

Further Publications

Dr. Thomas Schmaltz

- Baolin Zhao, Bastian Gothe, Arthur Groh, Thomas Schmaltz, Johannes Will, Hans-Georg Steinrück, Tobias Unruh, Stefan Mecking, Marcus Halik (2021): [Oligothiophene Phosphonic Acids for Self-Assembled Monolayer Field-Effect Transistors](#). In: ACS Applied Materials & Interfaces 13 (27), 32461-32466.
- Regina J Hafner, Liangfei Tian, Jan C Brauer, Thomas Schmaltz, Andrzej Sienkiewicz, Sandor Balog, Valentin Flauraud, Juergen Brugger, Holger Frauenrath (2018): [Unusually Long-Lived Photocharges in Helical Organic Semiconductor Nanostructures](#). In: ACS nano 12 (9), 9116-9125.
- Xiaoyu Li, Piotr J Wolanin, Liam R MacFarlane, Robert L Harniman, Jieshu Qian, Oliver EC Gould, Thomas G Dane, John Rudin, Martin J Cryan, Thomas Schmaltz, Holger Frauenrath, Mitchell A Winnik, Charl FJ Faul, Ian Manners (2017): [Uniform electroactive fibre-like micelle nanowires for organic electronics](#). In: Nature communications 8, 15909.
- Thomas Schmaltz, Giuseppe Sforazzini, Thomas Reichert, Holger Frauenrath (2017): [Self-Assembled Monolayers as Patterning Tool for Organic Electronic Devices](#). In: Advanced Materials 29 (18), 1605286.
- Hanno Dietrich, Thomas Schmaltz, Marcus Halik, Dirk Zahn (2017): [Molecular dynamics simulations of phosphonic acid–aluminum oxide self-organization and their evolution into ordered monolayers](#). In: Physical Chemistry Chemical Physics 19 (7), 5137-5144.
- Thomas Schmaltz, Bastian Gothe, Andreas Krause, Susanne Leitherer, Hans-Georg Steinrück, Michael Thoss, Timothy Clark, Marcus Halik (2017): [Effect of Structure and Disorder on the Charge Transport in Defined Self-Assembled Monolayers of Organic Semiconductors](#). In: ACS Nano 11 (9), 8747–8757.
- Julien Cretenoud, Bilal Özen, Thomas Schmaltz, Daniel Görl, Alberto Fabrizio, Clémence Corminboeuf, Farzaneh Fadaei Tirani, Rosario Scopelliti, Holger Frauenrath (2017): [Synthesis and characterization of semiaromatic polyamides comprising benzofurobenzofuran repeating units](#). In: Polymer Chemistry 8 (14), 2197-2209.
- Tyler T Clikeman, Thomas Schmaltz, Marcus Halik, Andreas Hirsch, Steven H Strauss, Olga V Boltalina (2017): [Formation of Perfluoroalkyl Fullerene Alkylphosphonic Acid Self-Assembled Monolayers on Aluminum Oxide](#). In: ECS Journal of Solid State Science and Technology 6 (6), M3163.

- Artoem Khassanov, Hans-Georg Steinrück, Thomas Schmaltz, Andreas Magerl, Marcus Halik (2015): [Structural Investigations of Self-Assembled Monolayers for Organic Electronics: Results from X-ray Reflectivity](#). In: Accounts of chemical research 48 (7), 1901-1908
- Thomas Schmaltz, Marcus Halik (2015): [Fullerene-Based FETs](#). In: Encyclopedia of Polymeric Nanomaterials, 829-839.
- Thomas Schmaltz (2015): [Molecular order in p-and n-type self-assembled monolayer field-effect transistors](#). Dissertation, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU).
- Thomas Schmaltz, Artoem Khassanov, Hans-Georg Steinrück, Andreas Magerl, Andreas Hirsch, Marcus Halik (2014): [Tuning the molecular order of C 60-based self-assembled monolayers in field-effect transistors](#). In: Nanoscale 6 (21), 13022-13027.
- Artoem Khassanov, Thomas Schmaltz, Hans-Georg Steinrück, Andreas Magerl, Andreas Hirsch, Marcus Halik (2014): [Interface Engineering of Molecular Charge Storage Dielectric Layers for Organic Thin-Film Memory Transistors](#). In: Advanced Materials Interfaces 1 (9), 1400238.
- Marco Sarcletti, Thomas Schmaltz, Marcus Halik (2014): [The mutual influence of surface energy and substrate temperature on the saturation mobility in organic semiconductors](#). In: Organic Electronics 15 (11), 3082-3086.
- Thilo Bauer, Thomas Schmaltz, Thomas Lenz, Marcus Halik, Bernd Meyer, Timothy Clark (2013): [Phosphonate-and carboxylate-based self-assembled monolayers for organic devices: a theoretical study of surface binding on aluminum oxide with experimental support](#). In: ACS applied materials & interfaces 5 (13), 6073-6080.
- Thomas Schmaltz, Atefeh Y Amin, Artoem Khassanov, Timo Meyer-Friedrichsen, Hans-Georg Steinrück, Andreas Magerl, Juan José Segura, Kislun Voitchovsky, Francesco Stellacci, Marcus Halik (2013): [Low-Voltage Self-Assembled Monolayer Field-Effect Transistors on Flexible Substrates](#). In: Advanced Materials 25 (32), 4511-4514.
- Christof M Jäger, Thomas Schmaltz, Michael Novak, Artoem Khassanov, Alexei Vorobiev, Matthias Hennemann, Andreas Krause, Hanno Dietrich, Dirk Zahn, Andreas Hirsch, Marcus Halik, Timothy Clark (2013): [Improving the charge transport in self-assembled monolayer field-effect transistors: from theory to devices](#). In: Journal of the American Chemical Society 135 (12), 4893-4900.
- Zhenxing Wang, Saeideh Mohammadzadeh, Thomas Schmaltz, Johannes Kirschner, Artoem Khassanov, Siegfried Eigler, Udo Mundloch, Claudia Backes, Hans-Georg Steinrück, Andreas Magerl, Frank Hauke, Andreas Hirsch, Marcus Halik (2013): [Region-Selective Self-Assembly of Functionalized Carbon Allotropes from Solution](#). In: ACS nano 7 (12), 11427-11434.
- Thomas Lenz, Thomas Schmaltz, Michael Novak, Marcus Halik (2012): [Self-assembled monolayer exchange reactions as a tool for channel interface engineering in low-voltage organic thin-film transistors](#). In: Langmuir 28 (39), 13900-13904
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