

Publication List

Peer reviewed publication (the most 3 important publications)

23. Bekir, M.; Brückner, C.; Zauscher, S.; Gradzielski, M. Polyelectrolyte brushes affect the adsorption kinetics of nanoparticles onto lipid membranes, *Colloids Surf. A: Physicochem. Eng.* **2023**, 132354.
<https://doi.org/10.1016/j.colsurfa.2023.132354>
22. Akarsu, P.; Reinicke, S.; Lehnens, A.-C.; Bekir, M.; Böker, A.; Hartlieb, M.; Reifarth, M. Fabrication of Patchy Silica Microspheres with Tailor-made Patch Functionality using Photo-Iniferter Reversible-Addition-Fragmentation Chain-Transfer (PI-RAFT) Polymerization, *Small* **2023**, 2301761.
<https://doi.org/10.1002/smll.202301761>
21. Sharma, A.; Grodievskaya, Y.; Lomadze, N.; **Bekir, M.**; Jung, S.-H.; Pich, A.; Santer, S. Making Microgels Photo-Responsive by Complexation with Spiropyran Surfactant, *Soft Matter* **2023**, 19, 4088.
<https://doi.org/10.1039/D3SM00580A>
20. Lüdecke, N.; **Bekir, M.**; Eickelman, S.; Hartlieb, M.; Schlaad, H. Toward Protein-Repellent Surface Coatings from Catechol-containing Cationic Poly(2-ethyl-2-oxazoline), *ACS Applied Materials & Interfaces*. **2023**, 15, 19582.
<https://doi.org/10.1021/acsami.2c22518>
19. **Bekir, M.**; Sperling, M.; Vasquez Muñoz, D.; Braksch, C.; Böker, A.; Lomadze, N.; Popescu, M. N.; Santer, S. Versatile microfluidics separation of colloids by combining external flow with light-induced chemical activity, *Advanced Materials* **2023**, 35, 2300358.
<https://doi.org/10.1002/adma.202300358>
18. **Bekir, M.**; Loebner, S.; Kobyshev, A.; Lomadze, N.; Santer, S. Photosensitive Spherical Polymer Brushes: Light Triggered Process of Particle Repulsion, *Processes* **2023**, 11, 773.
<https://doi.org/10.3390/pr11030773>
17. Lehnens, A.-C.; Gurke, J.; Bapolisi, A. M.; Reifarth, M.; **Bekir, M.**; Hartlieb M. Xanthate-supported photo-iniferter (XPI)-RAFT polymerization: facile and rapid access to complex macromolecules, *Chemical Science* **2023**, 14, 593–603.
<https://doi.org/10.1039/d2sc05197d>
16. Babolisi, M. A.; Kielb, P.; **Bekir, M.**; Lehnens, A.-C.; Radon, C.; Laroque, S.; Wendler, P. Müller-Werkmeister, H. M.; Hartlieb, M. Antimicrobial Polymers of Linear and Bottlebrush Architecture: Probing the Membrane Interaction and Physicochemical Properties, *Macromol. Rapid Commun.* **2022**, 2200288.
<https://doi.org/10.1002/marc.202200288>
15. Muraveva, V.; **Bekir, M.**; Lomadze, N.; Grossmann, R.; Beta, C.; Santer, S. Interplay of Diffusio- and Thermoosmotic Flows Generated by Single Light Stimulus, *Appl. Phys. Lett* **2022**, 120, 231905.
<https://doi.org/10.1063/5.0090229>
14. Sharma, A.; **Bekir, M.**; Lomadze, N.; Jung, S.-H.; Pich, A.; Santer, S. Generation of local diffusioosmotic flow by light responsive microgels, *Langmuir* **2022**, 38, 6343–6351.
<https://doi.org/10.1021/acs.langmuir.2c00259>

13. Reifarth M.; **Bekir, M.**; Bapolisi, A.; Titov, E.; Nußhardt, F.; Nowaczyk, J.; Grigoriev, D.; Sharma, A.; Saalfrank, P.; Santer, S.; Hartlieb, M.; Böker, A. Ein dual-responsives pH- und lichtschaltbares Tensid mit einer Spiropyran-Einheit: Untersuchungen zum Schaltmechanismus und Anwendung zur Steuerung von Emulsionsstabilitäten. *Ang. Chem.* **2022**, *134*, e202114687.

<https://doi.org/10.1002/ange.202114687>

12. Reifarth, M.; **Bekir, M.**; Bapolisi, A.; Titov, E.; Nußhardt, F.; Nowaczyk, J.; Grigoriev, D.; Sharma, A.; Saalfrank, P.; Santer, S.; Hartlieb, M.; Böker, A. A Dual pH and Light-Responsive Spiropyran-Based Surfactant: Investigations on its Switching Behavior and Remote Control over Emulsion Stability. *Ang. Chem. Int. Ed.* **2022**, *61*, e202114687.

<https://doi.org/10.1002/anie.202114687>

11. **Bekir, M.**; Sharma, A.; Umlandt, M.; Lomadze, N.; Santer, S. How to turn any surface to act as a micropump, *Adv. Mater. Int.* **2022**, *9*, 2102395.

<http://doi.org/10.1002/admi.202102395>

10. Sharma, A.; Jung, S.H.; Lomadze, N.; A. Pich, S. Santer, **Bekir, M.**, Adsorption Kinetics of a Photosensitive Surfactant Inside Microgels, *Macromolecules* **2021**, *54*, 10682.

<http://doi.org/10.1021/acs.macromol.1c01994>

9. Titov, E.; Sharma, A.; Lomadze, N.; Saalfrank, P.; Santer, S.; **Bekir, M.** Photoisomerization of Azobenzene-Containing Surfactant within a Micelle, *ChemPhotoChem* **2021**, *5*, 926.

<https://doi.org/10.1002/cptc.202100103>

8. **Bekir, M.**; Jelken, J.; Jung, S.-H.; Pich, A.; Pacholski, C.; Kopshev, A.; Santer, S. Dual responsiveness of microgels induced by single light stimulus, *Appl. Phys. Lett.* **2021**, *118*, 091603.

<https://doi.org/10.1063/5.0036376>

7. Sharma, A.; **Bekir, M.**; Lomadze, N.; Santer, S. Photo-Isomerization Kinetics of Azobenzene Containing Surfactant Conjugated with Polyelectrolyte, *Molecules* **2021**, *26*, 19.

<https://doi.org/10.3390/molecules26010019>

6. **Bekir, M.**; Hörmann, A.; Brückner, C.; Hoffmann, I.; Prévost, S.; Gradzielski, M. Adsorption Kinetics of Oppositely Charged Hard and Soft Nanoparticles with Phospholipid Membranes, *Langmuir* **2021**, *37*, 2800.

<https://doi.org/10.1021/acs.langmuir.0c03553>

5. Arya, P.; Jelken, J.; Lomadze, N.; Santer, S.; **Bekir, M.** Kinetics of photo-isomerization of azobenzene containing surfactants, *J. Chem. Phys.* **2020**, *152*, 024904.

<https://doi.org/10.1063/1.5135913>

4. Umlandt, M.; Feldmann, D.; Schneck, E.; Santer, S.; **Bekir, M.** Adsorption of Photoresponsive Surfactants at Solid–Liquid Interface, *Langmuir* **2020**, *36*, 14009.

<https://doi.org/10.1021/acs.langmuir.0c02545>

3. **Sokolowski, M.**; Parlak, Z.; Bartsch, C.; Zauscher, S.; Gradzielski, M. Interaction Between Soft Nanoparticles and Phospholipid Membranes: Effect of the Polymer-Grafting Density on Nanoparticle Adsorption, *Appl. Nano Mater.* **2019**, *2*, 1808.

<https://doi.org/10.1021/acs.anm.8b01868>

2. **Sokolowski, M.**; Bartsch, C.; Spiering, V.J.; Prévost, S.; Appavou, M.-S.; Schweins, R.; Gradzielski, M. Preparation of Polymer Brush Grafted Anionic or Cationic Silica Nanoparticles: Systematic Variation of the Polymer Shell, *Macromolecules* **2018**, *51*, 6936.
<https://doi.org/10.1021/acs.macromol.8b01019>
1. Hsiao, I-L.; Gramatke, A. M.; Joksimovic, R.; **Sokolowski, M.**; Gradzielski, M.; Haase, A. Size and Cell Type Dependent Uptake of Silica Nanoparticles, *Nanomedicine & Nanotechnology* **2014**, *5*:6.
<http://dx.doi.org/10.4172/2157-7439.1000248>