

Списък на научните публикации
на
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1. E. Kamenska, N. Koseva, G. Georgiev, E. Vasileva
Determination of Unreacted Monomers in Radical Copolymerization of Styrene with Methyl Methacrylate and of Acrylic Acid with 1-Vinyl-2-Pyrrolidone by Means of Methoxymercurization and Bromination of Double Bonds
Analytical Laboratory, **5**, 104 (1996)
2. G. S. Georgiev, L. K. Christov, N. S. Koseva, E. B. Kamenska, E. Vassileva
A Qualitative Criterion Proving the Participation of Comonomer Complexes in the Chain Propagation of Radical Copolymerization
Polym. Int., **45**, 366 (1998)
3. P. G. Dalev, E. Vassileva, J. E. Mark, S. Fakirov
Enzymatic Degradation of Formaldehyde - Crosslinked Gelatin
Biotechnol. Tech. **12**, 889 (1998)
4. R. D. Patil, J. E. Mark, P. G. Dalev, E. Vassileva, S. Fakirov
Preparation, Solubilization and Biodegradation of Crosslinked Gelatin
Polym. Prep., **39**, 717 (1998)
5. E. Vassileva, F. J. Balta Calleja, M. Esperanza Cagiao, S. Fakirov
Gelatin Films with Very High Surface Hardness
Macromol. Rapid Commun., **19**, 451 (1998)
6. E. Vassileva, F. J. Balta-Calleja, M. Esperanza Cagiao, S. Fakirov
New Aspects of Thermal Treatment Effects on Gelatin Films Studied by Microhardness
Macromol. Chem. Phys., **200**, 405 (1999)
7. A. A. Apostolov, S. Fakirov, E. Vassileva, R. Patil, J. E. Mark
DSC and TGA Studies of the Behavior of Water in Native and Crosslinked Gelatin
J. Appl. Polym. Sci., **71**, 465 (1999)
8. S. Fakirov, M. E. Cagiao, F. J. Balta-Calleja, D. Sapundjieva, E. Vassileva
Melting of Gelatin Crystals below Glass Transition Temperature: A Direct Crystal - Glass Transition as Revealed by Microhardness
Intern. J. Polymeric Mater., **43**, 195 (1999)

9. R. D. Patil, J. E. Mark, A. A. Apostolov, E. Vassileva, S. Fakirov
Crystallization of Water in Some Crosslinked Gelatins
Eur. Polym. J., **36**, 1035 (2000)
10. R. D. Patil, P. G. Dalev, J. E. Mark, E. Vassileva, S. Fakirov
Biodegradation of Chemically-Modified Gelatin Films in Lake and River Waters
J. Appl. Polym. Sci., **76**, 29 (2000)
11. A. A. Apostolov, D. Boneva, E. Vassileva, J. E. Mark, S. Fakirov
Mechanical Properties of Native and Crosslinked Gelatin in a Bending Deformation
J. Appl. Polym. Sci., **76**, 2041 (2000)
12. P. G. Dalev, R. D. Patil, J. E. Mark, E. Vassileva, S. Fakirov
Biodegradation of Chemically-Modified Gelatin Films in Soil
J. Appl. Polym. Sci., **78**, 1341 (2000)
13. R. D. Patil, J. E. Mark, P. G. Dalev, E. Vassileva, S. Fakirov
Solubilization and Biodegradation of Crosslinked Gelatins by Alkaline Proteinase
Polymer-Plastic Tech. & Eng. 34(9), 683-697 (2000)
14. P. Dalev, E. Staromanova, D. Dalev, R. D. Patil, J. E. Mark, E. Vassileva, S. Fakirov,
Biodegradation of Chemically Modified Gelatin Films in a Stimulated Natural Environment
Biotechnology, Biotechnology equipment 15(2), 116-123, (2001)
15. E. Vassileva, A. A. Apostolov, M. Evstatiev, I. Pashkuleva, K. Friedrich
Effect of processing conditions on properties of pretreated gelatin samples
Intern. J. Polym. Mater. **47**, 1 (2001)
16. Z. Kiflie, S. Piccarolo, E. Vassileva
Influence of Physical Cross Links in Amorphous PET on Room Temperature Ageing
Macromolecular Symposia **185**(1) 35-51 (2002)
17. S. Piccarolo, E. Vassileva, Z. Kiflie, "Physical Crosslinks in Amorphous PET, Influence of Cooling Rate and Ageing" in "Polymer Crystallization: Observations, Concepts and Interpretations" G. Reiter and J.-U. Sommer Eds., p. 325, Series: *Lecture Notes in Physics*, vol. 606, 2003, Springer Verlag.

18. E. Vassileva, K. Friedrich
“Epoxy/Polymer Grafted Al₂O₃ Nanocomposites – Mechanical Properties and Wear Resistance”
Nanoscience&Nanotechnology, **3**, 161-164 (2003)
19. E. Vassileva, K. Friedrich
“Epoxy/Alumina Nanoparticle Composites: I. Dynamic Mechanical Behaviour”
Journal of Applied Polymer Science **89**(14) 3774-3785 (2003)
20. E. Vassileva, K. Friedrich
“Epoxy/Alumina Nanoparticle Composites. II. Influence of Silane Coupling Agent Treatment on Mechanical Performance and Wear Resistance”
Journal of Applied Polymer Science **101**(6) 4410-4417 (2006)
21. G. S. Georgiev, E. B. Kamenska, E. D. Vassileva, I. P. Kamenova, V. T. Georgieva, S. B. Iliev, I. A. Ivanov
“Self-Assembly, Antipolyelectrolyte Effect, and Nonbiofouling Properties of Polyzwitterions”
Biomacromolecules **7**, 1329-1334 (2006)
22. V. Atanasov, E. Vassileva, I. Kamenova, I. Ivanov, G. Georgiev
“Double hydrophilic block zwitterionic copolymer as an acid phosphatase folding helper”
Ann. University Sofia- Chem. **98-99**, 327 (2006)
23. G. Georgiev, E. Kamenska, E. Vassileva, I. Kamenova, V. Georgieva, S. B. Iliev, I. Ivanov
“Properties and biomedical application of Polyzwitterions”
Ann. University Sofia- Chem. **98-99**, 305 (2006)
24. George Georgiev, Konstantina Dyankova, Elena Vassileva, Klaus Friedrich
“Synthesis and some Mechanical Properties of Polysulfobetaine – Polyacrylamide Double Networks” *e-polymers* **054**, 2006

25. Kamenska, E., E. Vassileva, I. Kamenova, A. Tzoneva, V. Georgieva, S. Iliev, G. Georgiev
 “A new approach to the description and control of the unique biocompatibility of polyzwitterions”
Comptes rendus de L'Academie des Sciences, Chem. **38**, 49 (2006)
26. D. Rabadjieva, E. Vassileva, S. Tepavicharova, S. Shopova, R. Titorenkova
 “Crystallization of Nanosized Calcium Phosphates in Hydrogel Matrix of Guar Gum and Xanthan Gum”
Nanoscience&Nanotechnology, **10**, 175-177 (2010)
27. E. D. Vassileva, N. S. Koseva
 “Sonochemically Born Proteinaceous Micro- And Nanocapsules”
Advances in Protein Chemistry and Structural Biology **80**, 205 (2010)
28. M. Simeonov, I. Yankova, A. A. Apostolov, E. Vassileva, D. Rabadjieva, S. Tepavitcharova
 “Calcium Phosphates Precipitation In Gelatin Nanocapsules Colloidal System”
Nanoscience&Nanotechnology, **11**, 203-206 (2011)
29. P. S. Shestakova, R. Willem, E. Vassileva
 ”Elucidation of the chemical and morphological structure of Double Network Hydrogels by HRMAS-NMR”
Chemistry – A European Journal **17**(52), 14867-77 (2011).
30. M. Simeonov, B. Kostova, and E. Vassileva
 „Interpenetrating Polymer Networks of Poly(Acrylic Acid) and Polyacrylamide for Sustained Verapamil Hydrochloride Release“
Macromol. Symp. 2015, 358: 225–231
31. M. Simeonov, A. A. Apostolov, E. Vassileva
 “In Situ Calcium Phosphates Deposition in Hydrogels of Poly(Acrylic Acid) Polyacrylamide Interpenetrating Polymer Networks”
RSC Advances **6**, 16274-6284 (2016), DOI: 10.1039/C5RA26066C

32. M. Simeonov, B. Kostova, and E.Vassileva
„Interpenetrating polymer networks of poly(methacrylic acid) and polyacrylamide: synthesis, characterization and potential application for sustained drug delivery“
RSC Adv., 2016, **6**, 64239-64246
33. Marin Simeonov, Antonia Monova, Bistra Kostova, Elena Vassileva
“Drug transport in stimuli responsive acrylic and methacrylic interpenetrating polymer networks”
J. Appl. Polym. Sci. 2017, 134, 45380.
34. Ivan Lesov, Zhulieta Valkova, Elena Vassileva, George S. Georgiev, Konstans Ruseva, Marin Simeonov, Slavka Tcholakova, Nikolai D. Denkov, and Stoyan K. Smoukov
“Bottom-Up Synthesis of Polymeric Micro- and Nanoparticles with Regular Anisotropic Shapes”
Macromolecules 2018 51 (19), 7456-7462 DOI: 10.1021/acs.macromol.8b00529
35. K. Ruseva, P. Nedkov, R. Aleksandrova, D. Dinev, P. Shestakova, P. Hristov, E. Vassileva
“Polyzwitterionic hydrogels as wound dressings with enzymatic debridement functionality for highly exuding wounds”
Polymer International **68**, 1626-1635 (2019) (IF 2.352, Q1)
36. Konstans Ruseva, Kristina Ivanova, Katerina Todorova, Margarita Gabrashanska, Dolores Hinojosa-Caballero, Tzanko Tzanov, Elena Vassileva
“Poly(sulfobetaine methacrylate)/poly(ethylene glycol) hydrogels for chronic wounds management”
European Polymer Journal, **117**, 391-401 (2019)
37. K. Todorova, V. Nanev, I. Vladov, P. Dimitrov, E. Vassileva, D. Nikolova, K. Ruseva, E. Dyulgerova Taneva, R. Vassileva, M. Gabrashanska
“Newly Synthesized Polymer Hydrogels and Hydroxyapatite Nanoparticles (nHAP) for Biomedical Application: Histological and Biomedical Studies in Rats”
Acta morphologica et anthropologica 26(1-2) 44 – 51 (2019)

38. Marin Simeonov, Angela Gussiyska, Jasmina Mironova, Denitsa Nikolova, Anton Apostolov, K. Sezanova, Elena Dyulgerova, Elena Vassileva
“Novel hybrid chitosan/calcium phosphates microgels for remineralization of demineralized enamel - a model study”
European Polymer Journal, **119**, 14-21 (2019) (IF 3.741, Q1)
39. K. Ruseva, K. Ivanova, K. Todorova, I. Vladov, V. Nanev, T. Tzanov, D. Hinojosa-Caballero, M. Argirova, E. Vassileva
“Antibiofilm poly(carboxybetaine methacrylate) hydrogels for chronic wounds dressings”
European Polymer Journal, 132, 109673, 2020; 10.1016/j.eurpolymj.2020.109673
40. Iveta Yankova, Pavletta Shestakova, Rui L. Reis, Iva Pashkuleva, Elena Vassileva
“Gelatin micro- and nanocapsules obtained via sonochemical method”
J. Appl. Polym. Sci. 2020, e49584; <https://doi.org/10.1002/app.49584>
41. D. Nikolova, M. Simeonov, Ch. Tzachev, A. Apostolov, L. Christov, E. Vassileva
“Polyelectrolyte Complexes of Chitosan and Sodium Alginate as Drug Delivery System for Diclofenac Sodium”
Polymer International (2022) <https://doi.org/10.1002/pi.6273>
42. D. Nikolova, K. Ruseva, Ch. Tzachev, L. Christov, E. Vassileva
“Novel poly(sulfobetaine methacrylate) based carriers as potential ocular drug delivery systems for timolol maleate”
Polymer International (2022) <https://doi.org/10.1002/pi.6368>
43. K. Ruseva, E. Vassileva
“*Polyzwitterionic Hydrogels as Wound Dressing Materials*” Chapter 9 in
“Multifunctional Hydrogels for Biomedical Applications” Editors: Ricardo A. Pires, Iva Pashkuleva, Rui L. Reis, 2022 Wiley-VCH GmbH
<https://doi.org/10.1002/9783527825820.ch9>
44. A. Bonchev, M. Simeonov, P. Shestakova, R. Vasileva, R. Titorenkova, A. Apostolov, E. Dyulgerova, E. Vassileva
“Bioinspired Remineralization of Artificial Caries Lesions Using PDMAEMA/Carbomer/Calcium Phosphates Hybrid Microgels”

Gels, **8**(10), 2310-2861 (2022), [10.3390/gels8100681](https://doi.org/10.3390/gels8100681)

45. K. Grigorova, B. Kostova, D. Georgieva, A. Apostolov, E. Vassileva
“Polyacrylamide/poly(2-(dimethylamino) Ethyl Methacrylate) Interpenetrating Polymer Networks as Drug Delivery Systems for Diclofenac Sodium”
Gels, **8** (12) 780 (2022), [10.3390/gels8120780](https://doi.org/10.3390/gels8120780)
46. K. Ruseva, K. Todorova, T. Zhivkova, R. Milcheva, D. Ivanov, P. Dimitrov, R. Alexandrova, E. Vassileva
„Triple stimuli responsive interpenetrating poly(carboxybetaine methacrylate)/poly(sulfobetaine methacrylate) networks“
Gels, **8** (12) 90 (2023), <https://doi.org/10.3390/gels9020090>
47. M. Simeonov, B. Kostova, E. Vassileva
“Interpenetrating polymer networks of polyacrylamide with polyacrylic and polymethacrylic acids and their application for modified drug delivery – a flash review”
Pharmaceutical Nanotechnology **11**(1) (2023)
48. D. Nikolova, C. Tzachev, L. Christov, E. D Vassileva
“Poly(Sulfobetaine Methacrylate-co-Vinyl Pyrrolidone) Hydrogels as Potential Contact Lenses Delivery Systems for Timolol Maleate“
Gels **9**(2):114 (2023), [10.3390/gels9020114](https://doi.org/10.3390/gels9020114)
49. D. Georgieva, D. Nikolova, E. Vassileva, B. Kostova
“Chitosan-Based Nanoparticles for Targeted Nasal Galantamine Delivery as a Promising Tool in Alzheimer’s Disease Therapy”
Pharmaceutics **15**(3), 829 (2023), <https://doi.org/10.3390/pharmaceutics15030829>
50. M. Simeonov, A. A. Apostolov, M. Georgieva, D. Tzankov, E. Vassileva
“Poly(acrylic acid-co-acrylamide)/Polyacrylamide pIPNs/Magnetite Composite Hydrogels: Synthesis and Characterization”
Gels **9**(5), 365 2023 [10.3390/gels9050365](https://doi.org/10.3390/gels9050365)