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Functional Nanogel Coatings as Antifouling and Antibacterial Surfaces

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ABOUT THE AUTHOR

Damla Keskin was born on the 11th of March 1988 in Istanbul, Turkey. She completed a four-year B.Sc. degree in the department of chemistry at Istanbul Technical University, in Turkey. During her bachelor studies, she studied chemistry and learned French as an Erasmus exchange student at Nantes University, in France. She received her M.Sc. degree in the field of polymer chemistry in the Graduate School of Chemistry, Biology, and Physics (Ecole Nationale Supérieure de Chimie de Biologie et de Physique) at Bordeaux Institute of Technology, France. During her master's, she carried out an internship in the Institute of Polymer Research in Helmholtz-Zentrum Hereon under the supervision of Prof. Volker Abetz and Dr. Volkan Filiz for 10 months, in Hamburg, Germany. Herein, she worked on the project of "Post-Modification of PS-b-P4VP Diblock Copolymer Membranes by ARGET ATRP". After completing her master's studies, she moved to the Netherlands and spent one year working at the Delft University of Technology for the project "Crystal Engineering of Metal-Organic Frameworks for Application in Mixed Matrix Membranes" under the supervision of Prof. Freek Kapteijn and Prof. Jorge Gascon. Following, she moved back to Hamburg and worked on the project of "Corrosion Protection by Polyurethane Coatings on Mg and Mg Alloys" in Helmholtz-Zentrum Hereon for about 20 months. In 2017, she started her Ph.D. training in the Department of Biomedical Engineering at the University Medical Center Groningen and the University of Groningen under the supervision of Prof. Henny van der Mei and Prof. Patrick van Rijn. The subject of her research was developing antifouling and antibacterial nanogel coatings to prevent biomaterial-associated infections. As the last milestone in her Ph.D. project, she had 5 months external research stay at ETH Zurich and EMPA in Switzerland in the group of Prof. Edmondo Benetti with the collaboration of Prof. Krzysztof Matyjaszewski at Carnegie Mellon University (USA). Currently, she is a postdoctoral candidate in the Department of Biomedical Engineering at the University Medical Center Groningen.

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1. D. KESKIN*, D. Ghosh*, C. Rosman, R. Bron, A. M. Forson, C. Siebenmorgen, G. Zu, T. van Kooten, J. Sjollema, H. van der Mei, M. Witjes, P. van Rijn. *A universal nanogel-based coating approach for medical implant materials*, (2021) Submitted.
2. D. KESKIN*, G. Zu*, A. Forson*, L. Tromp, J. Sjollema, P. van Rijn. *Nanogels: a Novel Approach in Antimicrobial Delivery Systems and Antifouling Coatings*, Bioactive Materials, (2021) doi: 10.1016/j.bioactmat.2021.03.004
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9. D. KESKIN, T. Mokabbar, Y. Pei, P. van Rijn. *The Relationship between Bulk Silicone and Benzophenone-Initiated Hydrogel Coating Properties*, Polymers, (2018) doi: 10.3390/polym10050534

10. Pustovarenko, M. Goesten, S. Sachdeva, M. Shan, Z. Amghouz, A. Dikhtiarenko, T. Rodenas, D. KESKIN, I. Voets, B. Weckhuysen, L.C.P.M. de Smet, E.J.R. Sudhölter, F. Kapteijn, B. Seoane, J. Gascon. *Nanosheets of non-layered aluminium Metal-Organic Frameworks through a surfactant assisted method*, *Advanced Materials*, (2017) doi: 10.1002/adma.201707234
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