PEER-REVIEW ARTICLES, BOOKS, PATENTS (SELECTION)

PEER-REVIEW ARTICLES – JOURNALS

1. Oltean, D.I., et al., *Electrical properties of metallic iron particle reinforced polymeric composite materials.* Journal of Optoelectronics and Advanced Materials, 2008. **10**(12): p. 3328-3331 (IF 0.577).
2. Curtu, I. and Motoc Luca D., Theoretical - experimental comparisons of multi-phase composite materials elastic coefficients retrieved from tensile, compressive and bending tests. Influencing factors. Materiale Plastice, 2008. **45**(4): p. 366-371 (IF 0.873).
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4. Motoc Luca D., et al., Multiphase polymeric composite materials CTE variation with extreme environmental conditions. Materiale Plastice, 2010. **47**(2): p. 236-239.
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9. Motoc Luca D., G. Novac, and R.M. Popescu, Measuring and characterizing CTE variations for multiphase polymeric composites subjected to extreme environmental conditions. Metalurgia International, 2011. **16**(3): p. 22-25 (IF 0.084).
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12. Motoc Luca D., J. Ivens, and N. Dadirlat, Coefficient of thermal expansion evolution for cryogenic preconditioned hybrid carbon fiber/glass fiber-reinforced polymeric composite materials. Journal of Thermal Analysis and Calorimetry, 2013. **112**(3): p. 1245-1251 (IF 2.206).
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14. Motoc Luca D., Ferrandiz Bou S., Pop A. P. – *Particle reinforced composites' elastic properties retrieval by aid of laser generated ultrasound waves*, Journal of Optoelectronics and Advanced Materials, 2015. **17**(7-8): p. 1032-1037 (IF 0.429).
15. Pop A. P, Motoc Luca D. – *Experimental research about characterization of novel fibrous composites with special applications*, Journal of Optoelectronics and Advanced Materials, 2015. **17**(7-8): p. 943-951 (IF 0.429).
16. Motoc Luca, D., S. Ferrandiz Bou, R. Balart - *Thermal properties comparison of hybrid CF/FF and BF/FF cyanate ester-based composites*, Journal of Thermal Analysis and Calorimetry, ISSN 1388-6150, 2018, https://doi.org: 10.1007/s10973-018-7222-y vol. 133 (1), 509-518, (IF 1.953).
17. Milosan, I., Varga, B., Bedo, T., Pop, A. M., Balat-Pichelin, M., Motoc Luca, D., Stoicanescu, M. - *Thermal processing and thermal analysis of AlSi12–SiC hybrid composites sintered*, J Therm Anal Calorim., 2019. https://doi.org/10.1007/s10973-019-08567-0 (IF 2.471)
18. Ferri, J.M., Motoc Luca, D., Bou, S.F., Balart, R. -*Thermal expansivity and degradation properties of PLA/HA and PLA/βTCP in vitro conditioned composites*, J Therm Anal Calorim., 2019. https://doi.org/10.1007/s10973-019-08799-0 (IF 2.471)
19. Dreyer C, Motoc Luca D. - *Reaction-to-fire parameters of CE/epoxy blend-based CF/FF and BF/FF hybrid composites*. J Therm Anal Calorim., 2020. https://doi.org/10.1007/s10973-020-09359-7 (IF 2.471)

PhD TITLES

Contribuții la studiul corelațiilor dintre gradul de tensionare și proprietățile fizice ale unor materiale utilizând metode nedistructive (sonore, vizuale) – Transilvania University of Brasov – Associated rights and privileges – Cum laudae

Development of green composites based on epoxidized vegetable oils (EVOs) with hybrid reinforcements: natural and inorganic fibres - Polytechnic University of Valencia, Spain – Associated rights and privileges – Cum laudae

PATENTS

Rezistor reglabil prin modificarea presiunii aplicate asupra elementului rezistiv, RO 123411, issued 28/02/2012

Traductor de presiune-forţă inglibat în structuri de beton, RO 126789, issued 29/09/2017

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2. Motoc Luca D. – *Materiale compozite cu pulberi: analiză, modelare, fabricare și testare ultasonică nedistructivă*, Ed. Universității Transilvania din Brașov, ISBN 973-635-527-6, 2005.
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4. Motoc Luca D. – *Echipamente de prelucrare optică a informațiilor*, Ed. Universității Transilvania din Brașov, ISBN , 2003.
5. Motoc Luca D., Gh. Bejinaru, A. Pop, M. Novac – *Materiale și semifabricate optice. Sticla optică*, Ed. Universității Transilvania din Brașov, ISBN 978-635-515-2, 2005.
6. Motoc Luca D. – *Programarea în C++. Aplicații*, Ed. Universității Transilvania din Brașov, ISBN 978-973-598-183-9, 2007.
7. S. Zamfira, D. Luca (Motoc), M. Baritz, A. Cornea, M. Ulea – *Îndrumar de optică tehnică*, Ed. Universității Transilvania din Brașov, 1998.
8. Motoc Luca D., Oltean I. D. - *Conductive polymeric composite material's behaviour under various loading conditions*, DAAAM International Scientific Book 2008, ISBN 3-901509-69-0, ISSN 1726-9687, Ed. B. Katalinic, Publisher DAAAM International Viena.
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10. Curtu I., Motoc Luca D. –*Theoretical and experimental approach of multi-phase composite materials*, DAAAM International Scientific Book 2009, ISBN 978-3-901509-71-1, ISSN 1726-9687, Ed. B. Katalinic, Publisher DAAAM International Viena.
11. Motoc Luca D., Ciofoaia V. – *Predicting,measuring and tailoring thermal properties of morphological and structural modified polymeric composite materials*, Engineering the future, Ed. L. Dudas, ISBN 978-953-307-210-4, Sciyo, 2010.

ARTICLES IN JOURNALS

1. Motoc Luca D., et al., *A comparison approach on predicted and retrieved mechanical properties of Ni foams.* Metalurgia International, 2013. **18**: p. 69-72.
2. Pop, M.A., et al., *CTE assessment of various glass fibre reinforced polymer composite architectures.* Metalurgia International, 2013. **18**: p. 131-134.
3. Motoc Luca, D., *Hybrid particle/fiber polymer based composites analysis based on DMA data vs. material property predictions.* Applied Mechanics and Materials 2014: p. 101-106.
4. Motoc Luca D., Bedo, T., *An estimate of thermo-physical changes in hybrid basalt/glass fibres reinforced polymer composites*, Advanced Engineering Forum, **13**, 2015: p. 23-28.

INTERNATIONAL CONFERENCES

1. Motoc Luca, D. and A. Soica. *Mechanical behaviour of 3-phase polymeric composites subjected to static loading conditions*. in *Proceedings of the International Conference of DAAAM Baltic "Industrial Engineering"*. 2008.
2. Teodorescu-Draghicescu, H., et al., *On the elastic properties of some advanced composite laminates subjected to off-axis loading systems*. Proceedings of the 1st WSEAS International Conference on Materials Science, ed. D.K. Yfantis, et al. 2008. 40-43.
3. Teodorescu-Draghicescu, H., et al., *Some advanced symmetric composite laminates subjected to off-axis loading systems. A stiffness evaluation*, in Proceedings of the 13th International Conference Modern Technologies, Quality and Innovation: Modtech 2009 - New Face of TMCR, D. Nedelcu, L. Slatineanu, and S. Mazuru, Editors. 2009. p. 647-650.
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6. Motoc Luca, D., *A micromechanical based bounding and elastic properties estimation of multiphase polymeric composite materials*, in *The 3rd International Conference on Computational Mechanics and Virtual Engineering COMEC 2009*. 2009: Brasov. p. 399-402.
7. Cerbu C., Motoc Luca D., Ciofoaia V. - *Advantages of the using of the poliester resin to manufacturing of the composite materials based on wood flour*, Proceedings to the 20th International DAAAM Symposium "Intelligent Manufacturing & Automation: Theory, Practice & Education", 25-28 noiembrie 2009, Viena, Austria, ISSN 1726-9679, ISBN 978-3-901509-70-4, p. 1417-1418.
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11. Motoc Luca D. and C. Cerbu. *Quantifying porosity influence on metallic particle reinforced composite properties*. in *WCE 2010 - World Congress on Engineering 2010*. 2010.
12. Motoc Luca D., N. Dadirlat, and H. Teodorescu, *Novel multiphase polymeric composite structures with improved CTE designed for heating elements*. New Aspects of Fluid Mechanics, Heat Transfer and Environment, ed. N. Mastorakis, V. Mladenov, and Z. Bojkovic. 2010. 358-360.
13. Motoc Luca, D., Curtu, I, Campean, M *Environmental effects on multiphase polymeric composite materials' thermal properties*. in *14th European Conference on Composite Materials ECCM14*. 2010. Budapest: Budapest University of Technology and Economics, Department of Polymer Engineering.
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15. Motoc Luca D., *Dynamic mechanical characterization of CF/GF hybrid reinforced polymeric composite structures*. Proceedings of the ASME 11th Biennial Conference on Engineering Systems Design and Analysis ESDA, 2012, Vol 3. p. 27-32.

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17. Motoc Luca, D. and I. Curtu. *A micromechanical based approach for dynamical properties evaluation in case of polymeric composite materials*. in *Proceedings of the International Conference of DAAAM Baltic "Industrial Engineering"*. 2010.
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21. Oltean, D.I., D. Motoc Luca, and V. Luca. *Effective electrical conductivity estimation for a novel multi-phase composite material*. in *Advances in Microelectronics, Nanoelectronics & Optoelectronics MINO'09*. 2009. Istanbul, Turkey.
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23. Olteanu, I.D. and D. Motoc Luca. *Conductive polymeric composites behaviour under various loading conditions*. in Proceedings of the International Conference of DAAAM Baltic "Industrial Engineering". 2008.
24. Pirna, I., et al., *Flexural rigidity evaluation of a new sandwich structure with nonwoven polyester mat*. Proceedings of the 11th Wseas International Conference on Automatic Control, Modelling and Simulation, ed. M. Demiralp, N.A. Baykara, and N.E. Mastorakis. 2009. 234-239.
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26. Teodorescu, H., et al., *Mechanical behavior of an advanced sandwich composite structure*. New Aspects of Engineering Mechanics, Structures, Engineering Geology, ed. M.K. Nikolinakou, et al. 2008. 280-285.
27. Teodorescu-Draghicescu, H., et al., *On the elastic constants of a fibre-reinforced composite laminate*. Proceedings of the 2nd WSEAS International Conference on Engineering Mechanics, Structures and Engineering Geology, ed. N.E. Mastorakis, O. Martin, and X.J. Zheng. 2009. 155-158.
28. Teodorescu-Draghicescu, H., et al., *A homogenization method for pre-impregnated composite materials*. World Congress on Engineering 2009, Vols I and II, ed. S.I. Ao, et al. 2009. 1563-1568.
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30. Ferrandiz Bou, S., Pop, A. P., Lopez Martinez, J., Motoc Luca, D.- *Adapting to the new ECTS programme. Comparison of the evolution of the materials course in Romania and Spain.* INTEND 2011: 5th International Technology, Education and Development Conference, 2011: p. 4027-4033.
31. Motoc Luca D. – *FEM based simulation of injected bone shaped PP based composite materials*, The 4th International Conference on Advanced Composite Materials Engineering, COMAT 2012, 18th-20th October 2012, Brașov, vol. 3, p. 764-768, ISBN 978-973-131-162-3.
32. Oltean, I.D. and D.L. Motoc, *About electromagnetic behaviour of composite materials with iron powder*. 2013 8th International Symposium on Advanced Topics in Electrical Engineering. 2013.

PRESENTATIONS

Prezentări în cadrul Academiei Române, Comisia de Analiză Termică și Calorimetrie

1. *Tailoring hybrid composite architectures based on poly (furfuryl alcohol) bio-resin for enhanced temperature dependent properties* - Al 25-lea Simpozion de Analiză Termică și Calorimetrie "Eugen Segal" (2016)
2. *Thermal and fireretardant properties of flax/carbon fibers hybrid composites based on a novel cyanate ester blend* - Al 25-lea Simpozion de Analiză Termică și Calorimetrie "Eugen Segal" (2016)
3. *Dynamic mechanical properties of basalt/flax and carbon/flax hybrid polymer composites* - Al 24-lea Simpozion de Analiză Termică și Calorimetrie "Eugen Segal" (2015)
4. *Towards "all green" hybrid polymer composites tailored by the aid of DMA investigations* - Al 23-lea Simpozion de Analiză Termică și Calorimetrie "Eugen Segal" (2014).

INVITED LECTURES

Place: 30 Sept. 2013 - PYCO Fraunhofer Research Institution for Polymeric Materials and Composites and Brandenburg Technical University at Cottbus
Title: *Polymer reinforced composites: an engineering perspective*

Place: 30 August 2019 - 5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019), Roma, Italia
Title: *UV-cured di/tri(methoxy) vinyl silane modified urethane acrylate blends for optical coatings: thermal and optical properties*

Date:

20th February 2020

Prof. Motoc Luca Dana