Seznam publikací a výsledků oddělení struktury a vlastnosti materiálů v roce 2022
List of publications and results in 2022

1. Kloužek J., Cincibusová P., Vernerová M., Hrma P., Marcial J., Pokorný R. (2021): Visual observation of foaming at the batch-melt interface during melting of soda-lime-silica glass. Ceramics-Silikaty 65 (4), 410-416. https://doi.org/10.13168/cs.2021.0044
(RVO 67985891)

2. Kolářová M., Kloužková A., Stodolová K., Kloužek J., Dvořáková P., Kohoutková M. (2021): Interaction of historical lead glazes with corrosive media. Ceramics-Silikaty 65 (4), 417-426. https://doi.org/10.13168/cs.2021.0045
(RVO 67985891)

3. Cincibusová P., Jebavá M., Tonarová V., Němec L. (2022): Impact of melt flow on the process of glass melting. Journal of Asian Ceramic Societies. 10 (3), 621-637. https://doi.org/10.1080/21870764.2022.2099102
(TH02020316, RVO 67985891)

4. Yatskiv R., Kostka P., Grym J., Zavadil J. (2022): Temperature sensing down to 4 K with erbium doped tellurite glasses. Journal of Non-Crystalline Solids. 575 (1 January 2022), 121183. https://doi.org/10.1016/j.jnoncrysol.2021.121183
(GAČR 19-07456S)

5. Marcial J., Kloužek J., Vernerová M, Ferkl P., Lee S., Cutforth D., Hrma P., Kruger A., Pokorný R. (2022): Effect of Al and Fe sources on conversion of high-level nuclear waste feed to glass. Journal of Nuclear Materials. 559 (February 2022), 153423. https://doi.org/10.1016/j.jnucmat.2021.153423
(RVO 67985891)

6. Marcial J., Luksic S., Kloužek J., Vernerová M., Cutforth D., Varga T., Hrma P., Kruger A., Pokorný R. (2022): In-situ x-ray and visual observation of foam morphology and behavior at the batch-melt interface during melting of simulated waste glass. Ceramics International. 48 (6), 7975-7985. https://doi.org/10.1016/j.ceramint.2021.11.344
(RVO 67985891)

7. Marcial J., George J., Ferkl P., Pokorný R., Kissinger R., Crum J., Kloužek J., Hrma P., Kruger A., (2022): Elemental mapping and iron oxidation state measurement of synthetic low-activity waste feeds. Journal of Non-Crystalline Solids. 591 (1 September 2022), 121725. https://doi.org/10.1016/j.jnoncrysol.2022.121725
(RVO 67985891)

8. Rigby J., Dixon D., Cutforth D., Marcial J., Kloužek J., Pokorný R., Kruger A., Scrimshire A., Bell M., Bingham P. (2022): Melting behaviour of simulated radioactive waste as functions of different redox iron-bearing raw materials. Journal of Nuclear Materials. 569 (October 2022), 153946. https://doi.org/10.1016/j.jnucmat.2022.153946
(RVO 67985891)

9. Lee S., Jin T., Rivers E., Kloužek J., Luksic S., Marcial J., George J., Dixon D., Eaton W., Kruger A. (2022): Effect of sucrose on technetium and rhenium retention during

vitrification of Low-activity wastes. Journal of the American Ceramic Society. 105 (12), 7321-7333. https://doi.org/10.1111/jace.18701
(RVO 67985891)

10. Marcial J., Cicconi M., Pearce C., Kloužek J., Neeway J., Pokorný R., Vernerová M., McCloy J., Nienhuis E., Sjoblom R., Weaver J., Hand R., Hrma P., Neuville D., Kruger A. (2022): Effect of network connectivity on behavior of synthetic Broborg Hillfort glasses. Journal of the American Ceramic Society. xxx, xxx-xxx. https://doi.org/10.1111/jace.18778 (accepted)
(RVO 67985891)

11. Ferkl P., Hrma P., Abboud A., Guillen D., Vernerová M., Kloužek J., Hall M., Kruger A., Pokorný R. (2022): Conversion degree and heat transfer in the cold cap and their effect on glass production rate in an electric melter. International Journal of Applied Glass Science xxx, xxx-xxx. https://doi.org/10.1111/ijag.16615 (accepted)
(RVO 67985891)

12. Novotná M., Knotek P., Hanzlíček T., Kutálek P., Perná I., Melánová K., Černošková E., Kopecká K. (2021): TiO2 Modified Geopolymers for the Photocatalytic Dye Decomposition. Crystals *11(12)*, 1511. https://doi.org/10.3390/cryst11121511

13. Straka P., Bičáková O., Hlinčík T. (2021): A Comparison of the Efficiency of Catalysts Based on Ni, Ni-Co and Ni-Mo in Pressure Pyrolysis of Biomass Leading to Hythane. Catalysts *11*, 1480. https://doi.org/10.3390/catal11121480

14. Straka P., Bičáková O., Šupová M. (2022): Slow pyrolysis of waste polyethylene terephthalate yielding paraldehyde, ethylene glycol, benzoic acid and clean fuel. Polymer Degradation and Stability *198*, 109900. https://doi.org/10.1016/j.polymdegradstab.2022.109900

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15. Novotná M., Polonská A., Šídlová M., Perná I. (2021): Geopolymers: The influence of alkaline activator cations on efflorescence. Proceedings of the 8th International Conference on Chemical Technology, Prague, 326-331. ISBN 978-80-88307-08-2.
https://www.icct.cz/cs/Amca-ICCT/media/content/2021/proceedings/ICCT2021-Proceedings.pdf

Užitný vzor, patent, ověřená technologie, software

16. Němec, L., Jebavá M., Cincibusová P., Budík P., Tonarová V.: Glasschmelzofen. Německý užitný vzor č. DE 20 2021 106 406 U1 (17.05.2022).
(RVO 67985891)

| Č. | Publikace | Časopis | Citace WoS |
|---|---|---|---|
| 1 | Článek | Ceramics-Silikaty | 0 |
| 2 | Článek | Ceramics-Silikaty | 0 |
| 3 | Článek | Journal of Asian Ceramic Societies | 0 |
| 4 | Článek | Journal of Non-Crystalline Solids | 1 |
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| 8 | Článek | Journal of Nuclear Materials | 0 |
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