid core-shell structures, International Journal of Molecular Sciences 24 (2023) 9441. <https://doi.org/10.3390/ijms24119441> (ИФ= 5,6; област: 52/178 Chemistry, Multidisciplinary; бр. хетероцитата: -) [нормиран на 5,71 поена, према формули  $K/(1+0,2(n-7))$ ]
5. Tijana Stamenković, **Ivana Dinić**, Marina Vuković, Nadežda Radmilović, Tanja Barudžija, Miloš Tomić, Lidija Mančić, Vesna Lojpur, Effect of Bi<sup>3+</sup> co-doping on the up-converting and photocatalytic properties of SrGd<sub>2</sub>O<sub>4</sub>:Yb<sup>3+</sup>/Ho<sup>3+</sup> phase, Ceramics International 49 (2023) 37758–37767. <https://doi.org/10.1016/j.ceramint.2023.09.103> (ИФ= 5,2; област: 3/29 Materials Science, Ceramics; бр. хетероцитата: -) [нормиран на 6,66 поена, према формули  $K/(1+0,2(n-7))$ ]

6. **Ivana Dinić**, Marina Vuković, Maria Eugenia Rabanal, Milica Milošević, Marta Bukumira, Nina Tomić, Miloš Tomić, Lidija Mančić, Nenad Ignjatović, Temperature Sensing Properties of Biocompatible Yb/Er-Doped GdF<sub>3</sub> and YF<sub>3</sub> Mesocrystals, Journal of Functional Biomaterials 215 (2024) 6. <https://doi.org/10.3390/jfb15010006>  
(ИФ= 5,9; област: 24/97 Engineering, Biomedical; бр. хетероцитата: 1) [нормиран на 5,71 поена, према формули  $K/(1+0,2(n-7))$ ]

#### **M22 (5,0) Радови у истакнутим међународним часописима**

1. Vukovic, M., Mancic, L., **Dinic, I.**, Vulic, P., Nikolic, M., Tan, Z., Milosevic, O. The gadolinium effect on crystallization behavior and luminescence of  $\beta$ -NaYF<sub>4</sub>:Yb,Er phase, International Journal of Applied Ceramic Technology, 17 (3) (2020) pp. 1445-1452. <https://doi.org/10.1111/ijac.13363>  
(ИФ= 1,968; област: 11/29 Materials Science, Ceramics; бр. хетероцитата: 4)

2. Bruna Carolina Dorm, Mônica Rosas Costa Iemma, Benedito Domingos Neto, Rauany Cristina Lopes Francisco, **Ivana Dinić**, Nenad Ignjatović, Smilja Marković, Marina Vuković, Srečo Škapin, Eliane Trovatti, Lidija Mančić, Synthesis and Biological Properties of Alanine-Grafted Hydroxyapatite Nanoparticles, Life, 13 (2023) 116. <https://doi.org/10.3390/life13010116>  
(ИФ= 3,2; област: 34/92 Biology; бр. хетероцитата: 3) [нормиран на 2,77 поена, према формули  $K/(1+0,2(n-7))$ ]

#### **M23 (3,0) Рад у међународном часопису**

1. Vukovic, M., **Dinic, I.**, Nikolic, M.G., Marinkovic, B.A., Costa, A.M.L.M., Radulovic, K., Milosevic, O., Mancic, L. Effects of different polymers and solvents on crystallization of the NaYF<sub>4</sub>:Yb/Er phase, Bulletin of Materials Science, 43 (1) (2020) art. no. 2. <https://doi.org/10.1007/s12034-019-1975-1>  
(ИФ=1,783; област: 263/334 Materials Science, Multidisciplinary; бр. хетероцитата: 2) [нормиран на 2,5 поена, према формули  $K/(1+0,2(n-7))$ ]

#### **M32 (1,5): Предавање по позиву са међународног скупа штампано у изводу**

1. **Ivana Dinic**, Marina Vukovic, Marko Nikolic, Lidija Mancic, Influence of solvothermal synthesis parameters on NaY<sub>0.65</sub>Gd<sub>0.15</sub>F<sub>4</sub>:Yb<sub>0.18</sub>Er<sub>0.02</sub> UCNPs structural, morphological and optical characteristics, Advanced Ceramics and Applications Conference IX: New Frontiers in Multifunctional Material Science and Processing, 20-21 September, 2021, Belgrade, Serbia, Program and the book of abstracts, p 34, [https://hdl.handle.net/21.15107/rcub\\_dais\\_11904](https://hdl.handle.net/21.15107/rcub_dais_11904)

### M33 (1,0) Саопштења са међународног скупа штампана у целини

1. S. Marković, T.M. Machado, **I. Dinić**, Lj. Veselinović, I. Janković-Častvan, B.A. Marinkovic and L. Mančić, Synthesis of core-shell NaYF<sub>4</sub>:Yb,Tm@TiO<sub>2</sub>-Acac micro- and nano-sized particles for efficient photocatalysis, 15th International Conference on Fundamental and Applied Aspects of Physical Chemistry, 20-24.09.2021, On-line, Proceedings [https://hdl.handle.net/21.15107/rcub\\_dais\\_12989](https://hdl.handle.net/21.15107/rcub_dais_12989)

### M34 (0,5) Саопштења са међународних скупова штампаних у изводу

1. Marina Vukovic, Lidija Mancic, **Ivana Dinic**, Predrag Vulic, Marko Nikolic, Zhenquan Tan, Olivera Milosevic, Influence of Gd<sup>3+</sup> doping on the NaYF<sub>4</sub>:Yb<sup>3+</sup>,Er<sup>3+</sup> structural and up-conversion properties, International Workshop on Woman in Ceramic Science (WoCeram2019) April 7-9, 2019/ Budapest, Hungary, Book of abstracts, p 19-20 <https://dais.sanu.ac.rs/123456789/7000>
2. **Ivana Dinić**, Marina Vuković, Predrag Vulić, Marko Nikolić, Olivera Milošević and Lidija Mančić, Citrate assisted solvothermal synthesis of β-NaYF<sub>4</sub>: Yb, Er up-converting nanoparticles, Twenty-first YUCOMAT 2019 & Eleventh WRTCS 2019, Herceg Novi, September 2 - 6, 2019, p 128 <https://dais.sanu.ac.rs/123456789/6672>
3. Marina Vukovic, **Ivana Dinic**, Lidija Mancic, Predrag Vulic, Marko Nikolic, Olivera Milosevic, The usage of different fluoride sources during solvothermal synthesis of UCNPs in hydroxyl-carboxyl chelated precursor, Advanced Ceramics and Applications Conference VIII: New Frontiers in Multifunctional Material Science and Processing, 23-25 September, 2019, Belgrade, Serbia, Program and the book of abstracts, p 47 <https://dais.sanu.ac.rs/123456789/6978>
4. **Ivana Dinic**, Marina Vukovic, Predrag Vulic, Marko Nikolic, Lidija Mancic and Olivera Milosevic, Effects of citric ion on hexagonal NaYF<sub>4</sub>: Yb/Er phase formation during solvothermal synthesis, 13th Conference for Young Scientist in Ceramics, October 16-19, 2019, Novi Sad, Serbia, Programme and book of abstracts , p 54-55 <http://cherry.chem.bg.ac.rs/handle/123456789/5227>
5. **Ivana Dinić**, Marina Vuković, Predrag Vulić, Marko Nikolić, Olivera Milošević, Lidija Mančić, Effect of Gd<sup>3+</sup> introduction on YF<sub>3</sub>: Yb, Er structural, morphological and optical properties, Eighteenth Young Researchers Conference – Materials Science and Engineering December 4-6, 2019, Belgrade, Serbia, p 33 <https://dais.sanu.ac.rs/123456789/6970>
6. **Ivana Dinic**, Marina Vukovic, Paula Mendes Jardim, Marko Nikolic, and Lidija Mancic, Sonochemical synthesis of up-converting β-NaYF<sub>4</sub>: Yb, Er nanoparticles, Twenty-second YUCOMAT 2021, Herceg Novi, August 30 - September 3, 2021, Program and the Book of Abstracts p 103 <https://dais.sanu.ac.rs/123456789/12076>
7. Marina Vukovic, **Ivana Dinic**, Paula Jardim, Smilja Markovic, Ljiljana Veselinovic, Marko Nikolic, Lidija Mancic, Sonochemical synthesis of optically active fluorides, Advanced

- Ceramics and Applications Conference IX: New Frontiers in Multifunctional Material Science and Processing, 20-21 September, 2021, Belgrade, Serbia, Program and the book of abstracts, p 33 <https://dais.sanu.ac.rs/123456789/11915>
8. Mihailo D. Rabasovic, **Ivana Dinić**, Aleksandra Djukic-Vukovic, Milos Lazarevic, Marko G. Nikolic, Aleksandar J. Krmpot, Lidija Mancic, Nonlinear laser scanning microscopy for imaging of the cells labeled by up-converting NaYF<sub>4</sub>:Yb,Er nanoparticles, Advanced Ceramics and Applications Conference IX: New Frontiers in Multifunctional Material Science and Processing, 20-21 September, 2021, Belgrade, Serbia, Program and the book of abstracts, p 35 <https://dais.sanu.ac.rs/123456789/11912>
  9. S. Marković, T.M. Machado, **I. Dinić**, Lj. Veselinović, I. Janković-Častvan, B.A. Marinkovic and L. Mančić, Synthesis of core-shell NaYF<sub>4</sub>:Yb,Tm@TiO<sub>2</sub>-Acac micro- and nano-sized particles for efficient photocatalysis, 15th International Conference on Fundamental and Applied Aspects of Physical Chemistry, 20-24.09.2021, On-line, Book of Abstracts, 76 <https://dais.sanu.ac.rs/123456789/12360>
  10. **Ivana Dinić**, Marina Vukovic, Marko Nikolic, Lidija Mancic, Solvothermal synthesis of NaGdYF<sub>4</sub>:Yb,Er UCNPs with different structural, morphological and optical properties, 14th Conference for Young Scientists in Ceramics, CYSC 2021 October 20-23, 2021, Novi Sad, Serbia, Programme and book of abstracts , p 121 <https://dais.sanu.ac.rs/123456789/12396>
  11. **Ivana Dinić**, Marina Vukovic, Marko Nikolic, Lidija Mancic, Effect of processing parameters on NaGdYF<sub>4</sub>:Yb,Er UCNPs structural, morphological and optical properties, Nineteenth Young Researchers Conference – Materials Science and Engineering , December 1-3, 2021, Belgrade, Serbia, Program and the Book of Abstracts p 29 <https://dais.sanu.ac.rs/123456789/12276>
  12. Tijana Stamenković, Nadežda Radmilović, Marija Prekajski-Đorđević, **Ivana Dinić**, Lidija Mančić, Vesna Lojpur, Characterization of a new Yb<sup>3+</sup>/Er<sup>3+</sup> doped SrGd<sub>2</sub>O<sub>4</sub> up-conversion nanomaterial obtained via glycine-assisted combustion synthesis, Nineteenth Young Researchers Conference – Materials Science and Engineering , December 1-3, 2021, Belgrade, Serbia, Program and the Book of Abstracts p 33 <https://dais.sanu.ac.rs/123456789/12277>
  13. **Ivana Dinić**, Marina Vuković, Paula Jardim, Lidija Mančić, Synthesis of Up-converting β-NaYF<sub>4</sub>:Yb/Er Nanoparticles by Low-temperature Sonochemical Method, SECOND INTERNATIONAL CONFERENCE ELMINA 2022, August 22nd-26th, 2022, Belgrade, Serbia, Program and Book of Abstracts, p 190-191 <https://dais.sanu.ac.rs/123456789/13639>
  14. Tijana Stamenković, **Ivana Dinić**, Marina Vuković, Vladimir Rajić, Nadežda Radmilović, Lidija Mančić, Vesna Lojpur, Scanning and Transmission Electron Microscopy Investigation of SrGd<sub>2</sub>O<sub>4</sub>: Yb,Tm Up-conversion Luminescent Material, SECOND INTERNATIONAL CONFERENCE ELMINA 2022, August 22nd-26th, 2022, Belgrade, Serbia ,Program and Book of Abstracts, p 192-193 <https://dais.sanu.ac.rs/123456789/14275>

15. Nadežda Radmilović, Tijana Stamenković, Vesna Lojpur, **Ivana Dinić**, Lidija Mančić, Different Up-conversion Oxides Co-doped with  $\text{Er}^{3+}/\text{Yb}^{3+}$  Synthesized at High Temperatures, SECOND INTERNATIONAL CONFERENCE ELMINA 2022, August 22nd-26th, 2022, Belgrade, Serbia, Program and Book of Abstracts, p 194-195 <https://dais.sanu.ac.rs/123456789/14276>
16. **Ivana Dinić**, Marina Vuković, Maria Eugenia Rabanal, Lidija Mancic, Influence of different synthesis methods on morphological and optical properties of the rare earth doped fluorides, Twenty-third Annual Conference YUCOMAT 2022 & Twelfth World Round Table Conference on Sintering XII WRTCS, Herceg Novi, Montenegro, August 29 - September 2, 2022, Program and the Book of Abstracts, p126 <https://dais.sanu.ac.rs/123456789/13595>
17. Marina Vuković, Bruna Carolina Dorm, Eliane Trovatti, Nenad Ignjatović, Smilja Marković, Srečo Škapin, **Ivana Dinić**, Lidija Mančić, Hydroxyapatite grafting with alanine amino acid efficiency of different methods, Advanced Ceramics and Applications Conference X New Frontiers in Multifunctional Material Science and Processing, 26-27th September 2022, Belgrade, Serbia, Program and the book of abstracts, p 58-59 <https://dais.sanu.ac.rs/123456789/13630>
18. **Ivana Dinić**, Tijana Stamenković, Nadežda Radmilović, Marina Vuković, Mihailo D. Rabasović, Vesna Lojpur, Lidija Mančić, Quantum efficiency of up-converting  $\text{SrGd}_2\text{O}_4:\text{Yb},\text{Er}$  nanoparticles, Advanced Ceramics and Applications Conference X New Frontiers in Multifunctional Material Science and Processing, 26-27th September 2022, Belgrade, Serbia, Program and the book of abstracts,p 59 <https://dais.sanu.ac.rs/123456789/13621>
19. Tijana Stamenković, Vesna Lojpur, Nadežda Radmilović, Marina Vuković, **Ivana Dinić**, Lidija Mančić, Optically active  $\text{SrGd}_2\text{O}_4$  phase:  $\text{Yb}^{3+}/\text{Ho}^{3+}$  and  $\text{Yb}^{3+}/\text{Tm}^{3+}$  co-doping, Advanced Ceramics and Applications Conference X New Frontiers in Multifunctional Material Science and Processing, 26-27th September 2022, Belgrade, Serbia, Program and the book of abstracts, p 76 <https://dais.sanu.ac.rs/123456789/13629>
20. Tijana Stamenković, Marjan Randelović, Maria Čebela, Marina Vuković, **Ivana Dinić**, Lidija Mančić, Vesna Lojpur, Characterization and photocatalytic activity of newly synthesized Er and Yb doped  $\text{SrGd}_2\text{O}_4$  nanophosphorus, 7th Conference of The Serbian Society for Ceramic Materials, 7CSCS-2023, June 14-16, 2023 Belgrade, Serbia, Programme ; and the Book of Abstracts p 107 <https://dais.sanu.ac.rs/123456789/14662>
21. Tijana Stamenković, Nadežda Radmilović, **Ivana Dinić**, Marina Vuković, Tanja Barudžija, Maria Čebela, Vesna Lojpur, Enhancement of up-conversion luminescent characteristics of  $\text{Yb}^{3+}/\text{Ho}^{3+}$  co-doped  $\text{Bi}^{3+}$  based  $\text{SrGd}_2\text{O}_4$  nanoparticles, 7th Conference of The Serbian Society for Ceramic Materials, 7CSCS-2023, June 14-16, 2023 Belgrade, Serbia, Programme ; and the Book of Abstracts p 113-114 <https://dais.sanu.ac.rs/123456789/14663>

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23. Nina Tomić, **Ivana Dinić**, Marina Vuković, Marta Bukumira, Mihailo Rabasović, Lidija Mančić, One-Step Synthesis of Biocompatible NaY<sub>0.65</sub>Gd<sub>0.15</sub>F<sub>4</sub>:Yb,Er Upconverting Nanoparticles for In Vitro Cell Imaging, Advanced Ceramics and Applications Conference XI New Frontiers in Multifunctional Material Science and Processing, 18-20th September 2023, Belgrade, Serbia, Program and the book of abstracts, p 70 <https://dais.sanu.ac.rs/123456789/15155>
24. Nebojša Labus, Juraj Szabo, Smilja Marković, Ana Stanković, **Ivana Dinić**, Aleksandar Mitrašinović, Maja Kuzmanović, Kinetic of the ZnTiO<sub>3</sub> to Zn<sub>2</sub>TiO<sub>4</sub> phase transition observed on nano dimensional powder and polycrystalline bulk specimen using thermal analysis - DTA and dilatometer, Advanced Ceramics and Applications Conference XI New Frontiers in Multifunctional Material Science and Processing, 18-20th September 2023, Belgrade, Serbia, Program and the book of abstracts, p 87 <https://dais.sanu.ac.rs/123456789/16169>
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26. Miljana Piljevic, **Ivana Dinić**, Marta Bukumira, Mihailo D. Rabasovic, Aleksandar Krmpot, Milos Lazarevic, Lidija Mancic, Selective in vitro labeling of cancer cells using NaGd<sub>0.8</sub>Yb<sub>0.17</sub>Er<sub>0.03</sub>F<sub>4</sub> nanoparticles, 17th Photonics Workshop (2024), Kopaonik, Serbia, March 10-14, 2024, p 38 <https://dais.sanu.ac.rs/123456789/16596>
27. Rauany Cristina Lopes Francisco, **Ivana Dinić**, Ljiljana Veselinović, Nina Tomić, Marina Vuković, Eliane Trovatti, Lidija Mančić, Development of luminescent bioactive glass for multimodal diagnostic imaging, ExcellMater Conference 2024, Innovative Biomaterials for Novel Medical Devices, April 10-12, 2024, Belgrade, Serbia, Hem. Ind., 2024, 78 (1S), p 36 <https://dais.sanu.ac.rs/123456789/16562>

Табела 2.2. Број бодова остварених **након** избора у звање научни сарадник

Врста резултата	Број	К-вредност резултата	Вредност/вредност након нормирања
M21	6	8	48/40,74
M22	2	5	10/7,77
M23	1	3	3/2,5
M32	1	1,5	1,5/1,5
M33	1	1	1/1
M34	27	0,5	13,5/13,5
Укупно			<b>77,0/67,01</b>

Табела 2.3. Квантитативни услов за избор у вишег научног сарадника

Диференцијални услов – од првог избора у претходно звање до избора у звање	Потребно је да кандидат има најмање XX поена, који треба да припадају следећим категоријама	Неопходно	Остварено
Виши научни сарадник	Укупно	50	<b>77,0/67,01</b>
Обавезни (1)	M10+M20+M31+M32+M33+M41+M42+M90	40	<b>63,5/53,51</b>
Обавезни (2)	M11+M12+M21+M22+M23	30	<b>61/51,01</b>

### 2.3 Преглед пет најзначајнијих публикација

(публикованих након претходног избора у звање)

*Dinic, I., Vukovic, M., Nikolic, M., Tan, Z., Milosevic, O., Mancic, L. Up-converting nanoparticles synthesis using hydroxyl-carboxyl chelating agents: Fluoride source effect (2020) Journal of Chemical Physics, 153 (8), art. no. 084706. DOI: <https://doi.org/10.1063/5.0016559> (ИФ= 3,488; област: 9/37 Physics, Atomic, Molecular & Chemical; бр. хетероцимата: 2)*

У овом раду анализиран је утицај различитих извора флуора (NaF, NH<sub>4</sub>F, NH<sub>4</sub>HF<sub>2</sub>) као и различитих хелационих агенаса (цитратна киселина и натријум цитрат) на процес синтезе “up”-конверторских NaY<sub>0,5</sub>Gd<sub>0,3</sub>F<sub>4</sub>:Yb,Er наночестица. Све синтезе су рађене применом *in situ* солвотермалне синтезе на температури од 200°C у трајању од 6 сати. Рендгенском структурном анализом добијених прахова примећена је промена удела кубне и хексагоналне фазе са променом типа хелационог агенса и извора флуора. Пораст удела хексагоналне (β) NaY<sub>0,5</sub>Gd<sub>0,3</sub>F<sub>4</sub>:Yb,Er фазе је примећен код узорака синтетисаних у присуству натријум цитрата и NH<sub>4</sub>F, услед веће количине NH<sub>4</sub><sup>+</sup> јона генерисаних током

синтезе. Морфолошка анализа синтетисаних прахова је указала на јасну разлику у морфологији честица кубне ( $\alpha$ ) и хексагоналне ( $\beta$ ) фазе. Кубну кристалну структуру карактерише изотропни раст честица сферичног облика, док је код честица хексагоналне фазе примећен настанак мезокристала, као последице селективне адсорпције натријум цитрата на одређене кристалне равни хексагоналних призматичних наночестица. Сви синтетисани прахови након побуде од 980 nm ефикасно емитују светлост у видљивом делу спектра, која се састоји од зелене и црвене емисије. Пораст удела хексагоналне фазе у систему доводи до пораста интензитета емисије, услед повећане квантне ефикасности ове фазе.

*Vukovic, M., Dinic, I., Jardim, P., Marković, S., Veselinović, L., Nikolić, M., Mancic, L., The low-temperature sonochemical synthesis of up-converting  $\beta$  NaYF<sub>4</sub>:Yb,Er mesocrystals (2022) Advanced Powder Technology, 33 (2), art. no. 103403. DOI: <https://doi.org/10.1016/j.apt.2021.103403> (ИФ= 5,0; област: 32/143 Engineering, Chemical; бр. хетероцитата: 5)*

У овом раду је анализиран утицај времена ниско-температурне ултразвучне соникације на процес кристализације хексагоналне  $\beta$ -NaYF<sub>4</sub> фазе. Синтеза је рађена при константној температури од 40 °C при различитим временима ултразвучног третмана (30, 60, 90 и 120 минута). Структурном анализом добијених прахова показано је да се при краћим временима соникације (30, 60 и 90 мин) добијају прахови мултифазног састава: YF<sub>3</sub>,  $\alpha$ -NaYF<sub>4</sub> и  $\beta$ -NaYF<sub>4</sub>, док са даљим продужењем времена синтезе долази до формирања чисте  $\beta$ -NaYF<sub>4</sub> фазе. Скенирајућом електронском микроскопијом показано је да код свих прахова преовлађује присуство 1Д честица, осим код узорка који је синтетисан у трајању од 90 мин у којем доминира присуство геометријски недефинисаних аморфних агрегатних форми. Трансмисиона електронска микроскопија високе резолуције у спреси са селективном електронском дифракцијом на малој површини је показала да наночестице  $\beta$ -NaYF<sub>4</sub> фазе осим уобичајеног раста у [001] правцу, могу да расту преферентно и у правцу који је нормалан на раван (1 -1 2), што као последицу има формирање мезокристала вретенасте морфологије. Након побуде на 980 nm сви узорци показују добар луминесцентни одзив, при чему узорак који је синтетисан у трајању од 120 мин има најинтензивнију луминесценцију (CIE:0.29;0.59).



*Tijana Stamenković, Nadežda Radmilović, Marija Prekajski Đorđević, Mihailo Rabasović, Ivana Dinić, Miloš Tomić, Vesna Lojpur, Lidija Mančić, Quantum yield and energy transfer in up-conversion SrGd<sub>2</sub>O<sub>4</sub>:Yb, Er nanoparticles obtained via sol-gel assisted combustion, Journal of Luminescence 253 (2023) 119491, DOI: <https://doi.org/10.1016/j.jlumin.2022.119491> (ИФ= 3,6; област: 31/100 Optics; бр. хетероцитата: 4)*

У овом раду је по први пут коришћена метода мерења квантне ефикасности емисије која је развијена у ИТН САНУ за оптимизацију концентрације јона итербијума ( $\text{Yb}^{3+}$  =1, 2,5 и 5 %) у систему  $\text{SrGd}_2\text{O}_4:\text{Yb,Er}$ . Синтеза честица рађена је методом сагоревања (температура 500 °С, у трајању од 90 минута) уз претходну припрему раствора сол-гел методом. Као хелациони агенс коришћена је цитратна киселина док је глицин коришћен као гориво. Рендгенском дифракцијом прахова показано је присуство орторомбичне кристалне структуре код свих синтетисаних честица. Анализом морфологије и величине честица показано је да су честице микронских димензија и неправилног облика састављене од међусобно синтерованих сферичних наночестица. Фотолуминесцентна анализа прахова, при побуди ласером таласне дужине од 976 nm, показала је промену “up”-конверзије са различитим уделом јона  $\text{Yb}^{3+}$  у систему. Повећање концентрације јона итербијума (до 5%) доводи до пораста интензитета луминесценције, где уједно долази и до повећања интензитета црвене емисије у односу на зелену. Анализа квантне ефикасности узорка са највећом концентрацијом јона итербијума показала је да укупан квантни принос (QY), као и квантни принос зелене (QY<sub>3</sub>) односно црвене (QY<sub>ц</sub>) емисије, линеарно расте са повећањем густине зрачења до вредности од 180 W/cm<sup>2</sup>, након чега долази до засићења. Константна вредност укупне квантне ефикасности (QY) од 0,0055% добијена је за вредности густине зрачења преко 200 W/cm<sup>2</sup>.

*Lidija Mančić, Lucas A. Almeida, Tamires M. Machado, Jessica Gil-Londoño, Ivana Dinić, Miloš Tomić, Smilja Marković, Paula Jardim, Bojan A. Marinkovic, Tetracycline removal through the synergy of catalysis and photocatalysis by novel NaYF<sub>4</sub>:Yb,Tm@TiO<sub>2</sub>-Acetylacetone hybrid core-shell structures, International Journal of Molecular Sciences 2023, 24, 9441, DOI: <https://doi.org/10.3390/ijms24119441> (ИФ= 5,6; област: 52/178 Chemistry, Multidisciplinary; бр. хетероцитата: -)*

У овом раду представљена је анализа фотокоаталитичке способности нових језгро-омотач структура, где је као омотач коришћен  $\text{TiO}_2$ -Асас ( $\text{TiO}_2$ -ацетилацетонат) који је осетљив на видљиви део спектра (ВИС), док је као језгро коришћена хексагонална  $\text{NaYF}_4:\text{Yb,Tm}$  фаза која омогућава конверзију блиског инфрацрвеног зрачења у видљиви део спектра (НИР-ВИС). Синтеза је рађена из два корака, где је прво синтетисано језгро односно  $\text{NaYF}_4:\text{Yb,Tm}$  фаза хидротермалном синтезом уз присуство ЕДТА као хелационог агенса, на температури од 200°C у трајању од 2 сата. Други корак представља депозицију  $\text{TiO}_2$ -Асас омотача преко  $\text{NaYF}_4:\text{Yb,Tm}$  честица сол-гел методом, након чега је урађен додатни

термички третман у трајању од 2 сата на температури од 300°C. Рендгенском дифракцијом прахова показано је присуство хексагоналне NaYF<sub>4</sub>:Yb,Tm фазе, док је са додатним термичким третманом индукована и кристализација TiO<sub>2</sub> у форми анатаза. Анализа морфологије честица показала је присуство хексагоналних призми NaYF<sub>4</sub>:Yb,Tm фазе, дужине од око 3 μm, са TiO<sub>2</sub>-Acас слојем дебљине од око 10 nm. Након термичког третмана прахова формиран је компактнији слој TiO<sub>2</sub>-Acас, што омогућава побољшани контакт између језгра и љуске. Анализа фотолуминесцентних карактеристика синтетисаних прахова показала је да сви прахови приликом побуде ласером таласне дужине од 976 nm, емитују светлост у плавом и црвеном делу спектра. Примећено је да интензитет луминесценције опада код узорка који су обложени TiO<sub>2</sub>-Acас слојем као и термички тертираних узорка, на основу чега је закључено да TiO<sub>2</sub>-Acас слој апсорбује део видљиве светлости емитоване након екситације NaYF<sub>4</sub>:Yb,Tm језгра. Фотокаталитичка активност синтетисаних прахова испитана је коришћењем процеса деградације тетрациклина. Показано је да услед постојања већег броја контактних тачака између NaYF<sub>4</sub>:Yb,Tm језгра и TiO<sub>2</sub>-Acас љуске TiO<sub>2</sub>-Acас код узорка који је термички третиран, долази и до побољшања фотокаталитичке активности што омогућава око 80% разградње тетрациклина.

*Ivana Dinić , Marina Vuković , Maria Eugenia Rabanal , Milica Milošević , Marta Bukumira, Nina Tomić, Miloš Tomić, Lidija Mančić, Nenad Ignjatović, Temperature Sensing Properties of Biocompatible Yb/Er-Doped GdF<sub>3</sub> and YF<sub>3</sub> Mesocrystals, Journal of Functional Biomaterials 2024, 15, 6. DOI: <https://doi.org/10.3390/jfb15010006> (ИФ= 5,9; област: 24/97 Engineering, Biomedical ; бр. хемпоцитата: 1)*

У овом раду праћена је температурна осетљивост (преко односа интензитета луминесценције) као и цитотоксичност GdF<sub>3</sub>:Yb/Er и YF<sub>3</sub>:Yb/Er честица, са циљем испитивања њихове подобности за мерење температура у физиолошки значајном температурном рангу. Честице су синтетисане солвотермалном синтезом, користећи различите концентрације нитратних прекурсора ретких земаља (2.5 и 5 mmol), у трајању од 2 сата на температури од 200°C. Рендгенска дифракција праха показала је присуство орторомбичне GdF<sub>3</sub>:Yb/Er и YF<sub>3</sub>:Yb/Er фазе у узорцима. Скенирајућом електронском микроскопијом утврђено је да се прахови састоје од наночестица, међусобно повезаних у форме мезокристала, дужине од 300 nm до 1μm. Код узорка који су синтетисани из полазних раствора концентрације 2.5 mmol показан је много виши степен луминесценције, те су ови узорци даље анализирани са аспекта биокомпатибилности и температурне осетљивости. Биокомпатибилност честица постигнута *in situ* применом хитозана током процеса синтезе, је потврђена резултатима МТТ теста и МРЦ-5 и А549 ћелијским линијама (степен виталности ћелија преко 80%). Успешно инкубирање честица у цитоплазми МРЦ-5 и А549 ћелија омогућило је њихову визуализацију при НИР екситацији, а мерење промене интензитета луминесцентног одзива (за два термички повезана електронска

прелаза зелене емисије) је показало да је апсолутна осетљивост од  $0.0042\text{ }^{\circ}\text{C}^{-1}$ , измерена код оба узорка, задовољавајућа са становишта коришћења ових материјала као термичких сензора у физиолошки значајном опсегу температура од 25 до  $50^{\circ}\text{C}$ .

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Република Србија  
МИНИСТАРСТВО ПРОСВЕТЕ,  
НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА  
Комисија за стицање научних звања

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*Инстѿиѿуѿиѿ шѿехничких наука САНУ у Беоѿраду*

Комисија за стицање научних звања на седници одржаној 24.02.2020. године, донела је

**ОДЛУКУ  
О СТИЦАЊУ НАУЧНОГ ЗВАЊА**

**Др Ивана Динић**  
стиче научно звање  
**Научни сарадник**

у области природно-математичких наука - хемија

**О Б Р А З Л О Ж Е Њ Е**

*Инстѿиѿуѿиѿ шѿехничких наука САНУ у Беоѿраду*

утврдио је предлог број 126/1 од 08.04.2019. године на седници Научног већа Института и поднео захтев Комисији за стицање научних звања број 129/1 од 09.04.2019. године за доношење одлуке о испуњености услова за стицање научног звања **Научни сарадник**.

Комисија за стицање научних звања је по претходно прибављеном позитивном мишљењу Матичног научног одбора за хемију на седници одржаној 24.02.2020. године разматрала захтев и утврдила да именована испуњава услове из члана 70. став 4. Закона о научноистраживачкој делатности ("Службени гласник Републике Србије", број 110/05, 50/06 – исправка, 18/10 и 112/15), члана 3. ст. 1. и 3. и члана 40. Правилника о поступку, начину вредновања и квантитативном исказивању научноистраживачких резултата истраживача ("Службени гласник Републике Србије", број 24/16, 21/17 и 38/17) за стицање научног звања **Научни сарадник**, па је одлучила као у изреци ове одлуке.

Доношењем ове одлуке именована стиче сва права која јој на основу ње по закону припадају.

Одлуку доставити подносиоцу захтева, именованој и архиви Министарства просвете, науке и технолошког развоја у Београду.

**ПРЕДСЕДНИК КОМИСИЈЕ**

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**Извештај о цитираности радова др Иване Динић**

на основу база података Web of Science и Scopus, 1. јуна 2024. године

Укупно цитата: 95

Укупно хетероцитата: 69

H-индекс = 5

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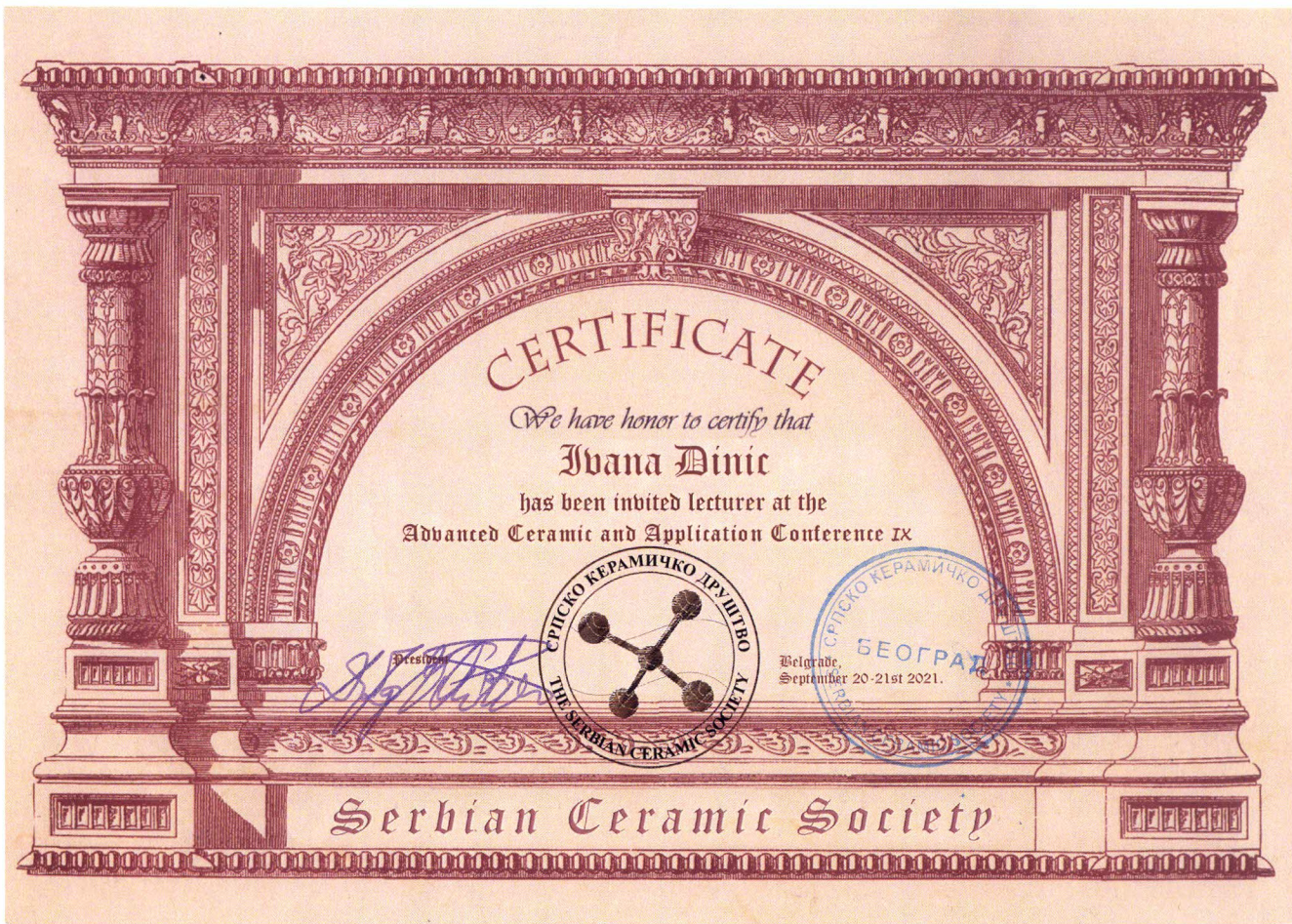
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INV

## Electronic Properties of BZT Nano-Ceramic Grades at Low Frequency Region

Darko Kosanović<sup>1</sup>, Viktor Pucky<sup>2</sup>, Stanko O. Aleksić<sup>3</sup>, Vladimir B. Pavlović<sup>4</sup> Vladimir A. Blagojević<sup>1</sup>

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Barium zirconium titanate ceramics were prepared using solid state reactions of BaCO<sub>3</sub>, TiO<sub>2</sub> and ZrO<sub>2</sub> at elevated temperatures. The prepared BZT was mechanically activated in the planetary ball mill from 0-120 min to achieve different powder grades from micro- to nano-sized particles. After the powder characterization by XRD and SEM the samples were pressed in disc shape and sintered at 1100 and 1200 °C in the air. The sintered samples were characterized by SEM. After that the silver epoxy electrodes were deposited on sintered disc samples. The disc samples capacitance and resistivity were measured in the low frequency region from 1 Hz to 200 kHz using a low frequency impedance analyzer. Sintering temperatures and powder grades were used as parameters. Finally, specific resistance  $\rho$ , dielectric permittivity ( $\epsilon' + j\epsilon''$ ) and  $\text{tg}\delta$  were obtained from the impedance measurements. The trends in electronic properties were analyzed: the relaxation effect of the space charge (inter-granular electric charges) vs. sintering temperature and ceramic grades. These show that mechanical activation has a significant effect on electrical properties, resulting in generally improved overall performance.

INV

## Influence of solvothermal synthesis parameters on NaY<sub>0.65</sub>Gd<sub>0.15</sub>F<sub>4</sub>:Yb<sub>0.18</sub>Er<sub>0.02</sub> UCNPs structural, morphological and optical characteristics

Ivana Dinic<sup>1</sup>, Marina Vukovic<sup>2</sup>, Marko Nikolic<sup>3</sup> and Lidija Mancic<sup>1</sup>

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<sup>3</sup>Photonic Center, Institute of Physics Belgrade, University of Belgrade, Serbia

Monosized Up-Converting NanoParticles (UCNPs) with biocompatible surface and unique optical properties attract a great interest as new cell markers or drug delivery systems. The uppermost UC efficiency of  $\beta$ -NaYF<sub>4</sub>:Yb/Er phase is due to its hexagonal *P63/m* space group

arrangement which could accommodate higher concentration of dopants at shorter distance. Stabilization of this phase in nanoparticles is usually achieved through thermal decomposition of organic precursors in the presence of solvents with a high boiling point. Here, for the same purpose, we used gadolinium co-doping during chitosan assisted solvothermal processing of inorganic precursor salts. Precursor concentration, solvent type, and synthesis time were varied in order to determine their influence on the  $\beta$ - $\text{NaY}_{0.65}\text{Gd}_{0.15}\text{F}_4:\text{Yb}_{0.18}\text{Er}_{0.02}$  phase crystallization. The XRPD analysis showed that lower surplus of fluoride ions during synthesis leads to formation of  $\text{Y}_{0.65}\text{Gd}_{0.15}\text{F}_4:\text{Yb}_{0.18}\text{Er}_{0.02}$  orthorhombic phase, while the increase of fluoride content or prolongation of the processing time enhances formation  $\alpha$ - $\text{NaY}_{0.65}\text{Gd}_{0.15}\text{F}_4:\text{Yb}_{0.18}\text{Er}_{0.18}$  phase. Along with it, the changes of UCNPs morphology from spindle to spherical shape is detected. All samples emit intense green emission due to the ( $^2\text{H}_{11/2}$ ,  $^4\text{S}_{3/2}$ )  $\rightarrow$   $^4\text{I}_{15/2}$  electronic transitions, after been excited with infrared light ( $\lambda=978$  nm).

## INV

### **Nonlinear laser scanning microscopy for imaging of the cells labeled by up-converting $\text{NaYF}_4:\text{Yb,Er}$ nanoparticles**

Mihailo D. Rabasovic<sup>1</sup>, Ivana Dinic<sup>2</sup>, Aleksandra Djukic-Vukovic<sup>3</sup>, Milos Lazarevic<sup>4</sup>, Marko G. Nikolic<sup>1</sup>, Aleksandar J. Krmpot<sup>1</sup>, Lidija Mancic<sup>2</sup>

<sup>1</sup>Photonic Center, Institute of Physics Belgrade, University of Belgrade, Zemun, Belgrade, Serbia

<sup>2</sup>Institute of Technical Sciences of the Serbian Academy of Sciences and Arts, Belgrade, Serbia

<sup>3</sup>Department of Biochemical Engineering and Biotechnology, Faculty of Technology and Metallurgy, University of Belgrade, Serbia

<sup>4</sup>Institute of Human Genetics, School of Dental Medicine, University of Belgrade, Serbia

The Nonlinear Laser Scanning Microscopy (NLSM) contributes to the cell labeling through addressing two main issues: photobleaching and phototoxicity. Moreover, an increase of the penetration depth and a reduction of background autofluorescence are achieved. We have used a multidisciplinary approach combining expertise in material science, nanoparticles synthesis and characterization, cancer cell and tissue labeling, and high resolution imaging, in order to accomplish *in vitro* imaging of the cancer cells. We have imaged the oral squamous carcinoma cells and human gingival cells. We have demonstrated that we are able to take high contrast images. We have shown position of the nanoparticles in cells, through co-localization of the cell auto-fluorescence and the nanoparticles up-conversion. We plan to improve our abilities through further optimization of the up-converting nanoparticles (smaller and brighter particles) and microscopy technique.

Subject **Thank you for the review of zaac.202100241R1**  
From ZAAC <em@editorialmanager.com>  
Sender <em.zaac.0.75d6a4.efcb870f@editorialmanager.com>  
To Ivana Dinic <ivana.dinic@itn.sanu.ac.rs>  
Reply-To ZAAC <zaac-office@wiley-vch.de>  
Date 2021-09-07 14:29



Ref.: Ms. No. zaac.202100241R1  
The nature of the interaction of RE(NO<sub>3</sub>)<sub>3</sub> (yttrium subgroup) with HF or NH<sub>4</sub>F  
Zeitschrift für anorganische und allgemeine Chemie

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Yours sincerely,

Professor Christian Limberg

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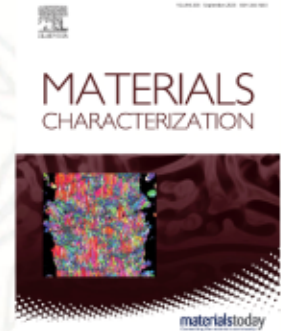
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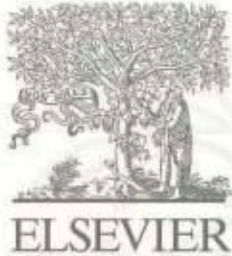
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20-Mar-2023

Journal: ACS Omega  
Manuscript ID : ao-2023-00892t  
Title : "Caveat Emptor: Commercialized Manganese Oxide Nanoparticles Exhibit Unintended Properties"  
Author(s): Martinez de la Torre, Celia; Freshwater, Kasey; Looney-Sanders, Mara; Bennewitz, Margaret

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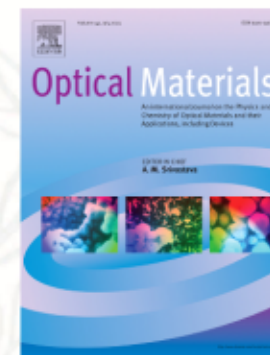
Sincerely,

Dr. Deqing Zhang  
Coeditor  
ACS Omega  
Phone: +86-10-62639355  
Fax: (202) 559-0879  
Email: [Zhang-office@omega.acs.org](mailto:Zhang-office@omega.acs.org)

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COST Action CA20130,  
European MIC Network – New paths for science, sustainability and standards (Euro-MIC)






Action Status: Running

### ACTION CHAIR / VICE-CHAIR / GRANT HOLDER

Action Chair	Dr Andrea Koerdt
Action Vice-Chair	Dr Torben Lund Skovhus
Current GH Scientific Representative	Dr Andrea Koerdt
Current GH Manager	Dr Michelle Unger

### WORKING GROUPS

Please verify/update the Working Group Leader name (by linking this role to the eCOST profile of the MC Member that is the Leader of this Working Group).

Number	Title	Leader	No. participants	Options
1	Intersectoral bridging	Dr Judit Knisz	118	
2	Diagnostic technology development	Dr Annie Biwen An Stepec	137	
3	Development of innovative monitoring technologies	Prof Geert Potters	159	
4	Strategize 'green' mitigation methods	Dr Elisabete Silva	141	
5	Achieving standardization	Dr Julian Wharton	69	

### SCIENCE COMMUNICATION COORDINATOR

Science Communication Coordinator	Assigned By	Start date	End date	Status	Options
Dr Andrea Koerdt	Mr Matthew Borg	2023-12-05	2023-12-05	Expired	
Mr Herman de Vries	Dr Andrea Koerdt	2021-11-08	2023-12-05	Expired	

### GRANT AWARDING COORDINATOR

Grant Awarding Coordinator	Assigned By	Start date	End date	Status	Options
<input checked="" type="checkbox"/> Dr Maria Salta (Current)	Dr Andrea Koerdt	2022-01-26		Assigned	
Ms Maria Iasmina Moza	Dr Andrea Koerdt	2021-11-10	2021-12-17	Expired	
Dr Maria Salta	Dr Andrea Koerdt	2021-11-10	2021-11-10	Expired	

### OTHER LEADERSHIP POSITIONS

Short Term Scientific Mission Coordinator ⓘ	Assigned By	Start date	End date	Status	Options
Prof Edna Yamasaki Patrikiou	Dr Andrea Koerdt	2023-10-07		Assigned	
Dr José Miguel Palomo Carmona	Dr Andrea Koerdt	2021-10-28	2023-10-07	Expired ⓘ	
ITC Conference Grants Coordinator	Assigned By	Start date	End date	Status	Options
Dr Ivana Dinic	Dr Andrea Koerdt	2021-10-28		Assigned	

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### User details

**Dr Ivana Dinic**  
**Birth year:** 1987  
**Orcid:** 0000-0002-0909-8230  
**Emails:** [Q](#)  
◦ [ivana.dinic@itn.sanu.ac.rs](mailto:ivana.dinic@itn.sanu.ac.rs)

### Affiliations

1. Institute of Technical Sciences of SASA [Q](#)

### Research Areas

1. Science Field: **Materials engineering**  
Research Area: **Biomaterials, metals, ceramics, polymers, composites** (Confidence Level: **core**)

### Educational Details

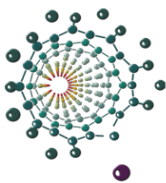
1. Degree level: **Doctoral level or equivalent / Mechanical engineering / 2019**

### Positions

- 1. WG Member CA20130 [WG3] (Status: Active since 08/11/2021 )
- 2. ITC Conference Grants Coordinator [CA20130](#) (Status: Active since 28/10/2021 )

### Participation in networking tools

• 6 invitations [Q](#)



Универзитет у Београду  
Факултет за физичку хемију

**Мастер рад**  
**Фото(електро)каталитичка активност**  
**композитних честица  $\text{ZnO}@\text{BaTi}_{1-x}\text{Sn}_x$**   
**(BTS,  $x=0, 0.05$  и  $0.10$ )**

Ментор: др Ивана Стојковић Симатовић  
др Ана Станковић

Студент: Иван Супић  
бр. индекса: 2020/0206

Београд  
2021.

Захваљујем се на сарадњи и помоћи менторима, в. професору др Ивани Стојковић Симатовић и др Ани Станковић, научном сараднику ИТН САНУ.

Захваљујем се и др Смиљи Марковић, научном саветнику ИТН САНУ и мр Катарини Алексић, истраживачу приправнику ИТН САНУ на сарадњи и помоћи при синтези и карактеризацији материјала за овај рад.

Захваљујем се др Ивани Динић из Института техничких наука САНУ и др Марини Вуковић из Иновационог центра Хемијског факултета на оптичкој карактеризацији материјала (ДРС).



На основу свега изложеног и у складу са важећим Правилником о начину стицања истраживачких звања у Институту за нуклеарне науке „Винча“, Институту од Националног значаја за Републику Србију, Универзитета у Београду (број: 011- 14/2020-000 од 21.09.2020), Комисија предлаже Научном већу Института за нуклеарне науке „Винча“ да подржи избор **Тијане Стаменковић**, мастер хемичара и студента докторских студија на Природно-математичком факултету Универзитета у Нишу, у истраживачко звање истраживач сарадник.

Београд, 02.12.2022.

Чланови комисије:

*Vesna Lojpur*

др Весна Лојпур, виши научни сарадник  
Институт за нуклеарне науке „Винча“  
Институт од националног значаја за Републику Србију  
Универзитет у Београду

*Radmila*

др Надежда Радмиловић, виши научни сарадник  
Институт за нуклеарне науке „Винча“  
Институт од националног значаја за Републику Србију  
Универзитет у Београду

*Ivana Dinić*

др Ивана Динић, научни сарадник  
Институт техничких наука САНУ



UNIVERZITET U NIŠU  
PRIRODNO-MATEMATIČKI FAKULTET



**Tijana T. Stamenković**

**SINTEZA, KARAKTERIZACIJA I  
FOTOKATALITIČKA PRIMENA  
NANOČESTICA STRONCIJUM-  
GADOLINIJUM-OKSIDA DOPIRANIH  
JONIMA RETKIH ZEMALJA**

DOKTORSKA DISERTACIJA

Niš, 2024.

**MENTOR:**

**dr Marjan Randelović**

Redovni profesor Prirodno-matematičkog fakulteta, Departmana za hemiju, Univerziteta u  
Nišu

**ČLANOVI KOMISIJE:**

**Predsednik: dr Vesna Lojpur**

Viši naučni saradnik Instituta za nuklearne nauke „Vinča“, Instituta od nacionalnog značaja  
za Republiku Srbiju, Univerziteta u Beogradu

**Član: dr Aleksandra Zarubica**

Redovni profesor Prirodno-matematičkog fakulteta, Departmana za hemiju, Univerziteta u  
Nišu

**Član: dr Aleksandar Bojić**

Redovni profesor Prirodno-matematičkog fakulteta, Departmana za hemiju, Univerziteta u  
Nišu

**Član: dr Ivana Dinić**

Naučni saradnik Instituta tehničkih nauka SANU, Univerziteta u Beogradu

Datum odbrane:

*Ova doktorska disertacija rađena je pod rukovodstvom dr Vesne Lojpur, višeg naučnog saradnika Instituta za nuklearne nauke „Vinča“, Instituta od nacionalnog značaja za republiku Srbiju, Univerziteta u Beogradu, i prof. dr Marjana Randelovića, redovnog profesora Prirodno-matematičkog fakulteta, Univerziteta u Nišu.*

*Zahvaljujem se prof. dr Marjanu Randeloviću, koji je prihvatio da bude mentor ove disertacije. Hvala na izdvojenom vremenu, zalaganju, stručnoj pomoći i podršci pruženoj tokom rada i pisanja disertacije.*

*Najiskrenije se zahvaljujem dr Vesni Lojpur, koja mi je u „Vinči“ bila prijatelj i mentor od prvog dana. Za sve savete i sugestije, pitanja i odgovore, konstruktivne kritike i komentare, u svakom trenutku i svakoj fazi rada, uvek je bila tu, spremna da pomogne i pruži svoju bezuslovnu podršku. HVALA!*

*Najsrdanije se zahvaljujem dr Ivani Dinić, prof. dr Aleksandri Zarubici i prof. dr Aleksandru Bojiću, na izdvojenom vremenu, korisnim stručnim savetima i sugestijama koji su značajno doprineli kvalitetu ove disertacije.*

*Kako je najveći deo karakterizacije materijala, kao i ispitivanja fotokatalitičke aktivnosti rađen u Laboratoriji za atomsku fiziku u INN „Vinča“, veliku zahvalnost dugujem kolegama iz LAF-a koji su nesebično uložili svoje vreme i trud da pomognu, i učinili taj deo posla interesantnijim. Dr Dejanu Pjeviću hvala za pomoć oko UV-VIS-a, i veliku pomoć oko izvođenja eksperimenata fotokatalize. Svojim stručnim savetima i duhovitim komentarima, učinio je da sati provedeni u laboratoriji budu neverovatno zanimljivi i uzbudljiviji. Dr Mirjani Novaković i dr Nadeždi Radmilović najiskrenije hvala što su me uvele u tajanstveni svet transmisiona elektronske mikroskopije i pokazale neodoljive čari našeg TEM-a. Dr Maji Popović i dr Nenadu Bundaleskom hvala na pomoći oko rada na XPS-u, i lekcijama koje su me još više zainteresovale za ovu metodu. Dr Vladimiru Rajiću i dr Jeleni Potočnik hvala za pomoć oko SEM-a, bez njih snimanja ne bi bila ni upola tako zabavna.*

*Zahvaljujem se najsrdačnije dr Nadici Abazović, na ogromnoj pomoći i stručnim savetima prilikom ispitivanja fotokatalitičke aktivnosti, ali i na prijateljskim savetima i konstantnim pozitivnim vibracijama, koje su boravak u laboratoriji učinile neuporedivo veselijim.*

*Najiskrenije se zahvaljujem dr Lidiji Mančić, dr Ivani Dinić, dr Marini Vuković i dr Milošu Tomiću na velikoj pomoći tokom postavke i izvođenja luminescentnih merenja, tumačenja rezultata i pisanja radova, kao i na dobrom druženju za koje su uvek bili raspoloženi.*

На основу члана 40. Закона о високом образовању („Службени гласник РС“ број 88/2017, 73/2018, 27/2018 -др. закон, 67/2019, 6/2020-др. Закони, 11/2021 – аутентично тумачење, 67/2021 и 67/2021 – др. закон), члана 50. став 1. тачка 7. Статута Универзитета у Нишу („Гласник Универзитета у Нишу“ број 8/2017, 6/2018, 7/2018, 2/2019, 3/2019, 4/2019, 3/2021 и 1/2024) и на основу члана 22. став 2. и 3. Правилника о поступку припреме и условима за одбрану докторске дисертације („Гласник Универзитета у Нишу“ број 4/2018, 5/2018, 3/2020, 2/2021 и 3/3023), Научно-стручно веће за природно-математичке науке, на седници одржаној 27.05.2024. године, донело је

### **О Д Л У К У** **о именовану Комисије за оцену и одбрану докторске дисертације**

#### **Члан 1.**

Именује се Комисија за оцену и одбрану докторске дисертације на Природно-математичком факултету у Нишу кандидата Тијане Стаменковић, мастер хемичара, под „Синтеза, карактеризација и фотокаталитичка примена наночестица стронцијум-гадолинијум-оксида допираних јонима ретких земаља“, назив теме на енглеском језику „Synthesis, characterization and photocatalytic application of strontium gadolinium oxide nanoparticles doped with rare earth ions“, у следећем саставу:

1. др Весна Лојпур, виши научни сарадник  
Института за нуклеарне науке „Винча“, Универзитета у Београду,  
председник  
(научна област: Наука о материјалима; ужа научна област: Хемија материјала);
2. др Александра Зарубица, редовни професор  
Природно-математичког факултета у Нишу, члан  
(научна област: Хемија; ужа научна област: Примењена и индустријска хемија);
3. др Александар Бојић, редовни професор  
Природно-математичког факултета у Нишу, члан  
(научна област: Хемија; ужа научна област: Примењена и индустријска хемија);
4. др Ивана Динић, научни сарадник  
Института техничких наука САНУ Универзитета у Београду, члан  
(научна област: Наука о материјалима; ужа научна област: Хемија материјала);
5. др Марјан Ранђеловић, редовни професор  
Природно-математичког факултета у Нишу, члан  
(научна област: Хемија; ужа научна област: Примењена и индустријска хемија).

#### **Члан 2.**

Задатак Комисије је да сачини извештај о оцени докторске дисертације Тијане Стаменковић, са предлогом за њену одбрану.

Комисија је дужна да у извештају о урађеној докторској дисертацији нарочито анализира самосталан научни рад кандидата и допринос науци докторске дисертације.

Комисија свој извештај подноси на обрасцу Д4, који је саставни део Правилника о поступку припреме и условима за одбрану докторске дисертације.

**Члан 3.**

Комисија ће Извештај из члана 2. ове одлуке доставити Природно-математичком факултету у Нишу у року од 45 дана од дана пријема одлуке о именовану.

**Члан 4.**

Одлуку доставити именованим члановима Комисије, Природно-математичком факултету у Нишу и архиви Универзитета у Нишу.

**НСВ број 8/17-01-005/24-037  
У Нишу, 27.05.2024. године**

**ПРЕДСЕДНИК НАУЧНО-СТРУЧНОГ ВЕЋА  
ЗА ПРИРОДНО-МАТЕМАТИЧКЕ НАУКЕ**



**Проф. др Мирослав Ђирић**

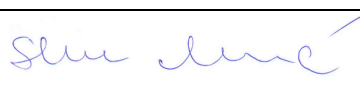


## Универзитет у Београду – Факултет за физичку хемију

### ИЗВЕШТАЈ О ИЗРАДИ СТРУЧНЕ ПРАКСЕ

ИМЕ И ПРЕЗИМЕ СТУДЕНТА:	Данијела Текић	
БРОЈ ИНДЕКСА:	210/2021	
ИНСТИТУЦИЈА У КОЈОЈ ЈЕ РЕАЛИЗОВАНА СТРУЧНА ПРАКСА:	Институт техничких наука САНУ	
СТУДЕНТ ЈЕ У РАДНОМ ОДНОСУ У ИНСТИТУЦИЈИ	ДА <sup>1</sup>	НЕ
УКОЛИКО ЈЕ ОДГОВОР НЕ ПОПУНИТИ ПОЉА У НАСТАВКУ		
БРОЈ УГОВОРА О РЕАЛИЗАЦИЈИ СТРУЧНЕ ПРАКСЕ:	193/2 od 27.04.2022.	
ОДГОВОРНО ЛИЦЕ/МЕНТОР:	др Смиља Марковић	
ПЕРИОД РЕАЛИЗАЦИЈЕ СТРУЧНЕ ПРАКСЕ:	9-13. мај 2022. год.	

#### Попуњава институција у којој је реализована стручна пракса

ОПИС РАДА У ТОКУ ИЗРАДЕ СТРУЧНЕ ПРАКСЕ / ОПИС ПОСЛОВА ЗАПОСЛЕНОГ СТУДЕНТА	
<p>У току свог рада у ИТН САНУ, мастер студент Данијела Текић била је упозната са различитим методама процесирања и карактеризације материјала, којима се ми у ИТН САНУ бавимо.</p> <p>У оквиру стручне праксе у ИТН САНУ Данијела Текић је учествовала у:</p> <ol style="list-style-type: none"> <li>1. синтези наноструктурног цинк оксида поступком микроталасног процесирања (са др Аном Станковић)</li> <li>2. ФТИР карактеризацији (са др Сузаном Филиповић)</li> <li>3. ДСЦ карактеризацији (са др Мајом Јовић)</li> <li>4. одређивању расподеле величина честица (са др Зораном Стојановићем)</li> <li>5. ТГ/ДТА карактеризацији (са др Ненадом Филиповићем)</li> <li>6. дилатометријској карактеризацији (са др Небојшом Лабусом) и</li> <li>7. одређивању оптичких карактеристика материјала методама фотолуминисцентне и УВ Вис ДРС спектроскопије (са др Иваном Динић)</li> </ol>	
ДАТУМ: 23. мај 2022.	 ПОТПИС ОДГОВОРНОГ ЛИЦА/МЕНТОРА

#### Попуњава Факултет за физичку хемију

<p>На основу достављеног извештаја о изради стручне праксе констатује се да је студент _____, бр. индекса _____, испунио обавезе предвиђене планом и програмом мастер академских студија физичке хемије у обиму од 3 ЕСПБ.</p>	
ДАТУМ:	Надлежни продекан

<sup>1</sup> Уколико је студент у радном односу потребно је доставити и потврду од стране послодавца.

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

**Serbian Ceramic Society  
Institute of Technical Science 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, 18-20. September 2017**



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

**Publisher:**

Serbian Ceramic Society

**Editors:**

Prof.dr Vojislav Mitić

Dr Lidija Mančić

Dr Nina Obradović

**Technical Editors:**

Dr Lidija Mančić

Dr Nina Obradović

Ivana Dinić

**Printing:**

Serbian Ceramic Society

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SRPSKO keramičko društvo. Conference Advanced Ceramics and Application : New Frontiers in Multifunctional Material Science and Processing (6 ; 2017 ; Beograd)

Program ; and the Book of Abstracts / Serbian Ceramic Society Conference Advanced Ceramics and Application VI : New Frontiers in Multifunctional Material Science and Processing, Serbia, Belgrade, 18-20. September 2017. ; [organized by] Serbian Ceramic Society ... [et al.] ; [editors Vojislav Mitić, Lidija Mančić, Nina Obradović]. - Belgrade : Serbian Ceramic Society, 2017 (Belgrade : Serbian Ceramic Society). - 86 str. : ilustr. ; 30 cm

Tiraž 200.

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Наноматеријали - Апстракти  
COBISS.SR-ID 244577036

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

*/ Serbian Ceramic Society / Institute of Technical Science of SASA /  
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**PROGRAM AND THE BOOK OF ABSTRACTS**

**Serbian Academy of Sciences and Arts, Knez Mihailova 35**  
**Serbia, Belgrade, 17-19. September 2018**

**Book title:**

Serbian Ceramic Society Conference -  
ADVANCED CERAMICS AND APPLICATION VII  
Program and the Book of Abstracts

**Publisher:**

Serbian Ceramic Society, Belgrade, 2018.

**Editors:**

Prof. dr Vojislav Mitić  
Dr Lidija Mančić  
Dr Nina Obradović

**Technical Editors:**

Ivana Dinić  
Marina Vuković

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Conference Advanced Ceramics and Application VII : New Frontiers in Multifunctional Material Science and Processing, Serbia, Belgrade, 17-19. September 2018 ; [organized by] Serbian Ceramic Society ... [et al.] ; [editors Vojislav Mitić, Lidija Mančić, Nina Obradović]. - Belgrade : Serbian Ceramic Society, 2018 (Belgrade : Serbian Ceramic Society). - 106 str. : ilustr. ; 30 cm

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COBISS.SR-ID 267569676

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## Acknowledgements:

The Conference Organizers are grateful to the  
**Ministry of Education and Science of the Republic of Serbia**  
for financial support, as well as to the  
Serbian Academy of Sciences and Arts,  
European Academy of Sciences and Arts,  
American Ceramics Society,  
Institute of Technical Sciences of SASA,  
Archeological Institute of SASA,  
Institute of Physics UB,  
Vinča Institute of Nuclear Sciences - Laboratory of Physics (010),  
Electrical Engineering Institute Nikola Tesla  
High School-Academy for Arts and Conservation.

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

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**Institute of Chemistry Technology and Metallurgy**  
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**PROGRAM AND THE BOOK OF ABSTRACTS**

**Serbian Academy of Sciences and Arts, Knez Mihailova 35**  
**Serbia, Belgrade, 23-25. September 2019**

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VIII Program and the Book of Abstracts

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Prof.dr Vojislav Mitić

Dr Lidija Mančić

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**Technical Editors:**

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Dr Marina Vuković

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Multifunctional Material Science and Processing (8 ; 2019 ; Beograd)

Program ; and the Book of abstracts / Serbian Ceramic Society Conference Advanced Ceramics  
and Application VIII : New Frontiers in Multifunctional Material Science and Processing, Serbia,  
Belgrade, 23-25. September 2019. ; [organized by] Serbian Ceramic Society ... [etc.] ; [editors  
Vojislav Mitić, Lidija Mančić, Nina Obradović]. - Belgrade : Serbian Ceramic Society, 2019  
(Belgrade : Serbian Ceramic Society). - 98 str. : ilustr. ; 30 cm

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

COBISS.SR-ID 279041804

## Conference Topics

- Basic Ceramic Science & Sintering
- Nano-, Opto- & Bio-ceramics
- Modeling & Simulation
- Glass & Electro Ceramics
- Electrochemistry & Catalysis
- Magnetic & Refractory Ceramic
- Renewable Energy, Composites & Amorphous Ceramics
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**New Frontiers in Multifunctional Material Science and Processing**

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**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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Dr Nina Obradović

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Marina Vuković

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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

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COBISS.SR-ID 45804553

## Conference Topics

- Basic Ceramic Science & Sintering
- Nano-, Opto- & Bio-ceramics
- Modeling & Simulation
- Glass and Electro Ceramics
- Electrochemistry & Catalysis
- Refractory, Cements & Clays
- Renewable Energy & Composites
- Amorphous & Magnetic Ceramics
- Heritage, Art & Design

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**PROGRAM AND THE BOOK OF ABSTRACTS**

**Serbian Academy of Sciences and Arts, Knez Mihailova 35**  
**Serbia, Belgrade, 26-27<sup>th</sup> September 2022.**

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**Publisher:**

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**Editors:**

Dr. Nina Obradović

Dr. Lidija Mančić

**Technical Editors:**

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Dr. Adriana Peleš Tadić

Dr. Jelena Živojinović

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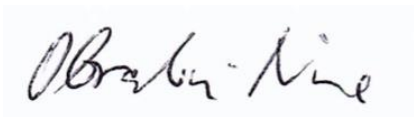
Program ; and the Book of abstracts / Serbian Ceramic Society Conference Advanced Ceramics and Application X New Frontiers in Multifunctional Material Science and Processing, Serbia, Belgrade, 26-27. September 2022. ; [editors Nina Obradović, Lidija Mančić]. - Belgrade : Serbian Ceramic Society, 2022 (Belgrade : Serbian Ceramic Society). - 96 str. : ilustr. ; 30 cm

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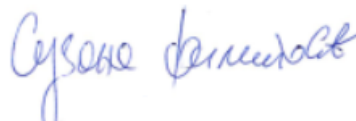
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COBISS.SR-ID 74827529



Dr. Nina Obradović  
*President of the Serbian Ceramic Society*



Dr. Suzana Filipović  
*President of the General Assembly of the  
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- Nano-, Opto- & Bio-ceramics
- Modeling & Simulation
- Glass and Electro Ceramics
- Electrochemistry & Catalysis
- Refractory, Cements & Clays
- Renewable Energy & Composites
- Amorphous & Magnetic Ceramics
- Heritage, Art & Design

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**SIXTEENTH YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

December 6-8, 2017, Belgrade, Serbia

**Program and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

November 2017, Belgrade, Serbia

Book title:

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**SEVENTEENTH YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

**December 5-7, 2018, Belgrade, Serbia**

**Program and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

**November 2018, Belgrade, Serbia**

**Book title:**

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Materials Sciences and Engineering, December 5-7, 2018, Belgrade, Serbia ; [organized by]  
Materials Research Society of Serbia & Institute of Technical Sciences of SASA ; [editor  
Smilja Marković]. -Belgrade : Institute of Technical Sciences of SASA, 2018 (Beograd :  
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**EIGHTEENTH YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

December 4-6, 2019, Belgrade, Serbia

**Program and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

November 2019, Belgrade, Serbia

Book title:

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**NINETEENTH YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

December 1-3, 2021, Belgrade, Serbia

**Program and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

2021



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**TWENTIETH YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

November 30 – December 2, 2022, Belgrade, Serbia

**Programme and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

2022

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**TWENTY-FIRST YOUNG RESEARCHERS' CONFERENCE  
MATERIALS SCIENCE AND ENGINEERING**

November 29 – December 1, 2023, Belgrade, Serbia

**Program and the Book of Abstracts**

**Materials Research Society of Serbia  
&  
Institute of Technical Sciences of SASA**

2023

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COBISS.SR-ID 130053385

## Aim of the Conference

Main aim of the conference is to enable young researchers (post-graduate, master or doctoral student, or a PhD holder younger than 35) working in the field of materials science and engineering, to meet their colleagues and exchange experiences about their research.

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Environmental science  
Materials for high-technology applications  
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New synthesis and processing methods  
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**TWENTIETH ANNUAL CONFERENCE**

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Hunguest Hotel Sun Resort Herceg Novi, Montenegro,  
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**Ivana Dini** Veljko oki , Sonja Jovanovi , Zoran Jovanovi , Petar Lauševi , Željko Mravik, Milica Ševkuši

### **HISTORY:**

Materials science and engineering incorporate acquiring of knowledge on synthesis and processing of materials, their composition and structure, properties and behaviour, functions and potentialities as well as application of that knowledge to various final products. Economic prosperity, life quality, and healthy environment are tightly connected with the improvements in the existing and the development of new materials and processing technologies. These improvements and development can contribute greatly to the national priorities: energy saving, environment and health protection, information and communication, infrastructure, transportation, etc.

The First Conference on materials science and engineering, including physics, physical chemistry, condensed matter chemistry, and technology in general, was held in September 1995, in Herceg Novi. An initiative to establish Yugoslav Materials Research Society was born at the conference and, similar to other MR societies in the world, the programme was made and objectives

Twenty-first Annual Conference  
**YUCOMAT 2019**  
&  
Eleventh World Round Table Conference  
on Sintering  
**WRTCS 2019**

**Programme  
and  
The Book of Abstracts**

Organised by:  
**Materials Research Society of Serbia**  
&  
**International Institute for the Science of Sintering**

Hunguest Hotel Sun Resort Herceg Novi, Montenegro,  
September 2-6, 2019, <http://www.mrs-serbia.org.rs>

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**Conference Secretary:** Maja Jovanović, Jasmina Jevtić

## **Conference Technical Committee**

**Ivana Dinić,** Sonja Jovanović, Zoran Jovanović, Željko Mravik, Milena Dojčinović, Daniel Mijailović, Veljko Đokić, Željko Radovanović, Vukašin Ugrinović

## **History:**

Materials science and engineering incorporate acquiring of knowledge on synthesis and processing of materials, their composition and structure, properties and behaviour, functions and potentialities as well as application of that knowledge to various final products. Economic prosperity, life quality, and healthy environment are tightly connected with the improvements in

**TWENTY-SECOND ANNUAL CONFERENCE**

# **YUCOMAT 2021**

**Hunguest Hotel Sun Resort, Herceg Novi, Montenegro**

**August 30 - September 3, 2021**

**<http://www.mrs-serbia.org.rs>**

# **Program and Book of Abstracts**

**Organised by:**

**Materials Research Society of Serbia**

**Endorsed by:**

**Federation of European Material Societies**

## YUCOMAT GENERAL INFORMATION

### Conference Organising Committee

**Chairpersons:** Đorđe Veljović, Zoran Jovanović  
**Members:** Branko Matović, Irena Nikolić, Bojana Obradović, Vuk Radmilović,  
Nebojša Romčević, Veljko Đokić, Ljiljana Damjanović,  
Aleksandar Dekanski, Mira Vukčević.

**Conference Secretary:** Jasmina Jevtić

### Conference Technical Committee

Sonja Jovanović, Ivana Dinić, Željko Mravik, Željko Radovanović, Vukašin Ugrinović, Tamara Matić, Jelena Rmuš, Marija Milivojević, Milica Stefanović, Ivana Banićević, Dušana Nedović.

## HISTORY

The First Conference on materials science and engineering, including physics, physical chemistry, condensed matter chemistry, and technology in general, was held in September 1995, in Herceg Novi. An initiative to establish Yugoslav Materials Research Society was born at the conference and, similar to other MR societies in the world, the programme was made, and objectives determined. The Yugoslav Materials Research Society (Yu-MRS), a non-government and non-profit scientific association, was founded in 1997 to promote multidisciplinary goal-oriented research in materials science and engineering. Main task and objective of the Society is to encourage creativity in materials research and engineering to reach a harmonic coordination between achievements in this field in our country and analogous activities in the world with an aim to include our country into the global international projects. Until 2003, Conferences were held every second year and then they grew into Annual Conferences that were traditionally held in Herceg Novi in September of every year. Following the political separation between Serbia and Montenegro, in 2007 Yu-MRS formed two new MRS: MRS-Serbia (official successor of Yu-MRS) and MRS-Montenegro (in founding). In 2008 MRS-Serbia became a member of FEMS (Federation of European Materials Societies).

## YUCOMAT 2021 GENERAL INFORMATION

**DATE AND VENUE:** The conference will be held on August 30 - September 3, 2021, at the **Hunguest Hotel Sun Resort**, in Herceg Novi, Montenegro. Participants will also be accommodated there. The conference will begin on Monday, August 30<sup>th</sup>, at 09.00 and end on Friday, September 3<sup>rd</sup>, 2021, at 12.00.

**REGISTRATION:** Registration, registration fee payment, conference materials distribution, etc, will take place at the conference desk (Conference Secretariat) open on Sunday, August 29, and Monday, August 30, from 8.00 to 19.00, on Tuesday, Wednesday and Thursday 8.00-13.00 and 19.00-20.00, and on Friday from 8.00 to 12.00. At registration, the participants are requested to submit a proof of their advance registration fee payment.

**TWENTY-THIRD ANNUAL CONFERENCE  
YUCOMAT 2022**  
&  
**TWELFTH WORLD ROUND TABLE CONFERENCE  
ON SINTERING  
XII WRTCS**

**Hunguest Hotel Sun Resort, Herceg Novi, Montenegro  
August 29 - September 2, 2022**

**Program  
and  
the Book of Abstracts**

Organised by:  
**Materials Research Society of Serbia**  
&  
**International Institute for the Science of Sintering**

Endorsed by:  
**Federation of European Material Societies**

## **YUCOMAT 2022**

### **Conference Organising Committee**

**Chairpersons:** Đorđe Veljović, Zoran Jovanović

**Members:** Branko Matović, Irena Nikolić, Bojana Obradović, Vuk Radmilović,  
Veljko Đokić, Ljiljana Damnjanović, Sonja Jovanović, Aleksandar  
Dekanski, Mira Vukčević, Željko Radovanović

**Conference Managers:** Ivana Kovačević, Dušana Nedović, Jasmina Jevtić

### **Conference Technical Committee**

Ivana Dinić, Željko Mravik, Vukašin Ugrinović, Tamara Matić, Marija Milivojević, Milica Stefanović,  
Ivana Baničević, Marija Stevanović, Jelena Petrović, Anđela Radisavljević, Nemanja Barać, Marko Jelić

## **HISTORY**

The First Conference on materials science and engineering, including physics, physical chemistry, condensed matter chemistry, and technology in general, was held in September 1995, in Herceg Novi. An initiative to establish Yugoslav Materials Research Society was born at the conference and, similar to other MR societies in the world, the programme was made, and objectives determined. The Yugoslav Materials Research Society (Yu-MRS), a non-government and non-profit scientific association, was founded in 1997 to promote multidisciplinary goal-oriented research in materials science and engineering. Main task and objective of the Society is to encourage creativity in materials research and engineering to reach a harmonic coordination between achievements in this field in our country and analogous activities in the world with an aim to include our country into the global international projects. Until 2003, Conferences were held every second year and then they grew into Annual Conferences that were traditionally held in Herceg Novi in September of every year. Following the political separation between Serbia and Montenegro, in 2007 Yu-MRS formed two new MRS: MRS-Serbia (official successor of Yu-MRS) and MRS-Montenegro (in founding). In 2008 MRS-Serbia became a member of FEMS (Federation of European Materials Societies).



TWENTY-FOURTH ANNUAL CONFERENCE

Прилог 9.16

# YUCOMAT 2023

Hunguest Hotel Sun Resort, Herceg Novi, Montenegro  
September 4 - 8, 2023

# Program and Book of Abstracts

Organised by  
Materials Research Society of Serbia

Endorsed by  
Federation of European Material Societies

# YUCOMAT 2023

## Conference Organising Committee

**Chairpersons:** Đorđe Veljović, Zoran Jovanović

**Members:** Branko Matović, Irena Nikolić, Bojana Obradović, Vuk Radmilović, Veljko Đokić, Ljiljana Damnjanović, Sonja Jovanović, Aleksandar Dekanski, Mira Vukčević, Željko Radovanović

**Conference Secretary:** Jasmina R. Jevtić

## Conference Technical Committee

Ivana Dinić, Željko Mravik, Jelena Rmuš Mravik, Vukašin Ugrinović, Tamara Matić, Marija Milivojević, Jana Petrović, Jovan Lukić, Nemanja Barać, Marko Jelić

## History

The First Conference on materials science and engineering, including physics, physical chemistry, condensed matter chemistry, and technology in general, was held in September 1995, in Herceg Novi. An initiative to establish Yugoslav Materials Research Society was born at the conference and, similar to other MR societies in the world, the programme was made, and objectives determined. The Yugoslav Materials Research Society (Yu-MRS), a non-government and non-profit scientific association, was founded in 1997 to promote multidisciplinary goal-oriented research in materials science and engineering. Main task and objective of the Society is to encourage creativity in materials research and engineering to reach a harmonic coordination between achievements in this field in our country and analogous activities in the world with an aim to include our country into the global international projects. Until 2003, Conferences were held every second year and then they grew into Annual Conferences that were traditionally held in Herceg Novi in September of every year. Following the political separation between Serbia and Montenegro, in 2007 Yu-MRS formed two new MRS: MRS-Serbia (official successor of Yu-MRS) and MRS-Montenegro (in founding). In 2008 MRS-Serbia became a member of FEMS (Federation of European Materials Societies).

## General information

**DATE AND VENUE:** The conference will be held on September 4-8, 2023, at the Hunguest Hotel Sun Resort, in Herceg Novi, Montenegro. Participants will also be accommodated there. The conference will begin on Monday, September 4<sup>th</sup>, at 08.30 and end on Friday, September 8<sup>th</sup>, 2023, at 12.30.

**REGISTRATION:** Registration, registration fee payment, conference materials distribution, etc, will take place at the conference desk (Conference Secretariat) open on Sunday, September 3<sup>rd</sup>, and Monday, September 4<sup>th</sup>, from 7.30 to 19.00, on Tuesday, Wednesday and Thursday 07.30-12.00 and 19.00-20.00, and on Friday from 07.30 to 12.00. At registration, the participants are requested to submit a proof of their advance registration fee payment.

**SECOND INTERNATIONAL CONFERENCE**

# **ELMINA 2022**

Serbian Academy of Sciences and Arts, Belgrade, Serbia  
August 22nd-26th, 2022  
<http://elmina.tmf.bg.ac.rs>

## **Program and Book of Abstracts**

Organized by:  
**Serbian Academy of Sciences and Arts**  
and  
**Faculty of Technology and Metallurgy, University of Belgrade**

Endorsed by:  
**European Microscopy Society**  
and  
**Federation of European Materials Societies**

## Technical Committee

**Chair:** Đorđe Veljović

**Members:** Ivana Dinić, Milena Dojčinović, Jovan Lukić, Tamara Matić, Aleksandra Mašulović, Daniel Mijailović, Marija Milivojević, Željko Mravik, Vladimir Pavkov, Anđela Radisavljević, Vladimir Rajić, Tijana Stamenković, Milica Stefanović, Milena Stevanović, Vukašin Ugrinović.

## GENERAL INFORMATION

**DATE AND VENUE:** The conference will be held August 22<sup>nd</sup>-26<sup>th</sup>, 2022 at the Serbian Academy of Sciences and Arts, Knez Mihailova 35, 11000 Belgrade, Serbia with the beginning at 8:30 AM on August 22<sup>nd</sup> 2022, in the main lecture hall.

**REGISTRATION:** At the registration desk, located in front of the main lecture hall of the conference venue. Registration desk working hours are: Monday, August 22<sup>nd</sup>, from 8:00 to 14:00, Tuesday, August 23<sup>rd</sup>, from 8:15 to 14:00, Wednesday, August 24<sup>th</sup>, from 8:15 to 14:00 and Thursday August 24<sup>th</sup>, from 8:15 to 12:00. Registered participants will receive a nametag and a conference bag.

**INSTRUCTIONS FOR AUTHORS:** The conference will feature plenary sessions, oral sessions and poster sessions as well as vendor presentations during lunch breaks. Presentations during plenary sessions will last 30 minutes each, including discussion while oral presentations will be 15 minutes each, including discussion. Standard and hands-free microphones will be on site. No A-V equipment will be provided for any poster presentations. Poster presenters must remain at their poster on their assigned day during the required poster session. Each poster will be allocated a 1180 mm high and 841 mm wide (A0 format) display area.

**CONFERENCE AWARDS:** Oral and poster presentations will be reviewed according to the following criteria: (a) relevance to a specific symposium, (b) scientific content, quality and innovative proposals, (c) clarity of the text, and (d) compliance with the format. During the conference, the best three (3) oral and three (3) poster presentations, selected by an award committee, will receive awards.



## Organizing Committee

Vuk Radmilović [Chair], Faculty of Technology and Metallurgy, University of Belgrade, Serbia

Marija Aleksić, Faculty of Biology, University of Belgrade, Serbia

Ivana Dinić, Institute for Technical Sciences of the Serbian Academy of Sciences and Arts, Belgrade

Milena Dojčinović, Institute for Multidisciplinary Research, University of Belgrade, Serbia

Nemanja Latas, Institute for Nuclear Sciences Vinča, National Institute of the Republic of Serbia, University of Belgrade, Serbia

Jovan Lukić, Faculty of Technology and Metallurgy, University of Belgrade, Serbia

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Željko Mravik, Institute for Nuclear Sciences Vinča, National Institute of the Republic of Serbia, University of Belgrade, Serbia

Vladimir Pavkov, Institute for Nuclear Sciences Vinča, National Institute of the Republic of Serbia, University of Belgrade, Serbia

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За Министарство просвете, науке и технолошког развоја  
Комисија за стицање научних звања

### Потврда о руковођењу пројектним задатком

Овим потврђујем да је др Ивана Динић, научни сарадник Института техничких наука САНУ, у периоду од 01.01.2019. до 31.12.2019. била руководилац пројектног задатка „Развој иновативних метода синтезе 1Д и 3Д функционалних наноматеријала“ у оквиру потпројекта „Синтеза и карактеризација 1Д и 3Д функционалних наноматеријала са великим односом површине према запремини са применом у енергетици и екологији“, чији је руководилац била др Оливера Милошевић, а све то у оквиру пројекта ОИ172035 „Рационални дизајн и синтеза биолошки активних и координационих једињења и функционалних материјала, релевантних у (био) нанотехнологији“ руководиоца др Александра Николића.

У Београду, 15.12.2021

Др Александар Николић  
Научни саветник Хемијског факултета  
Универзитет у Београду



Belgrade, 26. 03. 2024.

## Membership Certificate

This is to confirm that **Dr. Ivana Dinić**, from Institute of Technical Sciences of Serbian Academy of Sciences and Arts, is a member of Serbian Ceramic Society.

**Dr. Ivana Dinić** is a Financial Secretary within Serbian Ceramic Society.

Serbian Ceramic Society

President

Dr. Nina Obradović



***Društvo za istraživanje materijala Srbije***  
***Material Research Society of Serbia***

Beograd, 26.03.2024. godine

**POTVRDA O ČLANSTVU**

Ovim se potvrđuje da je Ivana Dinić, zaposlena u Institutu tehničkih nauka SANU, višegodišnji član Društva za istraživanje materijala Srbije.

Predsednik Društva

Prof. dr Dragan Uskoković



# Thank you . . .

Ivana Dinic  
 Institute of Technical Sciences of SASA  
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