

**Poster Session ReMat 2024, October 22<sup>nd</sup>, 2024**

**Chair: Dr. Lina Mikoliunaite, Vilnius University and Center for Physical Sciences and Technology, Lithuania**

<b>01</b>	<b>Ruhany Azeez</b> Dissolution Kinetics of Rare Earth Elements from Estonian Phosphate Rock during Processing with Hydrochloric Acid
<b>02</b>	<b>Elžbieta Bajorinaitė</b> Could Phosphogypsum Waste Be a Source of Rare-Earth Elements?
<b>03</b>	<b>Vitalii Boiko</b> Synthesis parameter effect on the optical properties and structure of Eu doped ZnGa <sub>2</sub> O <sub>4</sub> persistent phosphors
<b>04</b>	<b>Alėja Marija Daugėlaitė</b> Upconverting Nanocomplexes Loaded Mesenchymal Stem Cells for Two-Step Photodynamic Therapy
<b>05</b>	<b>Igor Djerdj</b> High-Entropy Oxides: Game-Changers in CO <sub>2</sub> Hydrogenation Photocatalysis
<b>06</b>	<b>Justina Gaidukevič</b> Europium Oxide-Modified Reduced Graphene Oxide Composite for Serotonin Detection
<b>07</b>	<b>Yuriy Gerasymchuk</b> Zirconium phthalocyanine and reduced graphite oxide composite materials for photocatalytic purification of waste water
<b>08</b>	<b>Mariusz Hasiak</b> Lanthanide-Doped Gd-Ge-Si Alloys: Microstructure, Magnetic Properties, and Magnetocaloric Performance
<b>09</b>	<b>J. Hölsä</b> Charge Compensation and Persistent Luminescence: CaWO <sub>4</sub> :Eu <sup>3+</sup>
<b>10</b>	<b>J. Hölsä</b> Defects and Persistent Luminescence of Tb <sup>3+</sup> Doped Ca <sub>2</sub> Ga <sub>2</sub> GeO <sub>7+δ</sub>
<b>11</b>	<b>Greta Inkrataitė</b> Praseodymium doped garnets as new generation scintillators
<b>12</b>	<b>Ewa Kasprzycka</b> Quinolones as sensitizers of visible emitting lanthanide(III) ions
<b>13</b>	<b>Artūras Katelnikovas</b> Synthesis and Optical Properties of Eu <sup>3+</sup> , Sm <sup>3+</sup> , and Ce <sup>3+</sup> -Doped Na <sub>7</sub> Mg <sub>13</sub> La(PO <sub>4</sub> ) <sub>12</sub> Phosphors
<b>14</b>	<b>Vaidas Klimkevičius</b> Surface Functionalization of UCNPs for Excellent Colloidal Stability and Cellular Uptake
<b>15</b>	<b>Gabrielė Klydžiūtė</b>

	Synthesis and Characterization of Layered Double Hydroxides (LDH) Replacing the $M^{2+}/M^{3+}$ Ions with Zinc, Copper and Lanthanum
<b>16</b>	<b>Amadeusz Łaszcz</b> Impact of High-Temperature Heat Treatment on the Functional Properties of Gd-Doped Ni-Mn-Ga Magnetic Shape Memory Alloy
<b>17</b>	<b>Janina Legendziewicz</b> Thermoluminescence application in architecture studies of the Gothic cathedral in Opole
<b>18</b>	<b>Greta Linkaitė</b> Synthesis of Biphasic Calcium Phosphate Granules from Gypsum Under Static and Rotating Conditions
<b>19</b>	<b>Agnieszka Lipke</b> The influence of phosphates on the tetrad effect in the adsorption systems with red clay or zeolites
<b>20</b>	<b>Anna Lukowiak</b> Photoluminescence of RE-doped bioactive glass
<b>21</b>	<b>Marvin Michak</b> In situ investigations on H/O exchange reactions in yttrium hydride oxide YHO
<b>22</b>	<b>Christoph Middelhoff</b> Novel Gain Media for a Potential UV-B Up-Conversion Laser
<b>23</b>	<b>Agata Musiałek</b> Laser induced white emission and photocurrent of GaN nanoceramics
<b>24</b>	<b>Turlybek Nurakhmetov</b> Luminescence and electron-hole trapping centers of phosphates and sulfates activated by transition and rare-earth ions
<b>25</b>	<b>Kazuya Omuro</b> Next-Generation X-Ray Imaging Scintillators: Challenges and Opportunities in $Ce^{3+}$ -Doped $(Lu_{1-x}Tb_x)_3Al_2Ga_3O_{12}$ Garnet Crystals
<b>26</b>	<b>Tim Pier</b> On the Photoluminescence of Pr(III) Substituted Pyrophosphate Polymorphs
<b>27</b>	<b>Rosina Celeste Ponterio</b> Microorganisms as Promising Biotechnological Candidates for Rare Earth Elements Recovery
<b>28</b>	<b>Maciej Ptak</b> Structural, phonon, and optical properties of inorganic perovskites tuned by aliovalent doping
<b>29</b>	<b>Olzhas Shalkhar</b> New insight in the sol-gel synthesis of lanthanide-substituted garnets
<b>30</b>	<b>Dmytro Shyshkin</b> Synthesis of Nickel-Rhenium-Phosphorous Catalysts and their Application for Oxygen Evolution Reaction
<b>31</b>	<b>Jonas Stadulis</b>

	Luminescent Properties of $\text{Eu}^{2+}$ -doped $\text{Sr}_5(\text{PO}_4)_3\text{Cl}$ Synthesized in Air Atmosphere
<b>32</b>	<b>Mariusz Stefanski</b> Broad Luminescence Generated by IR Laser Excitation from $\text{CsPbBr}_3:\text{Yb}^{3+}$ Perovskite Ceramics
<b>33</b>	<b>Simona Streckaite</b> The limiting factors of quantum-cutting efficiency of ytterbium-doped lead halide perovskites: dimeric and monomeric ytterbium species
<b>34</b>	<b>Robert Tomala</b> Laser induced white emission as a tool for pressure sensing
<b>35</b>	<b>Marlies Van Bael</b> Controlling oxygen vacancies in $\text{CeO}_{2-x}$ for $\text{CO}_2$ reduction
<b>36</b>	<b>Diana Vištorskaja</b> The Sol-Gel Synthesis and Characterization of Novel Garnet-Type Luminescent Materials
<b>37</b>	<b>Patrycja Zdeb</b> Visible-to-UVC Upconversion in $\text{Pr}^{3+}$ -Doped Phosphors: A Step Towards Innovative UVC Light Sources