

LISTĂ DE LUCRĂRI ȘTIINȚIFICE

CS I Dr. Ing. Andreea-Cristina Hegyi

A. Teza de doctorat

Voicu (căs. Hegyi) A.C. (2010), Studiul coroziunii în beton a armăturii zincată termic, Universitatea Tehnică din Cluj-Napoca, Facultatea de Ingineria Materialelor și a Mediului

B. Brevete de invenție

I. Brevete de invenție

I.1. Călătan Gabriela Adela, **Hegyi Andreea Cristina**, Szilagyi Henriette, Meiță Vasile, "SISTEM DE CONSTRUCȚIE A PEREȚILOR PE BAZĂ DE ARGILĂ NEARSĂ" - RO133842 (B1)/2024

I.2. **Hegyi Andreea Cristina**, Szilagyi Henriette, Dico Carmen, Meiță Vasile, "PANOURI TERMOIZOLANTE COMPOZITE CU MIEZ DE LÂNĂ DE OAI, METODE DE OBTINERE ȘI PUNERE ÎN OPERĂ" - RO134241 (B1)/2024

II. Cereri de Brevete de invenție național depuse la OSIM

II.1 Voinițchi Constantin-Dorinel, Cladoveanu Flavius - Valeriu, Zapciu Miron, Nicolae Adriana, Ionescu Nicoleta - Adaciza, Dima Cătălin, Meiță Vasile, Matei Claudiu Lucian, Szilagyi Henriette, Baeră Cornelia, **Hegyi Andreea - Cristina**, Sandu Mihaela, Deak Gyorgy, Moncea Mihaela - Andreea, Dumitru Florina Diana; Panait Ana Maria, MATERIALE CU MATRICE PE BAZĂ DE CIMENT CU PROPRIETĂȚI DE AUTOREPARARE PE BAZĂ DE GRANULE REACTIVE CU ÎNVELIȘ PROTECTOR, Număr de publicare RO134320 (A0) /7/30/2020, Clasificarea internațională C04B24/00, Număr cerere de brevet RO20200000022 / 2020/01/20, Număr(numere) de prioritate RO20200000022 20200120

II.2 **Hegyi Andreea-Cristina**, Grebenișan Elvira, Lăzărescu Adrian Victor, Szilagyi Henriette, Meită Vasile, Sandu Mihaela, Baeră Cornelia, PROCEDEU DE REALIZARE A COMPOZITELOR CEMENTOASE PE BAZĂ DE CIMENT PORTLAND ALB, RESPECTIV A ELEMENTELOR DE PLACARE, CU CAPACITATE DE AUTOCURĂȚARE, Număr de publicare RO135983 (A2) / 9/30/2022, Clasificarea internațională C04B14/04, Număr cerere de brevet RO20210000117 / 2021/03/17, Număr(numere) de prioritate RO20210000117 20210317

II.3 **Hegyi Andreea-Cristina**, Bulacu Cezar Florin, Lăzărescu Adrian Victor, Ionescu Brăduț- Alexandru, Grebenișan Elvira, Călătan Gabriela Adela, Dico Carmen Silvia, Rus Mircea- Iosif, Petcu Cristian, Toader Tudor Panfil, Florean Carmen Teodora, Chira Mihail, Sanda Adriana, MATERIAL TEXTIL NECONVENȚIONAL REALIZAT PE BAZĂ DE LÂNĂ DE OAIE, FIBRE DIN DEȘEURI PVC RECICLATE, DEȘEURI TEXTILE RECICLATE ȘI FIBRE DE NATURĂ VEGETALĂ, DESTINAT IZOLĂRII CONSTRUCȚIILOR ȘI PROCEDEU DEREALIZARE A ACESTUIA, Număr de publicare RO138039 (A2) / 3/29/2024, Clasificarea internațională E04B1/62; E04B2/30, Număr cerere de brevet RO20220000570 / 2022/09/19, Număr(numere) de prioritate RO20220000570 20220919

II.4 Lăzărescu Adrian Victor, Ionescu Brăduț- Alexandru, Vasile Vasilica, **Hegyi Andreea-Cristina**, PROCEDEU DE REALIZARE ȘI ELEMENTE DE PLACARE DIN MICROBETON GEOPOLIMERACTIVAT ALCALIN, FĂRĂ CONȚINUT DE CIMENT, Număr de publicare RO137964 (A2) / 2/28/2024, Clasificarea internațională C04B14/04; C04B22/06, Număr cerere de brevet RO20220000481 / 2022/08/09, Număr(numere) de prioritate RO20220000481 20220809

II.5 Bradu Aurelia, **Hegyi Andreea-Cristina**, Barbu Alexandra-Marina, Ciobanu Adrian-Alexandru, Lăzărescu Adrian Victor, MORTAR PENTRU ZIDĂRIE PE BAZĂ DE ARGILĂ ȘI MATERIALE SUSTENABILE LOCALE, Număr cerere de brevet A/00373/2024 / 27.06.2024

C. Cărți și capitole de cărți

I. Cărți publicate la edituri internaționale

I.1 **Hegyi A.**, Vermeșan H., Rus V. (2011), The Corrosion of Hot Dip Galvanized Rebars in Concrete – A research study, LAP Lambert Academic Publishing GmbH&Co. KG, ISBN 978-3-8465-1473-3 (208 pag).

I.2 Lăzărescu A.-V., Szilagyi H., Baeră C., **Hegyi A.** (2021), Alternative Concrete – Geopolymer Concrete Emerging Research and Opportunities, Materials Research Forum LLC Millersville, PA 17551, USA, Print ISBN 978-1-64490-152-6 ePDF ISBN 978-1-64490-153-3 (140 pag.)

II. Cărți publicate la edituri naționale

II.1 Lăzărescu A., Szilagyi H., Baeră C., **Hegyi A.** (2020), Betoane alternative – Betonul geopolimer. Cercetări și oportunități emergente, Ed. Napoca, ISBN 978-606-062-023-5, 156 pag.

II.2 Călătan G., **Hegyi A.**, Szilágyi H., Meiță V., Sandu M. (2020), Materiale vernaculare pentru construcții în contextul dezvoltării durabile, Ed. MEGA, ISBN 978-606-020-210-3, 348 pg.

II.3 Hegyi A., Bulacu C., Pectu C., Petran H., Lăzărescu A., Rus M.I. (2022), Principii de proiectare compozițională, testare în condiții de laborator, analiză și evaluare a durabilității și utilizare a produselor termoizolante bio eco inovative de tip saltele nețesute – Îndrumător, Ed. NAPOCA STAR, ISBN 978-606-062-435-6, 111 pag.

III. Capitole de cărți

III.1 **Hegyi A.**, Vermeșan H., Rus V., Grunwald E., Vermeșan G. (2010), Research on the Corrosion Protection of Galvanized Rebar in Concrete , Jahrbuch Oberflächentechnik, Band 66, Leuze Verlag, pag. 229 – 240, ISBN 978-3-87480-259-8.

III.2 **Hegyi A.**, Vermeșan H., Rus V., Grunwald E., Vermeșan G. (2011), Corrosion Behaviour of Hot Dip Galvanized Rebars in Concrete with Metallurgical Slag, Jahrbuch Oberflächentechnik, Band 67, Leuze Verlag, pag. 239 – 249, ISBN 978-3-87480-268-0.

D. Articole publicate în reviste științifice

I. Lucări publicate în reviste indexate ISI, Clarivate Web of Science Core Collection, SCIE

I.1 Toader, T. P., Moldoveanu, M. I., Boca, D. M., Iștoan, R., Lupan, L. M., Bradu, A., Hegyi, A., Boga, A., Sustainable Investments in Construction: Cost–Benefit Analysis Between Rehabilitation and New Building in Romania. *Buildings*, 2025, 15(15), 2770, <https://doi.org/10.3390/buildings15152770>, WOS:001549473100001

I.2 Sur, I.M., Hegyi, A., Micle, V., Molnar, H., Gabor, T., Remediation of soils polluted with metals by phytoextraction using *Hordeum vulgare* L.. *Int. J. Environ. Sci. Technol.* (2025). <https://doi.org/10.1007/s13762-025-06566-3> , WOS:001499197400001

I.3 Chira, M., Lăzărescu, A. V., **Hegyi, A.***, Vermesan, H., Csapai, A., Ionescu, B. A., Toader, T.P., Florean, C., Influence of Alkaline Activator Properties on Corrosion Mechanisms and Durability of Steel Reinforcement in Geopolymer Binders. *Coatings*, 2025, 15(6), 734., <https://doi.org/10.3390/coatings15060734> , WOS:001514746400001

I.4 Florean, C. T., Chira, M., Vermeșan, H., Gabor, T., **Hegyi, A.**, Crișan, C. A., & Câmpian, C., The Influence of Using Recycled Waste Aggregates and Adding TiO₂ Nanoparticles on the Corrosion Resistance of Steel Reinforcement Embedded in Cementitious Composite., *Materials*, 2024, 17(16), 3895., <https://doi.org/10.3390/ma17163895> , WOS:001307141700001

I.5 Florean, C. T., Csapai, A., Vermesan, H., Gabor, T., **Hegyi, A.***, Stoian, V., Uriciuc, W.A., Petcu, C., Cîmpan, M., Influence of the addition of TiO₂ nanoparticles on the self-cleaning capacity of cementitious composites. *Materials*, 2024, 17(13), 3098., <https://doi.org/10.3390/ma17133098>, WOS:001266744700001

I.6 Florean, C. T., Vermeșan, H., Gabor, T., Neamțu, B. V., Thalmaier, G., **Hegyi, A.**, Csapai, A., Lăzărescu, A. V., Influence of TiO₂ nanoparticles on the physical, mechanical, and structural characteristics of cementitious composites with recycled aggregates., *Materials*, 2024, 17(9), 2014., <https://doi.org/10.3390/ma17092014> , WOS:001220519800001

- I.7 Florean, C. T., Vermesan, H., Thalmaier, G., Neamtu, B. V., Gabor, T., Campian, C., **Hegyi, A.***, Csapai, A., The influence of TiO₂ nanoparticles on the physico-mechanical and structural characteristics of cementitious materials., *Coatings*, 2024, 14(2), 218, <https://doi.org/10.3390/coatings14020218> , WOS:001175240800001
- I.8 Lăzărescu, A. V., **Hegyi, A.***, Csapai, A., & Popa, F., Influence of Different Aggregates on the Physico-Mechanical Performance of Alkali-Activated Geopolymer Composites Produced Using Romanian Fly Ash, *Materials*, 2024, 17(2), 485., <https://doi.org/10.3390/ma17020485> , WOS:001151522600001
- I.9 Petcu, C., Dobrescu, C. F., Dragomir, C. S., Ciobanu, A. A., Lăzărescu, A. V., **Hegyi, A.***, Thermophysical characteristics of clay for efficient rammed earth wall construction, *Materials*, 2023, 16(17), 6015, <https://doi.org/10.3390/ma16176015> , WOS:001062375000001
- I.10 Sur, I. M., **Hegyi, A.**, Micle, V., Gabor, T., Lăzărescu, A. V., Influence of the Extraction Solution on the Removal of Heavy Metals from Polluted Soils, *Materials*, 2023, 16(18), 6189. <https://doi.org/10.3390/ma16186189> , WOS:001074173400001
- I.11 Petcu C.; **Hegyi A.***; Stoian V.; Dragomir C.S.; Ciobanu A.A.; Lăzărescu A.-V.; Florean C., Research on Thermal Insulation Performance and Impact on Indoor Air Quality of Cellulose-Based Thermal Insulation Materials., *Materials*, 2023, 16, 5458, <https://doi.org/10.3390/ma16155458> , WOS:001046252400001
- I.12 **Hegyi A.**, Petcu C., Ciobanu A. A., Calatan G., Bradu A., Development of Clay-Composite Plasters Integrating Industrial Waste, *Materials*, 2023, 16(14):4903, <https://doi.org/10.3390/ma16144903> , WOS:001039850900001
- I.13 **Hegyi A.**, Lazarescu A.-V., Ciobanu A.A., Ionescu B.A., Grebenisan E., Chira M., Florean C., Vermesan H., Stoian V., Study on the Possibilities of Developing Cementitious or Geopolymer Composite Materials with Specific Performances by Exploiting the Photocatalytic Properties of TiO₂ Nanoparticles, *Materials*, 2023, 16, 3741, <https://doi.org/10.3390/ma16103741> , WOS:000997192300001
- I.14 Ionescu B.A., Chira M., Vermeşan H., **Hegyi A.***, Lăzărescu A.-V., Thalmaier G., Neamtu B.V., Gabor T., Sur I.M., Influence of Fe₂O₃, MgO and Molarity of NaOH Solution on the Mechanical Properties of Fly Ash-Based Geopolymers, *Materials*, 2022, 15, 6965, <https://doi.org/10.3390/ma15196965> , WOS:000866898700001

- I.15 Mangau A.; Vermesan H.; Paduretu S.; **Hegyi A.**, An Incursion into Actuality: Addressing the Precautionary Principle in the Context of the Circular Economy, *Sustainability*, 2022, 14, 10090, <https://doi.org/10.3390/su141610090> , WOS:000845286800001
- I.16 Sur I.M.; Micle V.; **Hegyi A.***; Lazarescu A.-V., Extraction of Metals from Polluted Soils by Bioleaching in Relation to Environmental Risk Assessment, *Materials*, 2022, 15, 3973. <https://doi.org/10.3390/ma15113973>, WOS:000808976400001
- I.17 **Dénes T.-O., Iştoan R., Tămaş-Gavrea D.R., Manea D.L., Hegyi A.**; Popa F., Vasile O., Analysis of Sheep Wool-Based Composites for Building Insulation, *Polymers*, 2022, 14, 2109, <https://doi.org/10.3390/polym14102109> , WOS:000801570300001
- I.18 **Hegyi A.**, Vermeşan H., Lăzărescu A.-V., Petcu C., Bulacu C., Thermal Insulation Mattresses Based on Textile Waste and Recycled Plastic Waste Fibres, Integrating Natural Fibres of Vegetable or Animal Origin, *Materials*, 2022, 15(4):1348L, <https://doi.org/10.3390/ma15041348> ,WOS:000765075300001
- I.19 Mircea C.R.G., Toader T.P., **Hegyi A.**, Ionescu B.A., Mircea A., Early Age Sealing Capacity of Structural Mortar with Integral Crystalline Waterproofing Admixture, *Materials* 2021, 14, 4951, <https://doi.org/10.3390/ma14174951> , WOS:000694381700001
- I.20 **Hegyi A.**; Grebenisan E.; Lazarescu A.-V.; Stoian V.; Szilagyi H. , Influence of TiO₂ Nanoparticles on the Resistance of Cementitious Composite Materials to the Action of Fungal Species, *Materials*, 2021, 14, 4442, <https://doi.org/10.3390/ma14164442> , WOS:000690544400001
- I.21 **Hegyi A.**, Bulacu C., Szilagyi H., Lăzărescu A.-V., Meişă V., Vizureanu P., Sandu M., Improving Indoor Air Quality by Using Sheep Wool Thermal Insulation, *Materials*, 2021, 14, 2443, <https://doi.org/10.3390/ma14092443> , WOS:000650540300001
- I.22 **Hegyi A.**, Lăzărescu A.V., Szilagyi H., Grebenisan E., Goia J., Mircea A. , Influence of TiO₂ Nanoparticles on the Resistance of Cementitious Composite

Materials to the Action of Bacteria, *Materials*, 2021, 14, 1074.
<https://doi.org/10.3390/ma14051074>, WOS:000628368200001

I.23 Nicula L. M., Corbu O., Iliescu M., Sandu A. V., **Hegyi A.**, Study on the Durability of Road Concrete with Blast Furnace Slag Affected by the Corrosion Initiated by Chloride, *Advances in Civil Engineering*, 2021, 8851005,
<https://doi.org/10.1155/2021/8851005>, WOS:000613071600001

I.24 **Hegyi A.**, Szilagyi H., Grebenişan E., Sandu A. V., Lăzărescu A. V., Romila C., Influence of TiO₂ Nanoparticles Addition on the Hydrophilicity of Cementitious Composites Surfaces, *Applied Sciences*, 2021, 10:4501-4515;
<https://doi.org/10.3390/app10134501>, WOS:000550340700001

I.25 **Hegyi A.**, Dico C., Szilagyi H., Eco-innovative thermal insulation panels, based on organic fibre composite material, *Romanian Journal of Materials*, 2020, 50 (2):205 – 211, WOS:000538152900007

I.26 Rus V., Vermeşan H., **Hegyi A.**, Tiuc A. E., Electrochemical impedance spectroscopy study - evolution modeling of corrosion products layer formed at hot dip galvanized rebar–fresh concrete interface, *Romanian Journal of Materials*, 2016, 46(2): 196-203, WOS:000378101800008

I.27 Rus V., **Hegyi A.**, Vermesan H., Tiuc A. , Kinetics of the corrosion process of hot dip galvanized steel reinforcement in fresh concrete, *Studia UBB Chemia*, 2015, LX/2: 409-419, WOS:000369161800038

II. Articole publicate în reviste / volume ale conferințelor, indexate SCOPUS, altele decât cele publicate în reviste indexate ISI, Clarivate Web of Science Core Collection

II.1. Calatan G., **Hegyi A.**, Dico C., Mircea C. (2017), Experimental research on the recyclability of the clay material used in the fabrication of adobe bricks type masonry units, *Procedia Technology* 181:363 – 369

II.2. **Hegyi A.**, Vermesan H., Rus V., Grünwald E., Vermesan G. (2015), Corrosion of hot dip galvanized rebars in concrete under the attack of chlorides and freeze-thaw cycles, *Galvanotechnik* 106(1):58-73.

- II.3. **Hegyi A**, Szilagyi H., Lăzărescu A., Meişă V, Sandu M. (2020) Sheep wool heat insulation sustainability, în *Proceedings of SGEM International Scientific Conferences On Earth & Planetary Sciences, Vienna, 2020 - Green Sciences For Green Life*
- II.4. Grebenişan E., Szilagyi H., **Hegyi A**, Mircea C., Baeră C. (2019), Directory lines regarding the design and production of self-cleaning cementitious composites în: *Proceedings of the 19th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2019, Section Green Buildings Technologies And Materials*, Albena, Bulgaria
- II.5. Lăzărescu A., Szilagyi H., Baeră C., **Hegyi A**, Meişă V. (2020), Experimental Investigation on the Development of Geopolymer Paving Blocks by Using Romanian Local Raw Materials, *IOP Conf. Ser: Mater. Sci. Eng.* 877
- II.6. Grebenişan E., **Hegyi A**, Lăzărescu A. (2020), Research Regarding the Influence of TiO₂ Nanoparticles on the Performance of Cementitious Materials, *IOP Conf. Ser: Mater. Sci. Eng.* 877
- II.7. Szilagyi H., Baeră C., **Hegyi A**, Lăzărescu A. (2018), Romanian resources of waste and industrial by-products as additions for cementitious mixtures, în: *Proceedings of the 18th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2018, Section Green Buildings Technologies And Materials*, Albena, Bulgaria
- II.8. Grebenişan E., Dico C., **Hegyi A**, Călăţan G. (2018), A review concerning composite materials used in construction field, în: *Proceedings of the 18th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2018, Section Green Buildings Technologies And Materials*, Albena, Bulgaria
- II.9. Dico C., **Hegyi A**, Călăţan G. (2018), Gypsum plasterboards partition walls behavior, regarding the fire rezistance, în: *Proceedings of the 18th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2018, Section Green Buildings Technologies And Materials*, Albena, Bulgaria
- II.10. **Hegyi A**, Lăzărescu A., Dico C., Szilagyi H. (2018), The effect of TiO₂ on the properties of cementious composite materials – the current state-of-the art, în: *Proceedings of the 18th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2018, Section Green Buildings Technologies And Materials*, Albena, Bulgaria / (Scopus, ProQuest, EBSCO, Crossref, RSCI (RINC))

II.11. **Hegyi A.**, Rus V., Tiuc A. E., Grünwald E. (2015), Corrosion behavior of welded hot dip galvanized steel and the influence of the repair of the coating after welding, *Korróziós Figyelő*, Veszprem, Ungaria, 54(2): 36-39 / (SCOPUS)

II.12. Rus V., **Hegyi A.**, Vermesan H., Elekes I. E., Grünwald E. (2015), Electrochemical impedance spectroscopy study on passivated hot dip galvanized reinforcements during the hardening period of fresh concrete, *Korróziós Figyelő*, Veszprem, Ungaria, 54(2): 29-35 / (SCOPUS)

II.13. **Hegyi A.**, Vermeşan H., Rus V., Grünwald E., Vermeşan G. (2012), Corrosion of hot dip galvanized rebars in concrete under the attack of chlorides and freeze-thaw cycles. Mathematical modeling, *Jahrbuch Oberflächentechnik*, Band 68, Leuze Verlag, pag. 183-198, ISBN 978-3-87480-274-1 / (SCOPUS)

III. Lucări publicate în reviste indexate ISI, Clarivate Web of Science Core Collection, ESCI

III.1. Ciobanu, A. A., Bradu, A., **Hegyi, A.** (2024). Composite materials for eco-sustainable constructions. *Scientific Papers. Series E. Land Reclamation, Earth Observation & Surveying, Environmental Engineering*, 13., WOS:001411932900004

III.2. Florean, C., Vermesan, H., Gabor, T., Neamţu, B. V., Thalmayer, G., Corbu, O., Lazarescu A.V., **Hegyi, A.**, Csapai, A. (2024). Possibilities for conserving natural resources and the environment through the use of recycled waste aggregates as a substitute for natural aggregates in cementitious composites. *International Journal of Conservation Science*, 15(1)., WOS:001186142900002

III.3. Lazarescu, A. V., **Hegyi, A.***, Florean, C. (2024). Smart-eco-innovative composite materials with self-cleaning capability and enhanced resistance to microorganisms. *Scientific Papers. Series E. Land Reclamation, Earth Observation & Surveying, Environmental Engineering*, 13., WOS:001411932400010

III.4. Petcu, C., Dragomir, C. S., **Hegyi, A.** (2024). BUILDING SUSTAINABILITY: INTEGRATING AGRICULTURAL AND INDUSTRIAL SUB-PRODUCTS IN THE BUILDING SECTOR. *Scientific Papers. Series E. Land Reclamation, Earth Observation & Surveying, Environmental Engineering*, 13., WOS:001411932400017

III.5. Grebenișan, E., **Hegyi, A.***, Lăzărescu, A. V. (2023). Analysis regarding the increase in the resistance of cementitious self-healing composites to the action of microorganisms by induced photoactivation capacity. *Scientific Papers. Series E. Land Reclamation, Earth Observation & Surveying, Environmental Engineering*, 12., WOS:001112288100048

III.6. Lăzărescu A.V., Ionescu B. A., **Hegyi A.**, Florean C. (2022), Alkali-activated fly ash based geopolymer paving blocks: green materials for future conservation of resources, *International Journal of Conservation Science*, 13(1): 175-186, WOS:000819464600011

III.7. **Hegyi A.**, Bulacu C., Szilagyi H., Lăzărescu A.-V., Colbu D. E., Sandu M. (2021), Waste management in the context of the development of sustainable thermal insulation products for the construction sector, *International Journal Of Conservation Science* 12(1): 225-236, WOS:000625324400016

III.8. Carmen, F., Szilagyi, H., **Hegyi, A.** (2016). Environment and pollution management of pollution volatile organic compounds in Cluj-Napoca. *Present Environ. Sustain. Development*, 10, 207-217., WOS:000437788600018

III.9. **Hegyi, A.**, Dico, C., & Calatan, G. (2016). Construction sustainability with adobe bricks type elements. *Urbanism. Arhitectura. Constructii*, 7(2), 147., WOS:000372524500005

III.10. **Hegyi, A.**, Păstrav, M., & Rus, M. (2015). Environmental And Economic Aspects Of Anticorrosion Protection By Hot-Dip Galvanized Method Rebars In Concrete. *Journal of Applied Engineering Sciences*, 18(1)., WOS:000409595800003

IV. Lucări publicate în volumele unor conferințe indexate ISI-Proceedings, Clarivate Web of Science Core Collection

IV.1. **Hegyi A.**, Dico C., Szilagyi H. (2020), Sheep Wool Thermal Insulating Mattresses Behaviour in the Water Vapours Presence, în: *Proceedings of the 13th International Conference on Interdisciplinarity in Engineering (INTER-ENG) Procedia Manufacturing* 46:410-417, <https://doi.org/10.1016/j.promfg.2020.03.060>, WOS:000582466200059

- IV.2. Chira M., **Hegyi A.**, Vermeşan H., Szilagyi H., Lăzărescu A. (2020), Corrosion resistance of electrodeposited layers using a Zn-Ni electrolyte impregnated with tri-, tetra-, and pentavalent elements, în: *Proceedings of the 13th International Conference on Interdisciplinarity in Engineering (INTER-ENG) Procedia Manufacturing* 46:4-11, WOS:000582466200001
- IV.3. Calatan G., **Hegyi A.**, Dico C., Szilagyi H. (2020), Opportunities Regarding the Use of Adobe-bricks within Contemporary Architecture, în: *Proceedings of the 13th International Conference on Interdisciplinarity in Engineering (INTER-ENG) Procedia Manufacturing*. 13th International Conference Interdisciplinarity in Engineering (Inter-Eng 2019) 46:150–157, WOS:000582466200022
- IV.4. Călătan G., **Hegyi A.**, Dico C. (2016), Adobe bricks constructions. past experience, the base of the contemporary buildings, in: *Proceedings of the 16th International Multidisciplinary Scientific GeoConference & EXPO – SGEM 2016, Section Green Buildings Technologies And Materials*, 28 iunie - 7 iulie 2016, Albena, Bulgaria, ISBN 978-619-7105-69-8, ISSN 1314-2704, 17-24, WOS:000391650000003
- IV.5. Mircea A.C., Szilagyi H., **Hegyi A.**, Baera (2019), Study of Self-Healing Engineered Cementitious Composites for Durable and Sustainable Infrastructure, in: *Proceedings of the 13th International Conference on Interdisciplinarity in Engineering (INTER-ENG) Procedia Manufacturing* 46:871-878, 10.1016/j.promfg.2020.05.002, WOS:000582466200123
- IV.6. Constantinescu H., Cazan O., Szilagyi H., **Hegyi A.** (2015), Experimental Determination Of Poisson's Ratio For High Strength Concrete Using Destructive Tests, in: *Proceedings of the 15th International Multidisciplinary Scientific Geoconference (SGEM)*, 121-126, WOS:000371602600016
- IV.7. Calatan G., **Hegyi A.**, Dico C., Mircea C. (2017), Experimental Research on the Recyclability of the Clay Material used in the Fabrication of Adobe Bricks Type Masonry Units, in: *Proceedings of the 10th International Conference Interdisciplinarity In Engineering (INTER-ENG) Procedia Engineering*, 181:363-369, 10.1016/j.proeng.2017.02.402, WOS:000404612700051
- IV.8. Calatan G., **Hegyi A.**, Dico C., Mircea C (2015), Surface Waterproofing Methods Of Clay Bricks Used In Vernacular Construction, in: *Proceedings of the 15th International Multidisciplinary Scientific Geoconference (SGEM) Nano, Bio And Green - Technologies For A Sustainable Future*, II:287-294, WOS:000371602600038

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