

## Publication list

### 2024

653. F. Zabihi, M. Cherri, X. Guo, F. Rancan, F. Schumacher, E. Mohammadifar, B. Kleuser, W. Bäumer, M. Schirner, A. Vogt, R. Haag, *Pharmaceuticals* **2024**, 17(1), 77. *Topical Delivery of Tofacitinib in Dermatology: The Promise of a Novel Therapeutic Class Using Biodegradable Dendritic Polyglycerol Sulfates.*
652. S. Tavakkoli Fard, B. Thongrom, K. Achazi, G. Ma, R. Haag, C. C. Tzschucke, *Soft Matter*, **2024**, Advance Article. *Photo-responsive hydrogels based on a ruthenium complex: synthesis and degradation.*
651. A. Mittal, Aarti, S. Vats, F. Zabihi, K. Achazi, F. Rancan, A. Vogt, R. Haag, S. K. Sharma *Soft Matter*, **2024**, Advance Article. *Synthesis of C(3)-symmetric star shaped amphiphiles for drug delivery applications.*
650. M. Cherri, J. F. Romero, L. Steiner, M. Dimde, H. Koeppel, B. Paulus, E. Mohammadifar, R. Haag, *Biomacromolecules*, **2024**, 25, 1, 119–133. *Power of the Disulfide Bond: An Ideal Random Copolymerization of Biodegradable Redox-Responsive Hyperbranched Polyglycerols.*

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649. M. Schulze, C. Nie, G. Hartmann, P. Nickl, M. W. Kulka, M. Ballauff, R. Haag, *J. Appl. Polym. Sci.*, **2023**, 140(6), e53444. *Virus removal from aqueous environments with polyelectrolyte coatings on a polypropylene fleece.*
648. B. Thongrom, P. Tang, S. Arora, R. Haag, *Gels*, **2023**, 9 (12), 938. *Polyglycerol-Based Hydrogel as Versatile Support Matrix for 3D Multicellular Tumor Spheroid Formation.*
647. Z. Tavasolyzadeh, P. Tang, M. B. Hahn, G. Hweidi, N. Nordholt, R. Haag, H. Sturm, I. Topolniak, *Small*, **2023**, 2309394. *2D and 3D Micropatterning of Mussel-Inspired Functional Materials by Direct Laser Writing.*
646. S. Schötz, A. K. Griepe, B. B. Goerisch, S. Kortam, Y. S. Vainer, M. Dimde, H. Koeppel, S. Wedepohl, E. Quaas, K. Achazi, A. Schroeder, R. Haag, *Pharmaceuticals*, **2023**, 16(11), 1618. *Esterase-Responsive Polyglycerol-Based Nanogels for Intracellular Drug Delivery in Rare Gastrointestinal Stromal Tumors.*
645. J. F. Romero, S. Herziger, M. Cherri, M. Dimde, K. Achazi, E. Mohammadifar, R. Haag, *Pharmaceutics*, **2023**, 2023, 15(10), 2452. *Dendritic Glycerol-Cholesterol Amphiphiles as Drug Delivery Systems: A Comparison between Monomeric and Polymeric Structures.*

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644. J. Feng, C. Nie, E. Xie, B. Thongrom, V. Reiter-Scherer, S. Block, A. Herrmann, E. Quaas, C. Sieben, R. Haag, *ACS Appl. Mater. Interfaces*, **2023**, 15, 44, 51894–51904. *Sulfated Polyglycerol-Modified Hydrogels for Binding HSV-1 and RSV.*
643. S. Chandna, C. A. Olivares. M., E. Baranovskii, G. Engelmann, A. Böker, C. C.Tzschucke, R. Haag, *Angew. Chem. Int. Ed.*, **2023**, e202313945. *Lignin Upconversion by Functionalization and Network Formation.*
642. F. Zabihi, Z. Tu, S. Kaessmeyer, F. Schumacher, F. Rancan, B. Kleuser, C. Boettcher, K. Ludwig, J. Plendl, S. Hedtrich, A. Vogt, R. Haag, *Nanoscale Adv.*, **2023**, 5 (21) 5923-5931. *Efficient Skin Interactions of Graphene Derivatives: Challenge, Opportunity or both?*
641. S. Schötz, B. B. Goerisch, A. Mavroskoufis, M. Dimde, E. Quaas, K. Achazi, R. Haag, *ACS Appl. Nano Mater.*, **2023**, 6, 17, 15959–15968. *pH-degradable Polyglycerol-based Nanogels for intracellular Protein Delivery.*
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639. D. Lauster, K. Osterrieder, R. Haag, M. Ballauff, A. Herrmann, *Front. Microbiol.*, **2023**, 14, 1169547. *Respiratory viruses interacting with cells: the importance of electrostatics.*
638. P. Tang, B. Thongrom, S. Arora, R. Haag, *Adv. Healthc. Mater.*, **2023**, just accepted. *Polyglycerol-based biomedical matrix for immunomagnetic circulating tumor cell isolation and their expansion into tumor spheroids for drug screening.*
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635. F. Zabihi, J. Reissner, A. Friese, M. Schulze, C. Nie, P. Nickl, L. Lehmann, P. Siller, C. Melcher, T. Schneiders, T. Gries, U. Rösler, R. Haag, *Adv. Mater. Technol.*, **2023**, 8, 2300141. *Development of functional filter materials for virus protective face masks.*
634. M. Witt, M. Cherri, M. Ferraro, C. Yapto, K. Vogel, L. Schmidt, R. Haag, K. Danker, H. Dommisch, *ACS Appl. Bio Mater.*, **2023**, 6, 6, 2145–2157. *Anti-inflammatory IL-8 Regulation via an Advanced Drug Delivery System at the Oral Mucosa.*

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633. R. Thielhorn, I. Heing-Becker, N. Humpfer, J. Rentsch, R. Haag, K. Licha, H. Ewers, *Angew. Chem. Int. Ed. Engl.*, **2023**, e202302318. *Controlled grafting expansion microscopy.*
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628. T. Guitton-Spassky, F. Junge, A. K. Singh, B. Schade, K. Achazi, M. Maglione, S. Sigrist, Rashmi, R. Haag, *Nanoscale*, **2023**, 15, 7781-7791. *Fluorinated Dendritic Amphiphiles, their Stomatosome Aggregates and Application in Enzyme Encapsulation.*
627. D. Braatz, J. H. Peter, M. Dimde, E. Quaas, K. Ludwig, K. Achazi, M. Schirner, M. Ballauff, R. Haag, *J. Mater. Chem. B*, **2023**, 11, 3797-3807. *Dendritic Polyglycerolsulfate-SS-Poly(ester amide) Micelles for the Systemic Delivery of Docetaxel: Pushing the Limits of Stability through the Insertion of  $\pi$ - $\pi$  Interactions.*
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625. F. Rancan, K. Rajes, P. Sidiropoulou, S. Hadam, X. Guo, F. Zabihi, U. Mirastschijski, E. Ruhl, R. Haag, U. Blume-Peytavi, A. Vogt, *Int. Immunopharmacol.*, **2023**, 117, 109903. *Efficacy of topically applied rapamycin-loaded redox-sensitive nanocarriers in a human skin/T cell co-culture model.*
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623. D. Maysinger, I. Zhang, P. Y. Wu, M. Kagelmacher, H. D. Luo, J. N. Kizhakkedathu, J. Dervedde, M. Ballauff, R. Haag, A. Shobo, G. Multhaup, R. Anne McKinney, *ACS Chem. Neurosci.* **2023**, 14, 4, 677-688. *Sulfated Hyperbranched and Linear Polyglycerols Modulate HMGB1 and Morphological Plasticity in Neural Cells.*

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