

Tatiana BUDTOVA**List of publications**

1. V.P. BUDTOV, T.V. BUDTOVA, Yu.S. MANUCHAROV, S.A. MANUCHAROVA
"The choice of general parameters for the analysis of phase diagrams in solutions",
Vysokomolec. Soed. (in Russian), **A30**, 2339 (1988).
2. N.G. BELNIKEVICH, T.V. BUDTOVA, N.P. IVANOVA, E.F. PANARIN, YU.N. PANOV,
S.YA. FRENKEL
"Complex formation in aqueous solutions of mixtures of polyacrylic acid with polyvinyl
alcohol and its copolymers", *Vysokomolec. Soed.* (in Russian), **A31**, 1691 (1989).
3. V.P. BUDTOV, T.V. BUDTOVA, S.YA. FRENKEL
"On swelling of polyelectrolyte chains with the change of concentration of solutions",
Vysokomolekulyarnye Soedineniya Seriya A, **32** (5), 1100 (1990).
4. T.V. BUDTOVA, N.G. BELNIKEVICH, N.P. IVANOVA, V.A. KUZNETSOVA, E.F.
PANARIN, YU.N. PANOV, A.YA. SOROKIN, S.YA. FRENKEL
"Dependence of the formation of interpolymer complexes in aqueous-solutions of polyacrylic-
acid copolymers of vinyl alcohol with vinyl-acetate mixtures on molecular-parameters of
components and their total concentration" *Vysokomolekulyarnye Soedineniya Seriya A*, **33** (8),
1664, (1991).
5. T.V. BUDTOVA, N.G. BELNIKEVICH, V.M. BELYAEV, YU.N. PANOV, S.YA.
FRENKEL
"On features of complex-formation between polyacrylic-acid and cellulose ester"
Vysokomolekulyarnye Soedineniya Seriya B, **33** (7), 520 (1991).
6. T.V. BUDTOVA, N.G. BELNIKEVICH, A.L. BUYANOV, L.G. REVELSKAYA, G.A.
PETROPAVLOVSKY, S.YA. FRENKEL
"Slow reversible collapse of gels based on copolymers of acrylamide and acrylic acid", *Acta
Polymerica*, **42(4)**, 160 (1991).
7. T.V. BUDTOVA, S.YA. FRENKEL
"Cooperative effect in the interaction of hydrogels with solutions of polyvalent metals"
Vysokomolekulyarnye Soedineniya Seriya B, **33** (11), 856 (1991).
8. T.V. BUDTOVA, N.G. BELNIKEVICH, I.E. SULEIMENOV, S.YA. FRENKEL
"Redistribution of the low-molecular metals salts concentration in the presence of strongly
swelled polyelectrolyte hydrogels" *Vysokomolekulyarnye Soedineniya Seriya A*, **34** (5), 100
(1992).

9. T.V. BUDTOVA, I.E. SULEIMENOV, S.YA. FRENKEL
"Polyelectrolyte-hydrogel swelling mechanism" *Journal of Applied Chemistry of the USSR*, **65** (6), 1197 (1992).
10. T.V. BUDTOVA, I.E. SULEIMENOV, S.YA. FRENKEL
"Behavior of Strongly Swelling Polyelectrolyte Hydrogels in Solutions of Linear-Polymers", *Journal of Applied Chemistry of the USSR*, **65** (11), 2175 (1992)
11. N.G.BELNIKEVICH, T.V.BUDTOVA, N.S.NESTEROVA, YU.N.PANOV, S.YA.FRENKEL
"Usage of the viscometric method of determination of intermolecular interaction constants as a test of complex-formation" *Vysokomolekulyarnye Soedineniya Seriya A*, **34**, 152 (1992).
12. T.V.BUDTOVA, I.E.SULEIMENOV, S.YA.FRENKEL
"On the swelling of polyelectrolyte hydrogels in solutions of linear-polymers", *Vysokomolekulyarnye Soedineniya Seriya A & Seriya B*, **35** (1), A93 (1993).
13. T.V.BUDTOVA, N.G.BELNIKEVICH, I.E.SULEIMENOV, S.YA.FRENKEL
"Concentration redistribution of low molecular weight salts of metals in the presence of strongly swelling polyelectrolyte hydrogels", *Polymer*, **34**, 5154-5156 (1993).
14. T.V.BUDTOVA, I.E.SULEIMENOV, S.YA.FRENKEL
"Interpolymer complex formation of some non-ionogenic polymers with linear and cross-linked polyacrylic acid", *J. Polym. Sci: Part A: Polym. Chem.*, **32**, 281 (1994).
15. T.V.BUDTOVA, V.P.BUDTOV, P.NAVARD, S.YA.FRENKEL
"Rheological properties of highly swollen polyelectrolyte suspensions", *J. Appl. Polym Sci.*, **52**, 721 (1994).
16. T.V.BUDTOVA, N.G.BELNIKEVICH, O.V.KALLISTOV, S.YA.FRENKEL
"Some Correlations of structural parameters of interpolymeric complexes", *Russian Journal of Applied Chemistry*, **67**, 397 (1994).
17. O.V.NIKOLAEVA, T.V.BUDTOVA, N.G.BELNIKEVICH, S.YA.FRENKEL
"Rheological behavior of aqueous-solutions of certain electrolytes" *Russian Journal of Applied Chemistry*, **67**, 1083 (1994).
18. T.BUDTOVA, I.SULEIMENOV, S.FRENKEL
"Electrokinetics of contraction of a polyelectrolyte hydrogel under the influence of constant electric current", *Polymer Gels and Networks*, **3**, 387 (1995).
19. T.BUDTOVA, P.NAVARD
"Polyelectrolyte hydrogel swelling in a concentrated polymer solution", *Macromolecules*, **28**, 1714 (1995).
20. O.BIGANSKA, T.BUDTOVA, E.PEUVREL-DISDIER, P.NAVARD
"Small-angle scattering of polarized light. V: Liquid crystalline droplets in an isotropic polymer", *Mol. Cryst. Liq. Cryst.*, **261**, 167 (1995).

21. T.BUDTOVA, I.SULEIMENOV, S.FRENKEL
"Peculiarities of kinetics of the polyelectrolyte hydrogel collapse in solutions of copper sulphate", *Polymer*, **36**, 2055-2058 (1995).
22. T.V.BUDTOVA, I.E.SULEIMENOV, S.Ya.FRENKEL
"The diffusion approach to description of swelling of polyelectrolyte hydrogels", *Vysokomolekulyarnye Soedineniya Seriya a & Seriya B*, **37 (1)**, 10 (1995).
23. T.BUDTOVA, I.SULEIMENOV
"Physical principles of using polyelectrolyte hydrogels for purifying and enrichment technologies", *J. Appl. Polym. Sci.*, **57**, 1653 (1995).
24. T.V.BUDTOVA, I.E.SULEIMENOV, D.A.BICHUTSKII, S.Ya.FRENKEL
"Redistribution of the low molecular mass acid between polyelectrolyte hydrogel and solution", *Vysokomolekulyarnye Soedineniya Seriya a & Seriya B*, **37 (6)**, 646-650 (1995).
25. T.V.BUDTOVA, I.E.SULEIMENOV, YU.A.TOLMACHEV
"Adaptive optical systems based of highly swelling polyelectrolyte hydrogels», *Optics of Atmosphere and Ocean (in Russian)*, **8(11)**, 1662 (1995).
26. O.V.NIKOLAEVA, Z.F.ZOOLSHOEV, T.V.BUDTOVA, YU.V.BRESTKIN, S.YA.FRENKEL
"Rheological behavior of polymer-solutions, forming interpolymer complexes", *Vysokomolekulyarnye Soedineniya Seriya a & Seriya B*, **A37 (11)**, 519, (1995).
27. T.BUDTOVA, P.NAVARD
"Swelling dynamics of cross-linked polyacrylic acid and poly(acrylate-co-acrylic acid) gel in aqueous solutions of hydroxypropylcellulose", *Macromolecules*, **29**, 3931-3936 (1996).
doi.org/10.1021/ma951507a
28. T.BUDTOVA, A.VILESOV, V.BERTSEV, G.ELIKINA, I.SULEIMENOV, YU.TOLMACHEV
"New optical properties of polyelectrolyte hydrogels", *Macromolecular Chemistry, Rapid Communications*, **17**, 87 (1996).
29. G.EVMENENKO, T.BUDTOVA, A.BUYANOV, S.FRENKEL
"Structure of polyelectrolyte hydrogels studied by SANS", *Polymer*, **37**, 5499 (1996).
30. J.MAUGEY, T.BUDTOVA, P.NAVARD
"A light scattering study of phase separation in polymer dispersed liquid crystal composites", *The Wiley Polymer Network Group Review Series "Chemical and Physical Networks. Formation and Control of Properties"*, Ed. by K. te Nijenhuis and W.J.Mijs, John Wiley & Sons, v. 1, p. 411 (1997).
31. T.BUDTOVA, P.NAVARD
"Swelling dynamics of a polyelectrolyte hydrogel in different aqueous media", *The Wiley Polymer Network Group Review Series "Chemical and Physical Networks. Formation and*

- Control of Properties*", Ed. by K. te Nijenhuis and W.J.Mijs, John Wiley & Sons, v. 1, p. 453 (1997).
32. T.BUDTOVA, I.SULEIMENOV
"Swelling behaviour of a polyelectrolyte network under load", *Polymer*, **38**, 5947 (1997).
 33. T.V.BUDTOVA, D.A.BICHUTSKII, A.L.KURANOV, I.E.SULEIMENOV
" Reversive swelling of hydrogel in salts of polyvalent metals", *Russian Journal of Applied Chemistry*, **70** (3), 490 (1997).
 34. T.BUDTOVA, I.SULEIMENOV, S.FRENKEL,
" High-swelling polymer hydrogels: Certain present-day problems and prospects", a review in *Russian Journal of Applied Chemistry*, **70** (4), 529 (1997).
 35. T.BUDTOVA, P.NAVARD
"Swelling-induced birefringence of a polyelectrolyte gel strongly interacting with metal ions", *Macromolecules*, **30**, 6556 (1997).
 36. T.BUDTOVA
"Absorption/release of polyvalent metal ions by a polyelectrolyte gel", *J.Controlled Release*, **54**(3), 305-312 (1998).
 37. N.G.BELNIKEVICH, E.F.PANARIN, O.V.NAZAROVA, T.V.BUDTOVA
"Sorption characteristics of interpolymers formed in reaction of N-vinylpyrrolidone copolymers with vinylamine and acrolein", *Russian Journal of Applied Chemistry* **71** (4), 674 (1998).
 38. T.BUDTOVA, P.NAVARD
"Swelling kinetics of a polyelectrolyte gel in water and salt solution. Coexistence of swollen and collapsed phases", *Macromolecules*, **31**, 8845-8850 (1998).
 39. G.EVMENENKO, V.ALEXEEV, T.BUDTOVA, A.BUYANOV, S.FRENKEL
"Swelling induced structure changes of polyelectrolyte hydrogels", *Polymer*, **40**, 2981 (1999).
 40. O.NIKOLAEVA, T.BUDTOVA, YU.BRESTKIN, Z.ZOOLSHOEV, S.FRENKEL
"Rheological properties of an interpolymer complex formed between polyacrylic acid and methylcellulose", *J. Appl. Polym. Sci.*, **72**, 1523-1528 (1999).
 41. G.A.EVMENENKO, T.V.BUDTOVA, A.L.BUYANOV, V.L.ALEXEEV, S.YA.FRENKEL
"Studies of structure changes of a polyelectrolyte hydrogel immersed in water-salt solutions by SANS", *Poverkhnost' (Surface, in Russian)*, **3**, 29 (1999).
 42. O.NIKOLAEVA, T.BUDTOVA, L.M.KALJUZHNYAYA, N.G.BEL'NIKEVICH, E.N.VLASOVA, S.FRENKEL
"Intermolecular interactions in the mixtures of semidilute aqueous solutions of poly(acrylic acid) and cellulose ethers", *Polymer Science Series A&B (official translation of Vysokomolek. Soed.)*, **41**, 1176 (1999).
 43. G.A.EVMENENKO, V.L.ALEXEEV, T.V.BUDTOVA, A.L.BUYANOV, S.YA.FRENKEL

- "Structural changes in hydrophilic networks in water-salt solutions, studied by SANS", *The Wiley Polymer Network Group Review Series "Chemical and Physical Networks. Formation and Control of Properties"*, Ed. by B.T.Stokke, 1999, John Wiley and Sons, v. 2, p.190.
44. G.EVMENENKO, T.BUDTOVA
"Structural changes in hydrogels immersed in a polymer solution, studied by SANS", *Polymer*, **41**, 4943 (2000).
 45. O.NIKOLAEVA, T.BUDTOVA, V.ALEXEEV, S.FRENKEL
"Interpolymer association between polyacrylic acid and cellulose ethers: formation and properties", *J. Polym. Sci: Part B: Polym. Phys.*, **38**, 1323-1330 (2000).
 46. T.BUDTOVA, P.NAVARD
"Hydrogel suspensions as an electro-rheological fluid", *Polymer*, **42**, 4853 (2001).
 47. C.ROY, T.BUDTOVA, P.NAVARD, O.BEDUE
"Structure of cellulose-soda solutions at low temperatures", *Biomacromolecules*, **2**, 687 (2001).
 48. T.BUDTOVA, N.BEL'NIKEVICH, Z.ZOOLSHOEV
"Anomalous flow of ultra high molecular weight poly(methyl methacrylate) in the converging and shear fields", *European Polym. J.*, **37**, 2231 (2001).
 49. O.NIKOLAEVA, N.BOBROVA, T.BUDTOVA, S.BRONNIKOV
"Influence of the interpolymer complex formation between polyacrylic acid and cellulose ethers on the properties of their mixtures and films", *J. Macromol. Sci.-Physics.*, **B40(3&4)**, 539 (2001).
 50. N.G.BELNIKEVICH, T.V.BUDTOVA, O.V.NIKOLAEVA, S.A.VESNEBOLOTSKAYA
"The correctness of using the viscometric method as a test on interpolymer complex formation in polymer mixtures", *Polymer Science Series B*. **44** (1-2), 27 (2002).
 51. T.BUDTOVA, N.BELNIKEVICH, L.KALYUZHAYA, V.ALEXEEV, S.BRONNIKOV, S.VESNEBOLOTSKAYA, Z. ZOOLSHOEV
"Chitosan modified by poly(ethylene oxide): films and mixtures properties", *J. Appl. Polym. Sci.*, **84**, 1114-1122 (2002)
 52. A.ZANINA, T.BUDTOVA
"Hydrogel under shear: a rheo-optical study of the particle deformation and solvent release", *Macromolecules*, **35**, 1973-1975 (2002).
 53. I.E.SULEIMENOV, T.V.BUDTOVA, E.A.BEKTUROV
"The kinetics of swelling of highly swelling hydrogels under the coexistence of two phases", *Polymer Science Series A*, **44** (9), 1010 (2002).
 54. A.ZANINA, A.VILESOV, T.BUDTOVA
"Shear-induced solvent release from gel particles: application to drug-delivery systems", *International Journal of Pharmaceutics*, **242**, 137-146 (2002).

55. S.VERVOORT, T.BUDTOVA
 “Evidence of shear-induced polymer release from a swollen gel”, *Polymer International*, **52**, 553-558 (2003).
56. C. ROY, T. BUDTOVA, P. NAVARD
 “Rheological properties and gelation of aqueous cellulose-NaOH solutions”, *Biomacromolecules*, **4**, 259 (2003).
57. I.E.SULEIMENOV, T.V.BUDTOVA, I.YU.PERELADOV, E.A.BEKTUROV
 «Influence of ion-exchange processes on the swelling of a polymer gel», *Vestnik NAN (News of Kazakh Academy of Sciences, in Russian)*, **N 1**, 33 (2003).
58. I.E.SULEIMENOV, T.V.BUDTOVA, S.ADIL’BEKOV, I.YU.PERELADOV, E.A.BEKTUROV
 “Method of phase portraits for the analysis of the kinetics of polyelectrolyte gel swelling in a multi-component system”, *Vestnik KazNU, seriya khimicheskaya (News of Kazakh National University, Chemical series)*, **1(29)**, 44-48 (2004).
59. N.G.BEL’NIKEVICH, N.V.BOBROVA, S.V.BRONNIKOV, L.M.KALJUZHNAYA, T.V.BUDTOVA
 « Properties of some chitosan-containing blends and films therefrom», *Russian Journal of Applied Chemistry* **77** (2), 313 (2004).
60. I.E SULEIMENOV, T.V.BUDTOVA, S.A.ADILBEKOV, I.YU.PERELADOV, E.A.BEKTUROV
 “Application of the method of phase portraits to the analysis of the kinetics of redistribution of metal ion concentrations in the polyelectrolyte hydrogel-multicomponent solution system” *Polymer Science Series A*, **46** (8). 797 (2004)
61. I.E.SULEIMENOV, T.V.BUDTOVA, E.M.SHAPENOVA, N.G.BEL’NIKEVICH, E.A.BEKTUROV
 “Phenomenological description of the polyelectrolyte effect in solutions of complex composition”, *Khimicheskii Journal Kazakhstana, (Chemical Journal of Kazakhstan, in Russian)*, **N 1**, 5 (2004).
62. S.VERVOORT, S.PATLAZHAN, Y.WEYTS, T.BUDTOVA
 “Solvent release from highly swollen gels under compression”, *Polymer*, **46**, 121-127 (2005).
doi.org/10.1016/j.polymer.2004.10.046
63. S.VERVOORT, T.BUDTOVA
 “Shear-induced solvent release from a swollen microgel in the vorticity direction”, *Colloids and Surfaces A: Physicochem. Eng. Aspects*, **262**, 132-138 (2005).
64. I.E.SULEIMENOV, T.V.BUDTOVA, E.M.SHAPENOVA, N.G.BEL’NIKEVICH, E.A.BEKTUROV
 «A generalized form of the Fuoss law for viscosity of polyelectrolytes in salt solutions of complex composition *Polymer Science Series A*, **47 (10)**, 1104 (2005)

65. M.PINTEALA, T.BUDTOVA, V.EPURE, N.BELNIKEVICH, V.HARABAGIU, B.C.SIMIONESCU
« Interpolymer complexes between hydrophobically modified poly(methacrylic acid) and poly(N-vinylpyrrolidone) », *Polymer*, **46**, 7047-7054 (2005).
66. U.ZEO, E.TARABUKINA, T.BUDTOVA
“Kinetics of shear-induced gel deswelling/solvent release”, *J. Controlled Release*, **108**, 73-83 (2005).
67. J.BIKARD, P.MENARD, E.PEUVREL-DISDIER, T.BUDTOVA
“3D numerical simulation of the behaviour of a spherical particle suspended in a Newtonian fluid and submitted to a simple shear”, *Journal of Computational Material Science*, **37**, 517-525 (2006).
68. J. BIKARD, J. DE OLIVEIRA, C. CHAUDEMANCHE, T. BUDTOVA
“3D numerical modelling of a dip-coating process by a multidomain macroscopic approach », *International Journal of Forming Processes*, **10** (3), 337-359 (2007).
69. R.GAVILLON, T.BUDTOVA
« Kinetics of cellulose regeneration from cellulose-NaOH-water gels and comparison with cellulose-NMMO-water solutions », *Biomacromolecules*, **8**, 424-432 (2007).
70. M. EGAL, T. BUDTOVA, P.NAVARD
« Structure of aqueous solutions of microcrystalline cellulose-sodium hydroxide below 0°C and the limit of cellulose dissolution », *Biomacromolecules*, **8**, 2282-2287 (2007).
71. C. CHAUDEMANCHE, T. BUDTOVA
« Mixtures of pregelatinised maize starch and k-carrageenan: compatibility, rheology and gelation », *Carbohydrate Polymers*, **72**, 579-589 (2008).
72. M. EGAL, T. BUDTOVA, P. NAVARD
"The dissolution of microcrystalline cellulose in sodium hydroxide-urea aqueous solutions", *Cellulose*, **15**, 361-370 (2008).
73. R. GAVILLON, T. BUDTOVA
“Aerocellulose: new highly porous cellulose prepared from cellulose-NaOH aqueous solutions”, *Biomacromolecules*, **9**, 269-277 (2008).
doi.org/10.1021/bm700972k
74. A.M.L.HUIJBRECHTS, M.DESSE, T.BUDTOVA, M.C.R.FRANSSSEN, G.M.VISSER, C.G.BOERIU, E.J.R.SUDHÖLTER
“Physicochemical properties of etherified maize starch”, *Carbohydrate Polymers*, **74**, 170-184 (2008).
75. N.G.BELNIKEVICH, T.V.BUDTOVA, S.A.VESNEBOLOTSKAYA, G.K.ELYASHEVICH
“Effect of degree of cross-linking of sodium acrylate hydrogels on their swelling in variously acidic solutions”, *Russian Journal of Applied Chemistry*, **81**(10), 1818-1820 (2008)

76. E.GUILMINOT, R.GAVILLON, M.CHATENET, S.BERTHON-FABRY, A.RIGACCI, T.BUDTOVA
 “New nanostructured carbons based on porous cellulose: elaboration, pyrolysis and subsequent use as substrate for proton exchange membrane fuel cell electrocatalyst particles”, *Journal of Power Sources*, **185**, 717-726 (2008).
77. A.FIFERE, T.BUDTOVA, E.TARABUKINA, M.PINTEALA, M.SPULBER, C.PEPTU, V.HARABAGIU, B.C.SIMIONESCU
 « Inclusion Complexes of γ -cyclodextrin and Carboxyl-modified γ -cyclodextrin with C60: synthesis, characterization and controlled release application via microgels » *Journal of Inclusion Phenomena and Macrocylic Chemistry*, **64**, 83-94 (2009).
78. R.SESCOUSSE, T.BUDTOVA.
 « Influence of processing parameters on regeneration kinetics and morphology of porous cellulose from cellulose-NaOH-water solutions », *Cellulose*, **16(3)**, 417-426 (2009).
79. M. DESSE, S. ANG, G.A. MORRIS, M. ABU-HARDAN, B. WOLF, S.E. HILL, S.E. HARDING, T. BUDTOVA, J.R. MITCHELL
 « Analysis of the continuous phase of the modified waxy maize starch suspension », *Carbohydrate Polymers*, **77**, 320-325 (2009)
80. M.GERICKE, K.SCHLUFTER, T.LIEBERT, T.HEINZE, T.BUDTOVA
 “Rheological properties of cellulose/ionic liquid solutions: from dilute to concentrated states”, *Biomacromolecules*, **10 (5)**, 1188-1194 (2009).
81. M. DESSE, J. MITCHELL, B. WOLF, T. BUDTOVA
 “Experimental study of the break-up of starch suspension droplets in step-up shear flow”, *Journal of Rheology*, **53 (4)**, 943-955 (2009).
82. M. DESSE, D. FRAISEAU, J. MITCHELL, T. BUDTOVA
 “Individual swollen starch granules under mechanical stress: evidence of deformation and volume loss”, *Soft Matter*, **6**, 363-369 (2010).
83. E. TARABUKINA, Z. ZOOLSHOEV, E. MELENEVSKAYA, T. BUDTOVA
 “Delivery of fullerene-containing complexes via microgel swelling and shear-induced release”, *International Journal of Pharmaceutics*, **384 (1-2)**, 9-14 (2010).
84. R.SESCOUSSE, K.A.LE, M.E.RIES, T.BUDTOVA
 “Viscosity of cellulose-imidazolium-based ionic liquid solutions”, *Journal of Physical Chemistry B*, **114**, 7222-7228 (2010).
85. S.A. VESNEBOLOTSKAYA, N.G. BEL’NIKEVICH, T.V. BUDTOVA
 “Influence of Surface Layer Formation on Swelling of Polyelectrolytic Hydrogels in Aqueous Salt Solutions”, *Russian Journal of Applied Chemistry*, **83 (11)**, 2006–2010 (2010).
86. R. SESCOUSSE, A.SMACCHIA, T. BUDTOVA
 “Influence of lignin on cellulose-NaOH-water mixtures properties and on Aerocellulose morphology”, *Cellulose*, **17 (6)**, 1137 (2010).

87. C.S. LOVELL, A.WALKER, R.A. DAMION, A.RADHI, S.F. TANNER, T.BUDTOVA, M.E. RIES
 “Influence of Cellulose on Ion Diffusivity in 1-Ethyl-3-Methyl-Imidazolium Acetate Cellulose Solutions”, *Biomacromolecules*, **11**, 2927-2935 (2010)
88. M.DESSE, J. MITCHELL, B. WOLF, T. BUDTOVA
 “Droplet deformation and break-up under shear: hydrocolloid solution versus suspension of starch granules”, *Food Hydrocolloids*, **25**, 495-502 (2011).
89. R. SESCOUSSE, R. GAVILLON, T. BUDTOVA
 « Aerocellulose from cellulose-ionic liquid solutions: preparation, properties and comparison with cellulose-NaOH and cellulose-NMMO routes”, *Carbohydrate Polymers*, **83**, 1766–1774 (2011).
doi.org/10.1016/j.carbpol.2010.10.043
90. R. SESCOUSSE, R. GAVILLON, T. BUDTOVA
 “Wet and dry highly porous cellulose beads from cellulose-NaOH-water solutions: influence of the preparation conditions on beads shape and encapsulation of inorganic particles”, *Journal of Materials Science*, **46**, 759-765 (2011)
91. J. ROOKE, C. DE MATOS PASSOS, M. CHATENET, R. SESCOUSSE, T. BUDTOVA, S. BERTHON-FABRY, R. MOSDALE, F. MAILLARD
 “Synthesis and properties of platinum nanocatalyst supported on cellulose-based carbon aerogel for applications in PEMFCs”, *Journal of The Electrochemical Society*, **158** (7), B779-B789 (2011).
92. W. LIU, T. BUDTOVA, P. NAVARD
 "Influence of ZnO on the properties of dilute and semi-dilute cellulose-NaOH-water solutions”, *Cellulose*, **18**, 911–920 (2011).
93. N. LE MOIGNE, M. VAN DEN OEVER, T. BUDTOVA
 “A statistical analysis of fibre size and shape distribution after compounding in composites reinforced by natural fibres”, *Composites Part A*, **42(10)**, 1542-1550 (2011)
94. A. LE DUC, B. VERGNES, T. BUDTOVA
 “Polypropylene/natural fibres composites: analysis of fibre dimensions after compounding and observations of fibre rupture by rheo-optics”, *Composites Part A*, **42**, 1727–1737 (2011).
95. K. A. LE, R. SESCOUSSE, T. BUDTOVA
 “Influence of water on cellulose-EMIMAc solution properties: a viscometric study”, *Cellulose*, **19**, 45–54 (2012)
96. F.BESSON, T.BUDTOVA
 “Cellulose ester-polyolefine binary blend: morphological, rheological and mechanical properties”, *European Polymer Journal*, **48**, 981-989 (2012)
97. T. GÉRARD, T. BUDTOVA

- “Morphology and molten-state rheology of polylactide and polyhydroxyalkanoate blends”, *European Polymer Journal*, **48**, 1110-1117 (2012)
98. C. A. HALL, K. A. LE, C. RUDAZ, A. RADHI, C. S. LOVELL, R. A. DAMION, T. BUDTOVA, M. E. RIES
 “Macroscopic and microscopic study of 1-ethyl-3-methyl-imidazolium acetate - water mixtures”, *The Journal of Physical Chemistry B*, **116**, 12810–12818 (2012).
99. W. LIU, T. BUDTOVA
 “Ionic liquid: a powerful solvent for homogeneous starch-cellulose mixing and making films with tuned morphology”, *Polymer*, **53**, 5779-5787 (2012).
100. C.RUDAZ, T.BUDTOVA
 “Rheological and hydrodynamic properties of cellulose acetate/ionic liquid solutions”, *Carbohydrate Polymers*, **92**, 1966-1971 (2013)
101. W. LIU, T. BUDTOVA
 “Dissolution of unmodified waxy starch in ionic liquid and solution rheological properties”, *Carbohydrate Polymers*, **93**, 199-206 (2013)
102. N.LE MOIGNE, M. VAN DEN OEVER, T. BUDTOVA.
 “Dynamic and capillary shear rheology of natural fibre-reinforced composites”, *Polymer Engineering and Science*, **53**, 2582–2593 (2013)
103. O. K. KRASILNIKOVA, T. YU. GRANKINA, T. V. BUDTOVA, O. V. SOLOVTSOVA, L. N. NIKITIN
 “Volume change induced by water vapor sorption in cellulose dried under supercritical Conditions”, *Doklady Physical Chemistry*, **451**, Part 2, 180–183 (2013).
104. M.E. RIES, A. RADHI, A. S. KEATING, O. PARKER, T. BUDTOVA
 “Diffusion of 1-ethyl-3-methyl-imidazolium acetate in glucose, cellobiose, and cellulose solutions”, *Biomacromolecules*, **15** (2), 609–617 (2014)
 DOI: 10.1021/bm401652c
105. S. A. PATLAZHAN, I. V. KRAVCHENKO, T. V. BUDTOVA, V. G. SULTANOV
 “Deformation behavior of a composite drop in a simple shear flow” *Doklady Physical Chemistry*, **454**, Part 1, 8–11 (2014).
 DOI: 10.1134/S0012501614010023
106. K.A. LE, C. RUDAZ, T. BUDTOVA
 « Phase diagram, solubility limit and hydrodynamic properties of cellulose in binary solvents with ionic liquid”, *Carbohydrate Polymers*, **105**, 237–243 (2014)
 DOI: 10.1016/j.carbpol.2014.01.085
107. T. GERARD, T. BUDTOVA, A. PODSHIVALOV, S. BRONNIKOV
 “Polylactide/poly(hydroxybutyrate-co-hydroxyvalerate) blends: Morphology and mechanical properties” *Express Polymer Letters*, **8**, 609–617(2014)
 DOI: 10.3144/expresspolymlett.2014.64

108. A. SPATAREANU, M. BERCEA, T. BUDTOVA, V. HARABAGIU, L. SACARESCU, S. COSERI
 “Synthesis, characterization and solution behaviour of oxidized pullulan”, *Carbohydrate Polymers*, **111**, 63–71 (2014).
 DOI: 10.1016/j.carbpol.2014.04.060
109. C.RUDAZ, R. COURSON, L. BONNET, S. CALAS-ETIENNE, H. SALLEE and T. BUDTOVA
 “Aeropectin: fully biomass-based mechanically strong and thermal super-insulating aerogel”, *Biomacromolecules*, **15**, 2188–2195 (2014).
 DOI: 10.1021/bm500345u
110. A. DEMILECAMPS, G. REICHENAUER, A. RIGACCI, T. BUDTOVA
 “Cellulose-silica composite aerogels from “one-pot” synthesis”, *Cellulose*, **21**, 2625–2636 (2014)
 DOI: 10.1007/s10570-014-0314-3
111. W. WANG, F. LI, J. YU, T. BUDTOVA, P. NAVARD
 “Thermal behavior of low-substituted hydroxyethyl cellulose and cellulose solutions in NaOH-water”, *Nordic Pulp and Paper*, **1**, 20-25 (2015)
<https://doi.org/10.3183/npprj-2015-30-01-p020-025>
112. W. WANG, F. LI, J. YU, P. NAVARD, T. BUDTOVA
 “Structure and properties of novel cellulose-based fibers spun from aqueous NaOH solvent under various drawing conditions”, *Cellulose*, **22**, 1333–1345 (2015)
 DOI: 10.1007/s10570-015-0544-z
113. A. DEMILECAMPS, C. BEAUGER, C. HILDENBRAND, A. RIGACCI, T. BUDTOVA
 “Cellulose-silica aerogels”, *Carbohydrate Polymers*, **122**, 293–300 (2015)
 DOI: 10.1016/j.carbpol.2015.01.022
114. A. RADHI, K. A. LE, M. E. RIES, T. BUDTOVA
 “Macroscopic and microscopic study of 1-ethyl-3-methyl-imidazolium acetate–DMSO Mixtures”, *The Journal of Physical Chemistry B*, **119** (4), 1633–1640 (2015)
 DOI: 10.1021/jp5112108
115. W. WANG, F. LI, J. YU, P. NAVARD, T. BUDTOVA
 “Influence of substitution on the rheological properties and gelation of hydroxyethyl cellulose solution in NaOH-water solvent”, *Carbohydrate Polymers*, **124**, 85–89 (2015).
 DOI: 10.1016/j.carbpol.2015.01.065
116. T. BUDTOVA, P. NAVARD
 “Viscosity-temperature dependence and activation energy of cellulose solutions”, *Nordic Pulp and Paper*, **1**, 99-104 (2015)
<https://doi.org/10.3183/npprj-2015-30-01-p099-104>
117. M. BULOTA, T. BUDTOVA

- “PLA/algae composites: morphology and mechanical properties”, *Composites Part A: Applied Science and Manufacturing*, **73**, 109–115 (2015)
DOI: 10.1016/j.compositesa.2015.03.001
118. G. POUR, C. BEAUGER, A. RIGACCI, T. BUDTOVA
“Xerocellulose: lightweight, porous and hydrophobic cellulose prepared via ambient-drying”, *J Mater Sci.*, **50**(13), 4526–4535 (2015)
DOI: 10.1007/s10853-015-9002-4
119. M. BULOTA, T. BUDTOVA
“Highly porous and light-weight flax/PLA composites”, *Industrial Crops and Products*, **74** 132–138 (2015)
DOI: 10.1016/j.indcrop.2015.04.045
120. S. ZHAO, W. J. MALFAIT, A. DEMILECAMPS, Y. ZHANG, S.L BRUNNER, L. HUBER, P. TINGAUT, A. RIGACCI, T. BUDTOVA, M. M. KOEBEL
“Strong, Thermally Superinsulating, Biopolymer-Silica Aerogel Hybrids by Cogelation of Silicic Acid with Pectin”, *Angewandte Chemie International Edition*, **54** (48), 14282–14286 (2015)
DOI: 10.1002/anie.201507328
121. A. ABDENNADHER, M. VINCENT, T. BUDTOVA
“Rheological properties of molten flax- and Tencel-polypropylene composites: Influence of fiber morphology and concentration”, *Journal of Rheology*, **60**(1), 191–201 (2016).
DOI: 10.1122/1.4938224
122. T. BUDTOVA, P. NAVARD
“Cellulose in NaOH–water based solvents: a review”, *Cellulose* **23**, 5–55 (2016).
DOI: 10.1007/s10570-015-0779-8
123. N. BUCHTOVA, T. BUDTOVA
“Cellulose aero-, cryo- and xerogels: towards understanding of morphology control”, *Cellulose*, **23**(4), 2585–2595 (2016)
DOI: 10.1007/s10570-016-0960-8
124. D. CIOLACU, C. RUDAZ, M. VASILESCU, T. BUDTOVA
“Physically and chemically cross-linked cellulose cryogels: Structure, properties and application for controlled release” *Carbohydrate Polymers*, **151**, 392–400 (2016)
DOI: 10.1016/j.carbpol.2016.05.084
125. M. BULOTA, T. BUDTOVA
“Valorisation of macroalgae industrial by-product as filler in thermoplastic polymer composites”, *Composites: Part A*, **90**, 271–277 (2016).
DOI: 10.1016/j.compositesa.2016.07.010
126. E. DI GIUSEPPE, R. CASTELLANI, S. DOBOSZ, J. MALVESTIO, F. BERZIN, J. BEAUGRAND, C. DELISEE, B. VERGNES, T. BUDTOVA

- « Reliability evaluation of automated analysis, 2D scanner, and micro-tomography methods for measuring fiber dimensions in polymer-lignocellulosic fiber composites » *Composites: Part A*, **90**, 320–329 (2016).
DOI: 10.1016/j.compositesa.2016.07.020
127. A. DEMILECAMPS, M. ALVES, A. RIGACCI, G. REICHENAUER, T. BUDTOVA
“Nanostructured Interpenetrated Organic-Inorganic Aerogels with Thermal Superinsulating Properties”, *Journal of Non-Crystalline Solids*, **452**, 259–265 (2016).
DOI: 10.1016/j.jnoncrysol.2016.09.003
128. T. COUSIN, C. BERTO, T. BUDTOVA, J. KUREK, P. NAVARD
“Influence of the scale and type of processing tool on plasticization of cellulose acetate” *Polymer Engineering & Science*, **57**, 563-569 (2017).
DOI: 10.1002/pen.24452
129. S. COSERI, M. BERCEA, V. HARABAGIU, T. BUDTOVA
“Oxidation vs. degradation in polysaccharides: Pullulan – A case study”. *European Polymer Journal* **85**, 82–91 (2016).
DOI: 10.1016/j.eurpolymj.2016.10.020
130. R. CASTELLANI, E. DI GIUSEPPE, J. BEAUGRAND, S. DOBOSZ, F. BERZIN, B. VERGNES, T. BUDTOVA
« Lignocellulosic fiber breakage in a molten polymer. Part 1. Qualitative analysis using rheo-optical observations”. *Composites: Part A* **91** 229–237 (2016)
DOI: 10.1016/j.compositesa.2016.10.015
131. G. MARKEVICIUS, R. LADJ, P. NIEMEYER, T. BUDTOVA, A. RIGACCI
“Ambient-dried thermal superinsulating monolithic silica-based aerogels with short cellulosic fibers” *J. Material Science*, **52**, 2210–2221 (2017)
DOI: 10.1007/s10853-016-0514-3
132. E. DI GIUSEPPE, R. CASTELLANI, T. BUDTOVA, B. VERGNES
“Lignocellulosic fiber breakage in a molten polymer. Part 2. Quantitative analysis of the breakage mechanisms during compounding”, *Composites: Part A*, **95**, 31–39 (2017)
DOI: 10.1016/j.compositesa.2016.12.011
133. F. BERZIN, J. BEAUGRAND, S. DOBOSZ, T. BUDTOVA, B. VERGNES
“Lignocellulosic fiber breakage in a molten polymer. Part 3. Modelling of the dimensional change of the fibers during compounding by twin screw extrusion”, *Composites: Part A*, **101**, 422–431 (2017).
DOI: 10.1016/j.compositesa.2017.07.009
134. S. M. GREEN, M. E. RIES, J. MOFFAT, T. BUDTOVA
“NMR and Rheological Study of Anion Size Influence on the Properties of Two Imidazolium-based Ionic Liquids”, *Scientific Reports*, **7**, 8968 (2017).
DOI: 10.1038/s41598-017-09509-2
135. J. JAXEL, G. MARKEVICIUS, A. RIGACCI, T. BUDTOVA

- “Thermal superinsulating silica aerogels reinforced with short man-made cellulose fibers”
Composites: Part A **103**, 113–121 (2017)
 DOI: 10.1016/j.compositesa.2017.09.018
136. L. DRUEL, R. BARDL, W. VORWERG, T. BUDTOVA
 “Starch aerogels: a member of the family of thermal super-insulating materials”,
Biomacromolecules **18** (12), 4232–4239 (2017)
 DOI: 10.1021/acs.biomac.7b01272
137. Y. AKIL, R. CASTELLANI, R. LEHNEN, T. BUDTOVA, B. SAAKE
 “Hydroxyalkylation of xylan using propylene carbonate: comparison of products from homo- and heterogeneous synthesis by HRMAS NMR and rheology”, *Cellulose* **25**(1), 217–231 (2018)
 DOI: 10.1007/s10570-017-1583-4
138. G. AFSABI, K. DIMIC-MISIC, P. GANE, T. BUDTOVA, T. MALONEY, T. VUORINEN
 “The investigation of rheological and strength properties of NFC hydrogels and aerogels from hardwood pulp by short catalytic bleaching (H_{cat})”, *Cellulose*, **25**, 1637–1655 (2018)
 DOI: 10.1007/s10570-018-1678-6
139. S. GROULT, T. BUDTOVA
 “Thermal conductivity/structure correlations in thermal super-insulating pectin aerogels”,
Carbohydrate Polymers, **196**, 73–81 (2018)
 DOI: 10.1016/j.carbpol.2018.05.026
140. A. PODSHIVALOV, F. BESSON, T. BUDTOVA, S. BRONNIKOV
 “Morphology and improved impact strength of cellulose acetate butyrate blended with 1 polyethylene copolymer”, *Express Polymer Letters*, **12** (10), 856–866 (2018)
 DOI: 10.3144/expresspolymlett.2018.74
141. L. DRUEL, P. NIEMEYER, B. MILOW, T. BUDTOVA
 “Rheology of cellulose-[DBNH][CO₂Et] solutions and shaping into aerogel beads”, *Green Chem.*, **20**, 3993 – 4002 (2018)
 DOI: 10.1039/c8gc01189c
142. S. GROULT, T. BUDTOVA
 “Tuning structure and properties of pectin aerogels”, *European Polymer Journal* **108**, 250–261 (2018)
 DOI: 10.1016/j.eurpolymj.2018.08.048
143. M. E. RIES, A. RADHI, S. M. GREEN, J. MOFFAT, T. BUDTOVA
 “Microscopic and Macroscopic Properties of Carbohydrate Solutions in the Ionic Liquid 1-Ethyl-3-methyl-imidazolium Acetate”, *J. Phys. Chem. B*, **122**, 8763–8771 (2018)
 DOI: 10.1021/acs.jpcc.8b06939
144. K. LABIDI, O. KORHONEN, M. ZRIDA, A. H. HAMZAOU, T. BUDTOVA
 “All-cellulose composites from alfa and wood fibers”, *Industrial Crops & Products* **127**, 135–141 (2019)

DOI: 10.1016/j.indcrop.2018.10.055

145. R. H. ABOU-SALEH, M. C. HERNANDEZ-GOMEZ, S. AMSBURY, C. PANIAGUA, M. BOURDON, S. MIYASHIMA, Y. HELARIUTTA, M. FULLER, T. BUDTOVA, S. D. CONNELL, M. E. RIES, Y. BENITEZ-ALFONSO
“Interactions between callose and cellulose revealed through the analysis of biopolymer mixtures”, *Nature Communications* **9**, 4538 – 4551 (2018)
DOI: 10.1038/s41467-018-06820-y
146. K. GANESAN, T. BUDTOVA, L. RATKE, P. GURIKOV, V. BAUDRON, I. PREIBISCH, P. NIEMEYER, I. SMIRNOVA, B. MILOW
“Review on the Production of Polysaccharide Aerogel Particles”, *Materials*, **11**, 2144 - 2181 (2018)
DOI: 10.3390/ma11112144
147. T. BUDTOVA
“Cellulose II aerogels: a review”, *Cellulose*, **26**, 81–121 (2019)
DOI: 10.1007/s10570-018-2189-1
148. D. HAMMICHE, A. BOUKERROU, B. AZZEDDINE, N. GUERMAZI, T. BUDTOVA
“Characterization of polylactic acid green composites and its biodegradation in a bacterial environment”, *International Journal of Polymer Analysis and Characterization*, **24** (3), 236-244 (2019)
DOI: 10.1080/1023666X.2019.1567083
149. O. KORHONEN, D. SAWADA, T. BUDTOVA
“All-cellulose composites via short-fiber dispersion approach using NaOH–water solvent”, *Cellulose*, **26**, 4881–4893 (2019)
DOI: 10.1007/s10570-019-02422-z
150. C. A. GARCÍA-GONZÁLEZ, T. BUDTOVA, L. DURÃES, C. ERKEY, P. DEL GAUDIO, P. GURIKOV, M. KOEBEL, F. LIEBNER, M. NEAGU, I. SMIRNOVA
“An Opinion Paper on Aerogels for Biomedical and Environmental Applications”, *Molecules*, **24**, 1815 (2019)
DOI: 10.3390/molecules24091815
151. O. KORHONEN, T. BUDTOVA
“Gelation of cellulose-NaOH solutions in the presence of cellulose fibers”, *Carbohydrate Polymers*, **224**, 115152 (2019)
DOI: 10.1016/j.carbpol.2019.115152
152. N. BUCHTOVA, C. PRADILLE, J.-L. BOUVARD, T. BUDTOVA
“Mechanical properties of cellulose aerogels and cryogels”, *Soft Matter*, **15**, 7901-7908 (2019)
DOI: 10.1039/c9sm01028a
153. L. DRUEL, A. KENKEL, V. BAUDRON, S. BUWALDA, T. BUDTOVA
« Cellulose Aerogel Microparticles via Emulsion-Coagulation Technique », *Biomacromolecules*, **21**, 1824–1831 (2020)

DOI :10.1021/acs.biomac.9b01725

154. O. KORHONEN, N. FORSMAN, M. ÖSTERBERG, T. BUDTOVA
“Eco-friendly surface hydrophobization of all-cellulose composites using layer-by-layer deposition”, *Express Polymer Letters*, 14 (10) 896–907 (2020)
DOI: 10.3144/expresspolymlett.2020.74
155. F. CHEN, D. SAWADA, M. HUMMEL, H. SIXTA, T. BUDTOVA
“Unidirectional All-Cellulose Composites from Flax via Controlled Impregnation with Ionic Liquid” *Polymers*, 12, 1010 (2020)
DOI:10.3390/polym12051010
156. F. CHEN, D. SAWADA, M. HUMMEL, H. SIXTA, T. BUDTOVA
“Swelling and Dissolution Kinetics of Natural and Man-Made Cellulose Fibers in Solvent Power Tuned Ionic Liquid”, *Cellulose*, 27, 7399–7415 (2020)
DOI: 10.1007/s10570-020-03312-5
157. O. KORHONEN, T. BUDTOVA
“All-cellulose composite aerogels and cryogels” *Composites Part A: Applied Science and Manufacturing*, 137, 106027 (2020)
doi.org/10.1016/j.compositesa.2020.106027
158. F. CHEN, W. XIANG, D. SAWADA, L. BAI, M. HUMMEL, H. SIXTA, T. BUDTOVA
« Exploring Large Ductility in Cellulose Nanopaper Combining High Toughness and Strength », *ACS Nano*, 14, 9, 11150–11159 (2020).
<https://dx.doi.org/10.1021/acsnano.0c02302>
159. K. HERBURGER, L. FRANKOVÁ, D. SANHUEZA, S. ROIG-SANCHEZ, F. MEULEWAETER, A. HUDSON, A. THOMSON, A. LAROMAINE, T. BUDTOVA, S. C. FRY
“Enzymically attaching oligosaccharide-linked ‘cargoes’ to cellulose and other commercial polysaccharides via stable covalent bonds” *International Journal of Biological Macromolecules*, 164, 4359-4369 (2020)
<https://doi.org/10.1016/j.ijbiomac.2020.09.039>
160. F. ZOU, T. BUDTOVA
“Tailoring the morphology and properties of starch aerogels and cryogels via starch source and process parameter” *Carbohydrate Polymers*, 255, 117344 (2021)
<https://doi.org/10.1016/j.carbpol.2020.117344>
161. T. BUDTOVA, D. ANTONIO AGUILERA, S. BELUNS, L. BERGLUND, C. CHARTIER, E. ESPINOSA, S. GAIDUKOV, A. KLIMEK-KOPYRA, A. KMITA, D. LACHOWICZ, F. LIEBNER, O. PLATNIEKS, A. RODRÍGUEZ, L. K. TINOCO NAVARRO, F. ZOU AND S. J. BUWALDA
“Biorefinery Approach for Aerogels”, *Polymers* 12, 2779 (2020)
doi:10.3390/polym12122779
162. S. GROULT, S. BUWALDA, T. BUDTOVA

- “Pectin hydrogels, aerogels, cryogels and xerogels: influence of drying on structural and release properties” *European Polymer Journal*, 149, 110386 (2021)
<https://doi.org/10.1016/j.eurpolymj.2021.110386>
163. F. CHEN, J.-L. BOUVARD, D. SAWADA, C. PRADILLE, M. HUMMEL, H. SIXTA, T. BUDTOVA
 “Exploring Digital Image Correlation Technique for the Analysis of the Tensile Properties of All-Cellulose Composites”, *Cellulose*, 28, 4165–4178 (2021)
<https://doi.org/10.1007/s10570-021-03807-9>
164. F. ZOU, T. BUDTOVA
 “Polysaccharide-based aerogels for thermal insulation and superinsulation: an overview” *Carbohydrate Polymers*, 266, 118130 (2021)
doi.org/10.1016/j.carbpol.2021.118130
165. S. GROULT, S. BUWALDA, T. BUDTOVA
 “Tuning bio-aerogel properties for controlling theophylline delivery. Part 1: Pectin aerogels” *Material Science and Engineering C*, 126, 112148 (2021)
doi.org/10.1016/j.msec.2021.112148
166. C. CHARTIER, S. BUWALDA, H. VAN DEN BERGHE, B. NOTTELET, T. BUDTOVA
 “Tuning the properties of porous chitosan: Aerogels and cryogels”, *International Journal of Biological Macromolecules* 202, 215–223 (2022)
<https://doi.org/10.1016/j.ijbiomac.2022.01.042>
167. S. GROULT, S. BUWALDA, T. BUDTOVA
 “Tuning bio-aerogel properties for controlling drug delivery. Part 2: Cellulose-pectin composite aerogels” *Biomaterials Advances* (former *Material Science and Engineering C*), 135, 212732 (2022)
<https://doi.org/10.1016/j.biomadv.2022.212732>
168. D. A. AGUILERA-BULLA, L. LEGAY, S. J. BUWALDA, T. BUDTOVA
 “Crosslinker-free hyaluronic acid aerogels”, *Biomacromolecules*, 23, 2838–2845 (2022)
<https://doi.org/10.1021/acs.biomac.2c00207>
169. F. ZOU, J.-L. BOUVARD, C. PRADILLE, T. BUDTOVA
 “Ice-templated additive-free porous starches with tuned morphology and properties”, *European Polymer Journal*, 176, 111403 (2022)
<https://doi.org/10.1016/j.eurpolymj.2022.111403>
170. T. BUDTOVA, T. LOKKI, S. MALAKOOTI, A. REGE, H. LU, B. MILOW, J. VAPAAVUORI, S. L. VIVOD
 “Acoustic Properties of Aerogels: Current Status and Prospects”¹, *Advanced Engineering Materials*, 2201137 (2022)
 DOI: 10.1002/adem.202201137

¹ Selected by the editor-in-chief to be part of the “Best of Advanced Engineering Materials - 2023 Edition” Virtual Issue as one of the most outstanding articles recently published in *Advanced Engineering Materials*

171. M. NEGRIER, EL AHMAR, R. SESCOUSSE, M. SAUCEAU, T. BUDTOVA
 « Upcycling of textile waste into high added value cellulose porous materials, aerogels and cryogels », *RSC Sustainability*, 1, 335-345 (2023)
 DOI: 10.1039/d2su00084a
172. F. ZOU, T. BUDTOVA
 “Starch Alcohols, Aerogels, and Aerogel-like Xerogels: Adsorption and Release of Theophylline”, *ACS Sustainable Chem. Eng.*, 11, 5617–5625 (2023)
<https://doi.org/10.1021/acssuschemeng.2c07762>
173. C. CHARTIER, S. BUWALDA, B. C. ILOCHONWU, H. VAN DEN BERGHE, T. VERMONDEN, M. VIOLA, B. NOTTELET, T. BUDTOVA
 “Release kinetics of dexamethasone phosphate from porous chitosan: comparison of aerogels and cryogels”, *Biomacromolecules*, **24**, 10, 4494–4501 (2023)
<https://doi.org/10.1021/acs.biomac.2c01408>
174. L. LEGAY, T. BUDTOVA, S. BUWALDA
 “Hyaluronic acid aerogels made via freeze-thaw induced gelation”, *Biomacromolecules*, **24**, 10, 4502–4509 (2023)
<https://doi.org/10.1021/acs.biomac.2c01518>
175. F. CIUFFARIN, M. NEGRIER, S. PLAZZOTTA, M. LIBRALATO, S. CALLIGARIS, T. BUDTOVA, L. MANZOCCO
 “Interactions of cellulose cryogels and aerogels with water and oil: Structure-function relationships” *Food Hydrocolloids* **140**, 108631 (2023)
<https://doi.org/10.1016/j.foodhyd.2023.108631>
176. L. DRUEL, T. BUDTOVA
 “Aerogel-like (low density and high surface area) cellulose monoliths and beads obtained without supercritical- or freeze-drying”, *Cellulose*, **30**, 8339–8353 (2023)
<https://doi.org/10.1007/s10570-023-05349-8>
177. Martin Gericke, Adérito J. R. Amaral, Tatiana Budtova, Pieter De Wever, Thomas Groth, Thomas Heinze, Herman Höfte, Anton Huber, Olli Ikkala, Janusz Kapuśniak, Rupert Kargl, João F. Mano, Már Másson, Pietro Matricardi, Bruno Medronho, Magnus Norgren, Tiina Nypelö, Laura Nyström, Anna Roig, Michael Sauer, Henk Schols, John van der Linden, Tanja Wrodnigg, Chunlin Xu, Gleb Yakubov, Karin Stana Kleinschek, Pedro Fardim
 “The European Polysaccharide Network 1 of Excellence (EPNOE) Research Roadmap 2040: Advanced Strategies for Exploiting the Vast Potential of Polysaccharides as Renewable Bioresources”, *Carbohydrate Polymers*, accepted
178. M. NEGRIER, E. EL AHMAR, R. SESCOUSSE, M. SAUCEAU, G. BOUET, D. EGLIN, T. BUDTOVA
 « Upcycling cellulose waste textile into aerogel beads via prilling technique », *Cellulose*, accepted

Patents

L. Druel, T. Budtova, Procédé de fabrication d'aerocellulose. FR3094009A1, 2019

Books and book chapters

1. B.A.ZHUBANOV, E.A.BEKTUROV, T.V.BUDTOVA, R.A.USKAKOV, E.P.BATYRBEKOV, I.E.SULEYMENOV
"Physico-chemical background on use of polymer hydrogels in pharmaceutics", Almaty, 2004, 210p
2. I.E.SULEYMENOV, T.V.BUDTOVA, E.M.RUSTEMOVA, E.A.BEKTUROV
"Problems of physical chemistry of polyelectrolytes", Almaty, Nauka, 2007, 243p.
3. T.BUDTOVA, M.EGAL, R.GAVILLON, M.GERICKE, T.HEINZE, T.LIEBERT, C.ROY, K.SCHLUFTER, P.NAVARD
"Comparison of solution-state properties of cellulose dissolved in NaOH/water and in ionic liquid (EMIMAc)", ACS book series, volume 1033 "Cellulose Solvents: For Analysis, Shaping and Chemical Modification", Chapter 10, pp 179-196 (2010).
4. P.ROSENBERG, T.BUDTOVA, M.ROM, P.FARDIM
"Effect of Enzymatic Treatment on Solubility of Cellulose in 7.6%NaOH-water and Ionic Liquid", ACS book series, volume 1033 "Cellulose Solvents: For Analysis, Shaping and Chemical Modification", Chapter 12, 2010.
3. F. WENDLER, T. SCHULZE, D. CIECHANSKA, E. WESOLOWSKA, D. WAWRO, F. MEISTER, T. BUDTOVA, F. LIEBNER
" Cellulose products from solutions: film, fibres and aerogels" In "The European Polysaccharide Network of Excellence (EPNOE). Research initiatives and results » Ed. P.Navard, Springer, 2012.
5. P. NAVARD, F. WENDLER, F. MEISTER, M. BERCEA, T. BUDTOVA
"Preparation and properties of cellulose solutions", In "The European Polysaccharide Network of Excellence (EPNOE). Research initiatives and results » Ed. P. Navard, Springer, 2012
6. J. ROOKE, R. SESCOUSSE, T. BUDTOVA, S. BERTHON-FABRY, B. SIMON, M. CHATENET
"Cellulose-based nanostructured carbons for energy conversion and storage devices" in "Green Carbon Materials: Advances and Applications", T. Rufford, D. Hulicova-Jurcakova, J. Zhu Eds., Pan Stanford Publishing Pte Ltd, Singapore (2012) pp. 89-111
DOI: 10.4032/9789814411141
7. T. BUDTOVA, R. CASTELLANI, E. DI GIUSEPPE, B. VERGNES
« Mecanismes de casse de fibres lignocellulosiques et proprietes rheologique des composites » (pp 89 – 129) in « Composites polymères et fibres lignocellulosiques, Propriétés,

transformation et caractérisation » F. Berzin Ed, Lavoisier, Coll. Science et ingénierie des matériaux. 2017, 312 p.

8. P.J.J. DUMONT, L. ORGEAS, F.MARTOIA, T. BUDTOVA, M. VINCENT
“Mise en oeuvre des composites à fibres lignocellulosiques” (pp. 159 – 211) in « Composites polymères et fibres lignocellulosiques, Propriétés, transformation et caractérisation » F. Berzin Ed, Lavoisier, Coll. Science et ingénierie des matériaux. 2017, 312 p.
9. T. BUDTOVA
« Bio-based aerogels : a new generation of thermal superinsulating materials », (pp 371-392) in Cellulose Science and Technology. Chemistry, Analysis and Applications, A. Potthast, T. Rosenau, J. Hell Eds, First edition, Hoboken, NJ: John Wiley & Sons, 2018, 445 p.
10. T. BUDTOVA
“Polysaccharide (non-cellulosic) aerogels” in Handbook of Aerogels, Eds M. A. Aegerter, N. Leventis, M. Koebel, S. A. Steiner III, In Series Springer Handbooks, Springer Nature Switzerland AG 2023, ISSN 2522-8692.