

List of Publications and Patents of Prof. Dr. Martin U. Piepenbring (formerly Schmidt)

June 2026

Publications

This list also contains a few other major publications of the group of Martin U. Piepenbring, to which M.U. Piepenbring contributed, but is not listed as co-author. These publications are marked with "G".

- 169) Sylvia Reibeling, Tatiana E. Gorelik*, Eiken Haussühl, Nick Liebisch, Martin U. Piepenbring*: *Electron diffraction and crystal engineering of Pigment Red 5*, $C_{30}H_{31}ClN_4O_7S$, *CrystEngComm*, **2026**, 28, 3558-3578, doi.org/10.1039/d6ce00140h
With title cover.
- 168) Yaşar Krysiak*, Sergi Plana-Ruiz, Lothar Fink, Edith Alig, Ulrich Bahn Müller, Ute Kolb, Martin U. Schmidt*: *High temperature electron diffraction on organic crystals: in situ crystal structure determination of Pigment Orange 34*, *J. Am. Chem. Soc.*, **2024**, 146, 9880-9887, doi.org/10.1021/jacs.3c14800.
- 167) Federica Bravetti, Robert Hühn, Simone Bordignon, Sylvia Reibeling, Martin U. Schmidt*: *Crystal structure and tautomeric state of Pigment Red 48:2 from X-ray powder diffraction and solid-state NMR*, *Z. Kristallogr.*, **2024**, 239, 283-297, doi.org/10.1515/zkri-2023-0042.
- 166) Federica Bravetti, Lukas Tapmeyer, Kathrin Skorodumov, Edith Alig, Stefan Habermehl, Robert Hühn, Simone Bordignon, Angelo Gallo, Carlo Nervi, Michele R. Chierotti, Martin U. Schmidt*: *Leucopterin, the white pigment in butterfly wings: structural analysis by PDF fit, FIDEL fit, Rietveld refinement, solid-state NMR and DFT-D*, *IUCrJ*, **2023**, 10, 448-463, doi.org/10.1107/S2052252523004281.
With title cover.
- 165) Jacco van de Streek*, Svetlana N. Ivashevskaya, Martin U. Schmidt: *Crystal structures of two phases of Pigment Yellow 110 from X-ray powder diffraction data*, *Z. Kristallogr.*, **2023**, 238, 217-223, doi.org/10.1515/zkri-2023-0003.
- 164) Tatiana E. Gorelik*, Sándor L. Bekő, Jaroslav Teteruk, Winfried Heyse, Martin U. Schmidt*: *Analysis of diffuse scattering in electron diffraction data for the crystal structure determination of Pigment Orange 13*, $C_{32}H_{24}Cl_2N_8O_2$, *Acta Cryst.* **2023**, B79, 122-137, doi.org/10.1107/S2052520623000720.
- 163) Dominik Brey, Barbara Scherer, Martin U. Schmidt*: *Lattice defects in quinacridone*, *Acta Cryst.* **2022**, B78, 763-780, doi.org/10.1107/S205252062200779X.

- 162) Carina Schlesinger, Arnd Fitterer, Christian Buchsbaum, Stefan Habermehl, Michele R. Chierotti, Carlo Nervi, Martin U. Schmidt*:
Ambiguous structure determination from powder data: four different structural models of 4,11-di-fluoro-quinacridone with similar X-ray powder patterns, fit to the PDF, SSNMR and DFT-D,
IUCrJ, **2022**, 9, 406–424, doi.org/10.1107/S2052252522004237.
Highlighted by a scientific commentary:
Angela Altomare:
Solving molecular compounds from powder diffraction data: are results always reliable?
IUCrJ, **2022**, 9, 403–405, doi.org/10.1107/S2052252522006571.
- 161) A. I. Arns*, D. Evans, R. Schiebel, L. Fink, M. Mezger, E. Alig, J. Linckens, K. P. Jochum, M. U. Schmidt, A. Jantschke, G. H. Haug:
Mesocrystalline architecture in hyaline foraminifer shells indicates a non-classical crystallisation pathway,
Geochemistry, Geophysics, Geosystems, **2022**, 23, e2022GC010445,
doi.org/10.1029/2022GC010445.
- 160) Stefan Habermehl, Carina Schlesinger, Martin U. Schmidt*:
Structure determination from unindexed powder data from scratch by a global optimization approach using pattern comparison based on cross-correlation functions,
Acta Cryst., **2022**, B78, 195–213, doi.org/10.1107/S2052520622001500.
Highlighted by a scientific commentary:
Kenneth D. M. Harris:
Circumventing a challenging aspect of crystal structure determination from powder diffraction data,
Acta Cryst., **2022**, B78, 96–99, doi.org/10.1107/S2052520622003717.
- 159) Federica Bravetti, Simone Bordignon, Edith Alig, Daniel Eisenbeil, Lothar Fink, Carlo Nervi*, Roberto Gobetto, Martin U. Schmidt, Michele R. Chierotti*:
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Chem. Eur. J., **2022**, 28, e202103589/1–10, doi.org/10.1002/chem.202103589.
- 158) Jürgen Brüning, Svetlana N. Ivashevskaya, Jacco van de Streek, Edith Alig, Martin U. Schmidt*:
Industrial azomethine nickel complex pigments. Four crystal structures from X-ray powder diffraction data,
Z. Kristallogr., **2021**, 236, 105–115, doi.org/10.1515/zkri-2021-2005.
- 157) Jacco van de Streek, Tatiana E. Gorelik, Martin U. Schmidt*:
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Dyes and Pigments, **2021**, 196, 109456, doi.org/10.1016/j.dyepig.2021.109456.
- 156) Tatiana E. Gorelik*, Stefan Habermehl, Aleksandr A. Shubin, Tim Gruene, Kaname Yoshida, Peter Oleynikov, Ute Kaiser, Martin U. Schmidt:
Crystal structure of copper perchlorophthalocyanine analysed by 3D electron diffraction,
Acta Cryst., **2021**, B77, 662–675, doi.org/10.1107/S2052520621006806.

- G155b) Carina Schlesinger, Stefan Habermehl, Dragica Prill*:
Structure determination of organic compounds by a fit to the pair distribution function from scratch without prior indexing,
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- G155a) Stefan Habermehl, Carina Schlesinger, Dragica Prill*:
Comparison and evaluation of pair distribution functions, using a similarity measure based on cross-correlation functions,
J. Appl. Cryst. **2021**, 54, 612–623, doi.org/10.1107/S1600576721001722.
- 155) Lukas Tapmeyer, Daniel Eisenbeil, Michael Bolte, Martin U. Schmidt*:
First crystal structure of a Pigment Red 52 compound: DMSO solvate hydrate of the monosodium salt,
Acta Cryst., **2021**, E77, 402–405, doi.org/10.1107/S2056989021002577.
- 154) Maurice Beske, Stephanie Cronje, Martin U. Schmidt*, Lukas Tapmeyer:
Disordered sodium alkoxides from powder data: crystal structures of sodium ethoxide, propoxide, butoxide and pentoxide, and some of their solvates,
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- 153) Fabian Jung, Manuela Thurn, Katharina Krollik, David Li, Jennifer Dressman, Edith Alig, Lothar Fink, Martin U. Schmidt, Matthias G. Wacker*:
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Eur. J. Pharm. Biopharm., **2021**, 160, 23–34, doi.org/10.1016/j.ejpb.2021.01.007.
- 152) Carina Schlesinger, Edith Alig, Martin U. Schmidt*:
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- 151) Lukas Tapmeyer, Michael Bolte, Michele R. Chierotti, Martin U. Schmidt*:
Structure of the intermediates in the industrial separation of perinone isomers,
Dyes and Pigments, **2020**, 181, 108442, doi.org/10.1016/j.dyepig.2020.108442.
- 150) Carina Schlesinger, Sonja M. Hammer, Tatiana E. Gorelik, Martin U. Schmidt*:
Orientational disorder of monomethyl-quinacridone investigated by Rietveld refinement, structure refinement to the pair distribution function and lattice-energy minimizations,
Acta Cryst., **2020**, B76, 353–365, doi.org/10.1107/S2052520620003984.
- 149) Maurice Beske, Lukas Tapmeyer, Martin U. Schmidt*:
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- G148a) Lukas Tapmeyer, Steven Hill, Michael Bolte, Wilhelm Maximilian Hützler:
Two monosodium salt hydrates of Colour Index Pigment Red 48
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- 148) Miriam Heine, Lothar Fink*, Martin U. Schmidt:
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- 147) Katharina Edkins*, Garry J. McIntyre, Clive Wilkinson, Volker Kahlenberg, Daniel Többsen, Ulrich J. Griesser, Jürgen Brüning, Martin U. Schmidt, and Jonathan W. Steed:
Extensive sequential polymorphic interconversion in the solid state: two hydrates and ten anhydrous phases of hexamidine diisethionate,
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CrystEngComm, **2019**, 21, 4305-4318, doi.org/10.1039/C9CE00412B.
- 144) Inês C. B. Martins, Mariana Sardo, Edith Alig, Lothar Fink, Martin U. Schmidt, Luís Mafrá*, M. Teresa Duarte*:
Enhancing adamantylamine solubility through salt formation: novel products studied by X-ray diffraction and solid-state NMR,
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- 143) D. A. Zhrebtssov, M. U. Schmidt, R. Niewa, C. P. Sakthidharan, F. V. Podgornov, Y. V. Matveychuk, S. A. Nayfert, M. A. Polozov, S. N. Ivashevskaya, A. I. Stash, Yu-Sheng Chen, D. E. Zhivulin, V. E. Zhivulin, S. V. Merzlov, E. V. Bartashevich, V. V. Avdin, Hua Shu Hsu, Feng Wei Guo:
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- 142) Klaus Hunger, Martin U. Schmidt:
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Challenging structure determination from powder diffraction data: two pharmaceutical salts and one cocrystal with $Z' = 2$,
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- 140) Miriam Heine, Lothar Fink, Martin U. Schmidt*:
3-Cyanopyridine as a bridging and terminal ligand in coordination polymers,
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- 139) B. Dittrich*, F. P. A. Fabbiani, J. Henn, M. U. Schmidt, P. Macchi, K. Meindl, M. A. Spackman:
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Bestimmung der absoluten Konfiguration pharmazeutischer Wirkstoffe durch Röntgenpulverdiffraktometrie,
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- 136) Alexander G. Shtukenberg*, Chunhua T. Hu, Qiang Zhu, Martin U. Schmidt, Wenqian Xu, Melissa Tan, Kahr, Bart:
The third ambient aspirin polymorph,
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- 134) Jérôme Roeser*, Dragica Prill, Michael J. Bojdys, Pierre Fayon, Abbie Trewin, Andrew N. Fitch, Martin U. Schmidt, Arne Thomas* :
Anionic silicate organic frameworks constructed from hexacoordinate silicon centres,
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- 133) Daniela Hempler, Martin U. Schmidt, Jacco van de Streek* :
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- 132) Christian Czech, Lena Kalinowsky, Martin U. Schmidt* :
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4-Cyanopyridine, a versatile mono- and bidentate ligand. Crystal structures of related coordination polymers determined by X-ray powder diffraction,

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- 125) Dragica Prill, Pavol Juhás, Simon J. L. Billinge*, Martin U. Schmidt*:
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