

George-Theodor Știubianu

List of publications

1. Stiubianu, G.; Cristea, M.; Vlad, A.; Cazacu, M. Composites Based on Polysiloxanes and Ligno-celluloses, *Proceedings of the Polymer Processing Society 24th Annual Meeting ~ PPS-24*, June 15-19 Salerno (Italy), **2008**.
2. Stiubianu, G.; Cristian, G.; Racles, C.; Cazacu, M., New materials developed on the basis of cellulose and siloxane derivatives. Preparation and properties evaluation, *J. Optoelectron. Adv. Mater. Sympos.*, **2009**, 1(6), 1091–1094 (IF = 0.588).
3. Stiubianu, G.; Cazacu, M.; Cristea, M.; Vlad, A. Polysiloxane-Lignin Composites, *J. Appl. Polym. Sci.*, **2009**, 113, 2313–2321 (IF = 2.188).
4. Stiubianu, G.; Cazacu, M.; Nicolescu, A.; Hamciuc, V.; Vlad, S. Silicone-modified cellulose. Crosslinking of the cellulose acetate with 1,1,3,3-tetramethyldisiloxane by Pt-catalyzed dehydrogenative coupling, *J. Polym. Res.*, **2010**, 17, 837–845 (IF = 1.53).
5. Stiubianu, G.; Racles, C.; Cazacu, M.; Simionescu, B. C. Silicone-modified cellulose. Crosslinking of cellulose acetate with poly[dimethyl(methyl-H)siloxane] by Pt-catalyzed dehydrogenative coupling, *J. Mater. Sci.*, **2010**, 45, 4141–4150 (IF = 3.442).
6. Stiubianu, G. New Materials Developed with Lignocellulose and Siloxane Derivatives, Cazacu, M., Ed., in: *Recent Developments in Silicone-Based Materials*, Nova Science Publishers: Hauppauge, New York, **2010**.
7. Stiubianu, G.; Racles, C.; Nistor, A.; Cazacu, M.; Simionescu, B. C., Cellulose modification by crosslinking with siloxane diacids, *Cell. Chem. Technol.*, **2011**, 45(3-4), 157–162 (IF = 0.857)
8. Stiubianu, G.; Nistor, A.; Vlad, A.; Cazacu, M., Modification of water sorption capacity of polydimethylsiloxane based composites by incorporation of lignin, *Materiale Plastice*, **2011**, 48, 289-294 (IF = 1.393).
9. Nistor, A.; Știubianu, G.; Racles, C.; Cazacu, M. Evaluation of the water sorption capacity of some polymeric materials by dynamic vapour sorption, *Materiale Plastice*, **2011**, 48, 33-37 (IF = 1.393).
10. Stiubianu, G.; Nicolescu, A.; Nistor, A.; Cazacu, M.; Varganici, C.; Simionescu, B. C., Chemical modification of cellulose acetate by allylation and crosslinking with siloxane derivatives, *Polym. Int.*, **2012**, 61(7), 1115–1126 (IF = 2.433).
11. Cazacu, M.; Racles, C.; Zaltariov, M.-F.; Dumitriu, Ana-Maria C.; Ignat, M.; Ovezza, D.; Stiubianu, G. Electroactive composites based on polydimethylsiloxane and some new metal complexes, *Smart Mater. Struct.*, **2013**, 22, 104008, 8 p. (IF = 3.543).
12. Bele, A.; Cazacu, M.; Stiubianu, G.; Vlad, S. Silicone-barium titanate composites with increased electromechanical sensitivity. The effects of the filler morphology, *RSC Adv.*, **2014**, 4, 58522-58529 (IF = 3.049).

13. Vertechy, R.; Fontana, M.; Stiubianu, G.; Cazacu, M. Open-Access Dielectric Elastomer Material Database, *Proc. SPIE, Electroactive Polymer Actuators and Devices (EAPAD)* **Mar 2014**, 90561R (8 March 2014), Editor: Yoseph Bar-Cohen.
14. Bele, A.; Cazacu, M.; Stiubianu, G.; Vlad, S.; Ignat, M. Polydimethylsiloxane–barium titanate composites: Preparation and evaluation of the morphology, moisture, thermal, mechanical and dielectric behavior, *Composites Part B* **2015**, 68, 237–245 (IF = 6.864).
15. Stiubianu, G.; Bele, A.; Tugui, C.; Musteata, V. New dielectric elastomers with improved properties for energy harvesting and actuation, *Proc. SPIE, 9258, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VII*, **2015**, 925808.
16. Iacob, M.; Stiubianu, G.; Tugui, C.; Cazacu, M. Goethite nanorods as cheap and effective filler for siloxane nanocomposite elastomers, *RSC Adv.*, **2015**, 5, 45439-45446 (IF = 3.049)
17. Iacob, M.; Tugui, C.; Sirbu, D.; Stiubianu, G.; Cazacu, M. Superparamagnetic amorphous iron oxide nanowires self-assembled into ordered layered structures, *RSC Adv.*, **2015**, 5, 62563-62570 (IF = 3.049).
18. Stiubianu, G.; Bele, A.; Cazacu, M.; Racles, C.; Vlad, S.; Ignat, M. Dielectric silicone elastomers with mixed ceramic nanoparticles, *Mater. Res. Bull.*, **2015**, 71, 67-74 (IF = 3.355).
19. Tugui, C.; Stiubianu, G.; Iacob, M.; Ursu, C.; Bele, A.; Vlad, S.; Cazacu, M. Bimodal silicone interpenetrating networks sequentially built as electroactive dielectric elastomers, *J. Mater. Chem. C*, **2015**, 3, 8963-8969 (IF = 6.641).
20. Bele, A.; Cazacu, M.; Racles, C.; Stiubianu, G.; Ovezza, D.; Ignat, M. Tuning the Electromechanical Properties of Silicones by Crosslinking Agent, *Adv. Eng. Mater.*, **2015**, 17(9), 1302-1312 (IF = 2.906).
21. Stiubianu, G.; Dumitriu, A.-M.-C.; Varganici, C.-D.; Tugui, C.; Iacob, M.; Bele, A.; Cazacu, M. Changes induced in the properties of dielectric silicone elastomers by the incorporation of transition metal complexes, *High Perform. Polym.*, **2016**, 0954008315610393 (IF = 1.584).
22. Bele, A.; Stiubianu, G.; Varganici, C.-D.; Ignat, M.; Cazacu, M. Silicone dielectric elastomers based on radical crosslinked high molecular weight polydimethylsiloxane co-filled with silica and barium titanate, *J. Mater. Sci.*, **2015**, 50(20), 6822-6832 (IF = 3.442).
23. Tugui, C.; Cazacu, M.; Sacarescu, L.; Bele, A.; Stiubianu, G.; Ursu, C.; Racles, C. Full silicone interpenetrating bi-networks with different organic groups attached to the silicon atoms, *Polymer*, **2015**, 77, 312-322 (IF = 3.771).
24. Bele, A.; Stiubianu, G.; Vlad, S.; Tugui, C.; Varganici, C.-D.; Matricala, A.-L.; Cazacu, M. Aging behavior of the silicone dielectric elastomers in simulated marine environment, *RSC Adv.*, **2016**, 6(11), 8941-8955 (IF = 3.049).
25. Stiubianu, G.; Soroceanu, A.; Varganici, C.-D.; Tugui, C.; Cazacu, M. Dielectric elastomers based on silicones filled with transitional metal complexes, *Composites Part B* **2016**, 93, 236-243 (IF = 6.864).

26. Iacob, M.; Racles, C.; Tugui, C.; Stiubianu, G.; Bele, A.; Sacarescu, L.; Timpu, D.; Cazacu, M. From iron coordination compounds to metal oxide nanoparticles, *Beilstein J. Nanotechnol.* **2016**, 7(1), 2074-2087 (IF = 2.27).
27. Bele, A.; Tugui, C.; Sacarescu, L.; Iacob, M.; Stiubianu, G.; Dascalu, M.; Racles, C.; Cazacu, M. Ceramic nanotubes-based elastomer composites for applications in electromechanical transducers, *Mater. Des.* **2018**, 120-131 (IF = 5.77).
28. Chengyi, X.; Stiubianu, G.; Gorodetsky, A. A. Adaptive infrared-reflecting systems inspired by cephalopods, *Science* **2018**, 359(6383), 1495-1500 (IF = 41.037).
29. Bele, A.; Tugui, C.; Asandulesa, M.; Ionita, D.; Vasiliu, L.; Stiubianu, G.; Iacob, M.; Racles C.; Cazacu, M. Conductive stretchable composites properly engineered to develop highly compliant electrodes for dielectric elastomer actuators, *Smart Mater. Struct.* **2018**, 27, 105005 (IF = 3.543).
30. Leung, E. M.; Escobar, M. C.; Stiubianu, G. T.; Jim S. R.; Vyatskikh, A. L.; Feng, Z.; Garner, N.; Patel, P.; Naughton, K. L.; Follador, M.; Karshalev, E.; Trexler, M. D.; Gorodetsky, A. A. A Dynamic Thermoregulatory Material Inspired by Squid Skin, *Nat. Commun.* **2019**, 10, 1947, 10 pp. (IF = 17.69).
31. Tugui, C.; Stiubianu, G. T.; Serbulea, M. S.; Cazacu, M. Silicone dielectric elastomers optimized by crosslinking pattern—a simple approach to high-performance actuators, *Polym. Chem.* **2020**, 11, 3271-3284 (IF = 5.582).
32. Stiubianu, G. T. Polymer Nanocomposites for Lowering Heating and Cooling Loads in Buildings, *Multidisciplinary Digital Publishing Institute Proceedings*, **2020**, 69, 35.
33. Cazacu, M.; Racles, C.; Zaltariov, M. F.; Dascalu, M.; Bele, A.; Tugui, C.; Bargaan, A.; Stiubianu, G. From Amorphous Silicones to Si-Containing Highly Ordered Polymers: Some Romanian Contributions in the field, *Polymers*, **2021**, 13, 1605 (IF = 4.329).
34. Soroceanu, A.; Stiubianu, G. T. Siloxane matrix molecular weight influences the properties of nanocomposites based on metal complexes and dielectric elastomer, *Materials*, **2021**, 14, 3352, 17 pp. (IF = 3.623).
35. Dascalu, M.; Iacob, M.; Tugui, C.; Bele, A.; Stiubianu, G. T.; Racles, C.; Cazacu, M. Octakis (phenyl)-T8-silsesquioxane-IFilled silicone elastomers with enhanced electromechanical capability, *J. Appl. Polym. Sci.*, **2021**, 138, 50161 (IF = 3.125).
36. Stiubianu, G.; Bargaan, A.; Cazacu, M. Chapter 1. Wood-Based Biopolymers as Active Elements in New Green Silicone Composites, Stoica, I., Mukbaniani, O., Rawat, N. K., Haghi, A. K., Eds., in: Applications of Biodegradable and Bio-Based Polymers for Human Health and a Cleaner Environment, 1st Edition, *Imprint Apple Academic Press, New York*, **2021**, p. 50.
37. Iacob, M.; Tiron, V.; Stiubianu, G. T.; Dascalu, M.; Hernandez, L.; Varganici, C.-D.; Tugui, C.; Cazacu, M. Bentonite as an active natural filler for silicone leading to piezoelectric-like response material, *J. Mater. Res. Technol.*, **2022**, 17, 79-94 (IF = 5.039).

38. Bele, A.; Dascalu, M.; Tugui, C.; Stiubianu, G.-T.; Varganici, C. D.; Racles, C.; Cazacu, M.; Skov A. L. Soft silicone elastomers exhibiting large actuation strains, *J. Appl. Polym. Sci.*, **2022**, 139, 52261 (IF = 3.125).
39. Dascalu, M.; Stoica, A. C.; Bele, A.; Macsim, A. M.; Bargan, A.; Varganici, C. D.; Stiubianu, G. T.; Racles, C.; Shova, S.; Cazacu, M. Octakis(Carboxyalkyl-Thioethyl)Silsesquioxanes and Derived Metal Complexes: Synthesis, Characterization and Catalytic Activity Assessments. *J. Inorg. Organomet. Polym.*, **2022** (IF = 3.543).
40. Ciubotaru, B.-I.; Zaltariov, M. F.; Tugui, C.; Stoleru, I.-E.; Peptanariu, D.; Stiubianu, G. T.; Vornicu, N.; Cazacu, M. Silicones with different crosslinking patterns: assessment from the perspective of their suitability for biomaterials, *Surf. Interfaces*, **2022**, 7, 102168 (IF = 1.607).
41. Stiubianu, G. T.; Bele, A.; Grigoras, M.; Tugui, C.; Ciubotaru, B.-I.; Zaltariov, M. F.; Borza, F.; Bujoreanu, L.-G.; Cazacu, C. Scalable Silicone Composites for Thermal Management in Flexible Stretchable Electronics, *Batteries*, **2022**, 8, 95 (IF = 4.14).
42. Stiubianu, G. T.; Bele, A.; Bargan, A.; Potolinca, V. O.; Asandulesa, M.; Tugui, C.; Tiron, V.; Hamciuc, C.; Dascalu, M.; Cazacu, M. All-Polymer Piezo-Composites for Scalable Energy Harvesting and Sensing Devices, *Molecules*, **2022**, 27, 8524 (IF = 4.93).
43. Bargan, A.; Stiubianu, G.; Dascalu, M. C.; Cojocaru, C.; Macsim, A. M.; Bele, A.; Soroceanu, A. Membrane pe bază de polisulfone cu silsesquioxani funcționalizați. Caracterizare și perspective pentru aplicații de mediu, *Patrimoniul cultural de ieri–implicații în dezvoltarea societății durabile de mâine*, **2023**, 178-180.
44. Cazacu, M.; Dascalu, M.; Stiubianu, G. T.; Bele, A.; Tugui, C.; Racles, C. From passive to emerging smart silicones, *Rev. Chem. Eng.*, **2023**, 39, 941-1003 (IF = 4.7).