

# Hubertus, Marbach

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3345127/publications.pdf>

Version: 2024-02-01

99  
papers

3,019  
citations

136950

32  
h-index

182427

51  
g-index

104  
all docs

104  
docs citations

104  
times ranked

2259  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Principle and Mechanism of Direct Porphyrin Metalation: Joint Experimental and Theoretical Investigation. <i>Journal of the American Chemical Society</i> , 2007, 129, 9476-9483.                                   | 13.7 | 167       |
| 2  | Coordination of Iron Atoms by Tetraphenylporphyrin Monolayers and Multilayers on Ag(111) and Formation of Iron-Tetraphenylporphyrin. <i>Journal of Physical Chemistry C</i> , 2008, 112, 15458-15465.               | 3.1  | 147       |
| 3  | Direct Metalation of a Phthalocyanine Monolayer on Ag(111) with Coadsorbed Iron Atoms. <i>Journal of Physical Chemistry C</i> , 2008, 112, 6087-6092.   | 3.1  | 128       |
| 4  | Surface-Mediated <i>in Situ</i> Metalation of Porphyrins at the Solid-Vacuum Interface. <i>Accounts of Chemical Research</i> , 2015, 48, 2649-2658.   | 15.6 | 114       |
| 5  | Ordering aspects and intramolecular conformation of tetraphenylporphyrins on Ag(111). <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 13082.   | 2.8  | 102       |
| 6  | Microscopic Evidence of the Metalation of a Free-Base Porphyrin Monolayer with Iron. <i>ChemPhysChem</i> , 2007, 8, 241-243.  | 2.1  | 95        |
| 7  | Electron-Beam-Induced Deposition in Ultrahigh Vacuum: Lithographic Fabrication of Clean Iron Nanostructures. <i>Small</i> , 2008, 4, 841-846.   | 10.0 | 94        |
| 8  | Surface-Confined Coordination Chemistry with Porphyrins and Phthalocyanines: Aspects of Formation, Electronic Structure, and Reactivity. <i>Zeitschrift Fur Physikalische Chemie</i> , 2009, 223, 53-74.            | 2.8  | 89        |
| 9  | Diffusion, Rotation, and Surface Chemical Bond of Individual 2 <i>H</i> -Tetraphenylporphyrin Molecules on Cu(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 24172-24177.                                | 3.1  | 74        |
| 10 | Adsorption of cobalt (II) octaethylporphyrin and 2 <i>H</i> -octaethylporphyrin on Ag(111): new insight into the surface coordinative bond. <i>New Journal of Physics</i> , 2009, 11, 125004.                       | 2.9  | 73        |
| 11 | Electrons as "Invisible Ink": Fabrication of Nanostructures by Local Electron Beam Induced Activation of SiO <sub>2</sub> . <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4669-4673.                 | 13.8 | 71        |
| 12 | Temperature-Dependent Chemical and Structural Transformations from 2 <i>H</i> -tetraphenylporphyrin to Copper(II)-Tetraphenylporphyrin on Cu(111). <i>Journal of Physical Chemistry C</i> , 2012, 116, 12275-12282. | 3.1  | 68        |
| 13 | Activation Energy for the Self-Metalation Reaction of 2 <i>H</i> -Tetraphenylporphyrin on Cu(111). <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10898-10901.  | 13.8 | 68        |
| 14 | Understanding the Contrast Mechanism in Scanning Tunneling Microscopy (STM) Images of an Intermixed Tetraphenylporphyrin Layer on Ag(111). <i>Langmuir</i> , 2008, 24, 1897-1901.                                   | 3.5  | 62        |
| 15 | Chemical Fingerprints of Large Organic Molecules in Scanning Tunneling Microscopy: Imaging Adsorbate-Substrate Coupling of Metalloporphyrins. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16450-16457.      | 3.1  | 61        |
| 16 | Promoter-Induced Reactive Phase Separation in Surface Reactions. <i>Physical Review Letters</i> , 2004, 92, 198305.   | 7.8  | 57        |
| 17 | Polymorphism of Porphyrin Molecules on Ag(111) and How to Weave a Rigid Monolayer. <i>Journal of Physical Chemistry C</i> , 2007, 111, 13531-13538.   | 3.1  | 56        |
| 18 | Studying the dynamic behaviour of porphyrins as prototype functional molecules by scanning tunnelling microscopy close to room temperature. <i>Chemical Communications</i> , 2014, 50, 9034-9048.                   | 4.1  | 54        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Photoelectron spectromicroscopy of electrochemically induced oxygen spillover at the Pt/YSZ interface. <i>Chemical Physics Letters</i> , 2000, 316, 331-335.  | 2.6  | 51        |
| 20 | Abrupt Coverage-Induced Enhancement of the Self-Metalation of Tetraphenylporphyrin with Cu(111). <i>Journal of Physical Chemistry C</i> , 2014, 118, 1661-1667.   | 3.1  | 51        |
| 21 | Substrate-Mediated Phase Separation of Two Porphyrin Derivatives on Cu(111). <i>Chemistry - A European Journal</i> , 2011, 17, 10226-10229.   | 3.3  | 50        |
| 22 | Insights in Reaction Mechanistic: Isotopic Exchange during the Metalation of Deuterated Tetraphenyl- $^{21,23}\text{D}$ -porphyrin on Cu(111). <i>Journal of Physical Chemistry C</i> , 2014, 118, 26729-26736.             | 3.1  | 47        |
| 23 | NO-Induced Reorganization of Porphyrin Arrays. <i>ACS Nano</i> , 2009, 3, 1789-1794.  | 14.6 | 43        |
| 24 | Development and performance of the nanoworkbench: A four tip STM for conductivity measurements down to submicrometer scales. <i>Review of Scientific Instruments</i> , 2005, 76, 045107.                                    | 1.3  | 42        |
| 25 | On the Energetics of Conformational Switching of Molecules at and Close to Room Temperature. <i>Journal of the American Chemical Society</i> , 2014, 136, 1609-1616.  | 13.7 | 40        |
| 26 | $\text{O}_2$ adsorption dependent photoluminescence emission from metal oxide nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 23922-23929.  | 2.8  | 38        |
| 27 | $\pi$ -Inverted-porphyrins: a distorted adsorption geometry of free-base porphyrins on Cu(111). <i>Chemical Communications</i> , 2017, 53, 8207-8210.   | 4.1  | 38        |
| 28 | Generation of Clean Iron Structures by Electron-Beam-Induced Deposition and Selective Catalytic Decomposition of Iron Pentacarbonyl on Rh(110). <i>Langmuir</i> , 2009, 25, 11930-11939.                                    | 3.5  | 37        |
| 29 | Surface-Anchored Metal-Organic Frameworks as Versatile Resists for Gas-Assisted E-Beam Lithography: Fabrication of Sub-10 Nanometer Structures. <i>ACS Nano</i> , 2018, 12, 3825-3835.                                      | 14.6 | 36        |
| 30 | Selforganization of Alkali Metal on a Catalytic Metal Surface. <i>Catalysis Letters</i> , 2002, 83, 161-164.  | 2.6  | 34        |
| 31 | Coverage Dependent Disorder-Order Transition of 2H-Tetraphenylporphyrin on Cu(111). <i>Langmuir</i> , 2013, 29, 4104-4110.  | 3.5  | 33        |
| 32 | Ordered phases in alkali redistribution during a catalytic surface reaction. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 2730-2735.   | 2.8  | 32        |
| 33 | Electron-beam-induced deposition of carbon films on Si(100) using chemisorbed ethylene as a precursor molecule. <i>Surface Science</i> , 2004, 571, 128-138.  | 1.9  | 31        |
| 34 | Hungry Porphyrins: Protonation and Self-Metalation of Tetraphenylporphyrin on $\text{TiO}_2(110)$ $\sim 1 \text{ \AA}$ . <i>ChemistrySelect</i> , 2016, 1, 6103-6105.   | 1.5  | 30        |
| 35 | Adsorption Behavior of a Cyano-Functionalized Porphyrin on Cu(111) and Ag(111): From Molecular Wires to Ordered Supramolecular Two-Dimensional Aggregates. <i>Journal of Physical Chemistry C</i> , 2017, 121, 26361-26371. | 3.1  | 29        |
| 36 | Massive conformational changes during thermally induced self-metalation of 2H-tetrakis-(3,5-di-tert-butyl)-phenylporphyrin on Cu(111). <i>Chemical Communications</i> , 2014, 50, 10225-10228.                              | 4.1  | 27        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 37 | Controlling the Self-Metalation Rate of Tetraphenylporphyrins on Cu(111) via Cyano Functionalization. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10074-10079.                                       | 13.8 | 24        |
| 38 | Mass transport of alkali metal in reaction fronts on a catalytic metal surface. <i>Chemical Physics Letters</i> , 2002, 364, 207-212.   | 2.6  | 23        |
| 39 | Electron Beam-Induced Writing of Nanoscale Iron Wires on a Functional Metal Oxide. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17674-17679.   | 3.1  | 23        |
| 40 | Electron-beam induced deposition and autocatalytic decomposition of $\text{Co}(\text{CO})_3\text{NO}$ . <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 1175-1185.  | 2.8  | 23        |
| 41 | Electron beam induced surface activation: a method for the lithographic fabrication of nanostructures via catalytic processes. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 987-995.       | 2.3  | 23        |
| 42 | Generation of clean iron nanocrystals on an ultra-thin $\text{SiO}_x$ film on Si(001). <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 17333.  | 2.8  | 22        |
| 43 | Magnetotransport properties of iron microwires fabricated by focused electron beam induced autocatalytic growth. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 425001.  | 2.8  | 22        |
| 44 | Modification of the Growth of Iron on Ag(111) by Predeposited Organic Monolayers. <i>Zeitschrift Fur Physikalische Chemie</i> , 2009, 223, 131-144.   | 2.8  | 21        |
| 45 | Investigation of proximity effects in electron microscopy and lithography. <i>Applied Physics Letters</i> , 2012, 100, .  | 3.3  | 21        |
| 46 | Towards the engineering of molecular nanostructures: local anchoring and functionalization of porphyrins on model-templates. <i>Nanotechnology</i> , 2013, 24, 115305.  | 2.6  | 19        |
| 47 | Coverage- and Temperature-Dependent Metalation and Dehydrogenation of Tetraphenylporphyrin on Cu(111). <i>Chemistry - A European Journal</i> , 2014, 20, 8948-8953.   | 3.3  | 19        |
| 48 | Region-Selective Deposition of Core-Shell Nanoparticles for Hierarchical Assemblies by the Huisgen 1,3-dipolar Cycloaddition. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9235-9238.                 | 13.8 | 19        |
| 49 | Electron-beam-induced deposition and post-treatment processes to locally generate clean titanium oxide nanostructures on Si(100). <i>Nanotechnology</i> , 2011, 22, 085301.   | 2.6  | 17        |
| 50 | Mathematical Modeling of Reactive Phase Separation in the System $\text{Rh}(110)/\text{K}/\text{O}_2 + \text{H}_2$ . <i>Journal of Physical Chemistry B</i> , 2004, 108, 14620-14626.                                 | 2.6  | 16        |
| 51 | Defects in Oxygen-Depleted Titanate Nanostructures. <i>Langmuir</i> , 2012, 28, 7851-7858.  | 3.5  | 16        |
| 52 | Self-assembly and coverage dependent thermally induced conformational changes of Ni(meso-tetrakis (4-tert-butylphenyl) benzoporphyrin on Cu(111). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 13066-13073. | 2.8  | 16        |
| 53 | Role of Specific Intermolecular Interactions for the Arrangement of Ni(II)-5, 10, 15, 20-Tetraphenyltetrabenzoporphyrin on Cu(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 19897-19905.                  | 3.1  | 16        |
| 54 | Electron Beam-Induced Surface Activation of Metal-Organic Framework HKUST-1: Unraveling the Underlying Chemistry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 26658-26670.                                    | 3.1  | 16        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | On the origin of stationary concentration patterns in the H <sub>2</sub> +O <sub>2</sub> reaction on a microstructured Rh(110)/Pt surface with potassium. <i>Journal of Chemical Physics</i> , 2002, 117, 2923-2933. | 3.0 | 15        |
| 56 | K and mixed K+O adlayers on Rh(110). <i>Journal of Chemical Physics</i> , 2006, 124, 014706.   | 3.0 | 15        |
| 57 | Electron Beam Induced Surface Activation of Ultrathin Porphyrin Layers on Ag(111). <i>Langmuir</i> , 2013, 29, 12290-12297.  | 3.5 | 15        |
| 58 | Cyano-Functionalized Porphyrins on Cu(111) from One-Dimensional Wires to Two-Dimensional Molecular Frameworks: On the Role of Co-Deposited Metal Atoms. <i>Chemistry of Materials</i> , 2020, 32, 2114-2122.         | 6.7 | 14        |
| 59 | Mass transport of alkali metal with pulses: catalytic NO reduction with hydrogen on Rh(110)/K. <i>Chemical Physics Letters</i> , 2004, 395, 64-69.   | 2.6 | 13        |
| 60 | On the critical role of the substrate: the adsorption behaviour of tetrabenzoporphyrins on different metal surfaces. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 20281-20289.                             | 2.8 | 13        |
| 61 | Core level spectroscopy and reactivity of coadsorbed K+O layers on reconstructed Rh(110) surfaces. <i>Journal of Chemical Physics</i> , 2003, 119, 12503-12509.  | 3.0 | 12        |
| 62 | The Effect of Coadsorbed Oxygen on the Adsorption and Diffusion of Potassium on Rh(110): A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2007, 111, 7446-7455.                                    | 3.1 | 12        |
| 63 | Formation of Highly Ordered Molecular Porous 2D Networks from Cyano-Functionalized Porphyrins on Cu(111). <i>Chemistry - A European Journal</i> , 2020, 26, 13408-13418.   | 3.3 | 12        |
| 64 | Spatial variations of the interface composition during surface chemical reactions. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001, 114-116, 989-996.   | 1.7 | 11        |
| 65 | DIRECTIONAL TRANSPORT OF K ON CATALYTIC METAL SURFACES. <i>Surface Review and Letters</i> , 2002, 09, 751-758.   | 1.1 | 11        |
| 66 | Thin membranes versus bulk substrates: investigation of proximity effects in focused electron beam-induced processing. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 225306.                                 | 2.8 | 11        |
| 67 | Metastable impact electron emission microscopy of the catalytic H <sub>2</sub> oxidation on Rh(). <i>Surface Science</i> , 2003, 532-535, 132-136.   | 1.9 | 10        |
| 68 | Photoelectron Spectromicroscopy of Potassium Redistribution in the O <sub>2</sub> + H <sub>2</sub> Reaction on Rh(110). <i>Journal of Physical Chemistry B</i> , 2004, 108, 15182-15191.                             | 2.6 | 10        |
| 69 | Methylated [(arene)(1,3-cyclohexadiene)Ru(0)] complexes as low-melting MOCVD precursor complexes with a controlled follow-up chemistry of the ligands. <i>Journal of Materials Chemistry</i> , 2011, 21, 3014.       | 6.7 | 10        |
| 70 | On the magnetic properties of iron nanostructures fabricated via focused electron beam induced deposition and autocatalytic growth processes. <i>Nanotechnology</i> , 2016, 27, 355302.                              | 2.6 | 10        |
| 71 | Low Energy Electron- and Ion-Induced Surface Reactions of Fe(CO) <sub>5</sub> Thin Films. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17749-17760.   | 3.1 | 10        |
| 72 | On the Principles of Tweaking Nanostructure Fabrication via Focused Electron Beam Induced Processing Combined with Catalytic Growth Processes. <i>Small Methods</i> , 2017, 1, 1700095.                              | 8.6 | 9         |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 73 | Methylated [(benzene)(1,3-butadiene)Ru <sub>0</sub> ] Derivatives as Novel MOCVD Precursors with Favorable Properties. <i>Chemical Vapor Deposition</i> , 2011, 17, 15-21.   | 1.3  | 8         |
| 74 | Fabrication of layered nanostructures by successive electron beam induced deposition with two precursors: protective capping of metallic iron structures. <i>Nanotechnology</i> , 2011, 22, 475304.  | 2.6  | 8         |
| 75 | Additive fabrication of nanostructures with focused soft X-rays. <i>RSC Advances</i> , 2016, 6, 98344-98349.   | 3.6  | 8         |
| 76 | Kontrolle der Selbstmetallierungsrate von Tetraphenylporphyrinen auf Cu(111) durch Funktionalisierung mit Cyangruppen. <i>Angewandte Chemie</i> , 2018, 130, 10230-10236.  | 2.0  | 8         |
| 77 | Comparative study of the carbide-modified surfaces<br>$C_{110}Mo_{100}$<br>Exploring the fabrication of Co and Mn nanostructures with focused soft x-ray beam induced deposition. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017, 35, 031601. | 3.2  | 7         |
| 78 | Exploring the fabrication of Co and Mn nanostructures with focused soft x-ray beam induced deposition. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017, 35, 031601.  | 1.2  | 7         |
| 79 | Chemistry for electron-induced nanofabrication. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1317-1320.   | 2.8  | 7         |
| 80 | Controlled Electron-Induced Fabrication of Metallic Nanostructures on 1 nm Thick Membranes. <i>Small</i> , 2020, 16, e2003947.   | 10.0 | 7         |
| 81 | Surface Reactions of Low-Energy Argon Ions with Organometallic Precursors. <i>Journal of Physical Chemistry C</i> , 2020, 124, 24795-24808.  | 3.1  | 7         |
| 82 | 2 <i>H</i> -tetrakis(3,5-di- <i>t</i> -butylphenyl)porphyrin on a Cu(110) Surface: Room Temperature Self-Metalation and Surface Reconstruction Facilitated Self-Assembly. <i>Chemistry - A European Journal</i> , 2016, 22, 3347-3354.   | 3.3  | 6         |
| 83 | Metalation and coordination reactions of 2 <i>H</i> -meso-trans-di( <i>p</i> -cyanophenyl)porphyrin on Ag(111) with coadsorbed cobalt atoms. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 25062-25068.   | 2.8  | 6         |
| 84 | Metalation of 2HTCNPP on Ag(111) with Zn: Evidence for the Sitting atop Complex at Room Temperature. <i>ChemPhysChem</i> , 2021, 22, 396-403.  | 2.1  | 6         |
| 85 | Fossil biomass preserved as graphitic carbon in a late Paleoproterozoic banded iron formation metamorphosed at more than 550°C. <i>Journal of the Geological Society</i> , 2019, 176, 651-668.   | 2.1  | 5         |
| 86 | Self-Assembled 2D-Coordination Kagome, Quadratic, and Close-Packed Hexagonal Lattices Formed from a Cyano-Functionalized Benzoporphyrin on Cu(111). <i>Journal of Physical Chemistry C</i> , 2021, 125, 7204-7212.   | 3.1  | 5         |
| 87 | [ <i>cis</i> -(1,3-Diene) <sub>2</sub> W(CO) <sub>2</sub> ] Complexes as MOCVD Precursors for the Deposition of Thin Tungsten Tungsten Carbide Films. <i>Chemical Vapor Deposition</i> , 2010, 16, 239-247.  | 1.3  | 4         |
| 88 | Conformation Controls Mobility: 2H-tetranaphthylporphyrins on Cu(111). <i>ChemPhysChem</i> , 2020, 21, 423-427.  | 2.1  | 4         |
| 89 | On the adsorption of different tetranaphthylporphyrins on Cu(111) and Ag(111). <i>Surface Science</i> , 2022, 720, 122047.   | 1.9  | 4         |
| 90 | Supramolecular order and structural dynamics: A STM study of 2H-tetraphenylporphycene on Cu(111). <i>Journal of Chemical Physics</i> , 2015, 142, 101925.  | 3.0  | 3         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 91 | Focused electron beam based direct-write fabrication of graphene and amorphous carbon from oxo-functionalized graphene on silicon dioxide. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2683-2686.  | 2.8  | 3         |
| 92 | Localized growth of carbon nanotubes via lithographic fabrication of metallic deposits. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 2592-2605.  | 2.8  | 3         |
| 93 | Focused Soft X-Ray Beam Induced Deposition: Recent Advances to a Novel Approach for Fabrication of Metallic Nanostructures. <i>Microscopy and Microanalysis</i> , 2018, 24, 116-117.  | 0.4  | 2         |
| 94 | Ultrathin Carbon Nanomembranes from 5,10,15,20-Tetraphenylporphyrin: Electron Beam Induced Fabrication and Functionalization via Focused Electron Beam Induced Processing. <i>Journal of Physical Chemistry C</i> , 2020, 124, 28335-28344.   | 3.1  | 2         |
| 95 | Nanoscale Ruthenium-Containing Deposits from Ru(CO) <sub>4</sub> I <sub>2</sub> via Simultaneous Focused Electron Beam-Induced Deposition and Etching in Ultrahigh Vacuum: Mask Repair in Extreme Ultraviolet Lithography and Beyond. <i>ACS Applied Nano Materials</i> , 2022, 5, 3855-3865. | 5.0  | 2         |
| 96 | Reversible thermally induced phase transition in ordered domains of Co(II)-5,10,15,20-tetrakis-(3,5-di-tert-butylphenyl)-porphyrin on Cu(111). <i>Surface Science</i> , 2016, 650, 255-262.   | 1.9  | 1         |
| 97 | Frontispiz: Kontrolle der Selbstmetallierungsrate von Tetraphenylporphyrinen auf Cu(111) durch Funktionalisierung mit Cyangruppen. <i>Angewandte Chemie</i> , 2018, 130, .  | 2.0  | 0         |
| 98 | Frontispiece: Controlling the Self-Metalation Rate of Tetraphenylporphyrins on Cu(111) via Cyano Functionalization. <i>Angewandte Chemie - International Edition</i> , 2018, 57, .  | 13.8 | 0         |
| 99 | Exploring the fabrication and transfer mechanism of metallic nanostructures on carbon nanomembranes via focused electron beam induced processing. <i>Beilstein Journal of Nanotechnology</i> , 2021, 12, 319-329.   | 2.8  | 0         |