

## List of publications

Dr. Gregor Kieslich, Liebig Fellow and TU Munich Junior Fellow

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Number of peer reviewed publications: 63

Number of citations: 3468, h-index: 27 (google scholar, October 2021)

### SCIENTIFIC PUBLICATIONS - OVERVIEW

63. P. Vervoorts, J. Stebani, A. S. J. Méndez, G. Kieslich\*. Structural Chemistry of Metal-Organic Frameworks under Hydrostatic Pressures. *ACS Materials Lett.* **2021**, 3, 1635.
62. S. Burger, S. Grover, K. T. Butler, H. L. B. Boström, R. Grau-Crespo\*, G. Kieslich\*. Tilt and Shift Polymorphism in Molecular Perovskites. *Mater. Horiz.* **2021**, 8, 2444.
61. L. Petters, S. Burger, S. Kronawitter, M. Drees, G. Kieslich\*. Linear Negative Thermal Expansion in Pd(acac)<sub>2</sub>. *CrystEngComm.* **2021**, 23, 5425.
60. D. Ukaj, H. Bunzen, J. Berger, G. Kieslich, R. A. Fischer\*. Charge-Transfer-Induced Electrical Conductivity in a Tetrathiafulvalene-Based Metal-Organic Framework. *Chem. Mater.* **2021**, 33, 2532.
59. C. L. Hobday\*, G. Kieslich\*. Structural Flexibility in Crystalline Coordination Polymers: A Journey Along the Underlying Free Energy Landscape. *Dalton. Trans.* **2021**, 50, 3759.
58. C. Kaußler, G. Kieslich\*. crystalT: complexity and configurational entropy of crystal structures via information theory. *J. Appl. Cryst.* **2021**, 54, 306.
57. H. L. B. Boström\*, G. Kieslich\*. Influence of Metal Defects on the Mechanical Properties of ABX<sub>3</sub> Perovskite-Type Metal-formate Frameworks. *J. Phys. Chem. C.* **2021**, 125, 1467.
56. P. Vervoorts, J. Keupp, A. Schneemann, C. L. Hobday, D. Daisenberger, R. A. Fischer, R. Schmid\*, G. Kieslich\*. Configurational Entropy Driven High-Pressure Behaviour of a Flexible Metal-Organic Framework. *Angew. Chem.* **2020**, 60, 787.
55. S. Burger, S. Kronawitter, H. L. B. Boström, J. K. Zareba, G. Kieslich\*. A new polar perovskite coordination network with azaspiroundecane as A-site cation. *Dalton. Trans.* **2020**, 49, 10750.
54. D. Bodesheim, G. Kieslich, M. Johnson, K. T. Butler\*. Understanding the Balance of Entropy and Enthalpy in Hydrogen-Halide Noncovalent Bonding. *J. Phys. Chem. Lett.* **2020**, 11, 3495.
53. C. Schneider, D. Bodesheim, J. Keupp, R. Schmid, G. Kieslich\*. Retrofitting metal-organic frameworks. *Nat. Commun.* **2019**, 10, 4921.
52. Keith T. Butler\*, P. Vervoorts, M. G. Ehrenreich, J. Armstrong, J. M. Skelton, G. Kieslich\*. Experimental Evidence for Vibrational Entropy as Driving Parameter of Flexibility in the Metal-Organic Framework ZIF-4(Zn). *Chem. Mater.* **2019**, 31, 8366-8372.
51. P. Vervoorts, C. L. Hobday, M. G. Ehrenreich, D. Daisenberger, G. Kieslich\*. The Zeolitic Imidazolate Framework ZIF-4 under Low Hydrostatic Pressures. *Z. Anorg. Allg. Chem.* **2019**, 645, 970-974.
50. C. Schneider, D. Bodesheim, M. G. Ehrenreich, V. Crocellà, J. Mink, R. A. Fischer, K. T. Butler, G. Kieslich\*. Tuning the Negative Thermal Expansion Behavior of the Metal-Organic Framework Cu<sub>3</sub>BTC<sub>2</sub> by Retrofitting. *J. Am. Chem. Soc.* **2019**, 141, 10504-10509.
49. D. C. Mayer, A. Manzi, R. Medishetty, B. Winkler, C. Schneider, G. Kieslich, A. Pöthig, J. Feldmann, R. A. Fischer\*. Controlling Multi-Photon Absorption Efficiency by Chromophore Packing in Metal-Organic Frameworks. *J. Am. Chem. Soc.* **2019**, 141, 11594-11602.
48. A. Schneemann, R. Rudolf, S. J. Baxter, P. Vervoorts, I. Hante, K. Khaletskaia, S. Henke, G. Kieslich\*, R. A. Fischer\*. Flexibility control in alkyl ether-functionalized pillared-layered MOFs by a Cu/Zn mixed metal approach. *Dalton Trans.* **2019**, 48, 6564-6570.

47. W. Li, S. Watzel, H. El-sayed, Y. Liang, G. Kieslich, A. S. Bandarenka, K. Rodewald, B. Rieger, R. A. Fischer\*. Unprecedented High Oxygen Evolution Activity of Electrocatalysts Derived from Surface-Mounted Metal-Organic Frameworks. *J. Am. Chem. Soc.* **2019**, 141, 5926-5933.
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45. M. G. Ehrenreich, Z. Zeng, S. Burger, M. R. Warren, M. W. Gaultois, J.-C. Tan\*, G. Kieslich\*. Mechanical Properties of the ferroelectric metal-free perovskites [MDABCO](NH<sub>4</sub>)<sub>3</sub>. *Chem. Commun.* **2019**, 55, 3911-3914.
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43. S. Wannapaiboon, A. Schneemann, I. Hante, M. Tu, K. Epp, A. L. Semrau, C. Sternemann, M. Paulus, S. Baxter, G. Kieslich, R. A. Fischer\*. Control of structural flexibility of layered-pillared metal-organic frameworks anchored at surfaces. *Nat. Commun.* **2019**, 10, 346.
42. G. Kieslich\*, J. M. Skelton, J. Armstrong, Y. Wu, F. Wei, K. L. Svane, A. Walsh, K. T. Butler\*. Hydrogen Bonding versus Entropy: Revealing the Underlying Thermodynamics of the Hybrid Organic-Inorganic Perovskites [CH<sub>3</sub>NH<sub>3</sub>]<sub>3</sub>PbBr<sub>3</sub>. *Chem. Mater.* **2018**, 30, 8782-8788.
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39. S. Burger, M. Ehrenreich, G. Kieslich\*. Tolerance Factors of hybrid perovskites: recent improvements and current state of research. *J. Mater. Chem. A* **2018**, 6, 21785-21793.
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28. G. Kieslich\*, A. Goodwin. The same and note the same: Molecular perovskites and their solid-state analogues. *Mater. Horiz.* **2017**, 4, 362-366.
27. S. Sun, Z. Deng, Y. Wu, F. Wei, F. H. Isikgor, F. Brivio, M. W. Gaultois, J. Ouyang, P.D. Bristowe, A. K. Cheetham\*, G. Kieslich\*. Variable temperature and high-pressure crystal chemistry of perovskite formamidinium lead iodide: A single crystal X-ray diffraction and computational study. *Chem. Commun.* **2017**, 53, 7537-7540.
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20. G. Kieslich, G. Cerretti, I. Veremchuk, R. P. Hermann, M. Panthöfer, Y. Grin, W. Tremel\*. A chemists view: Metal oxides with adaptive structures for thermoelectric applications. *Phys. Status Solidi A* **2016**, 213, 808-823.
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16. Y. Wu, S. Henke, G. Kieslich, I. Schwedler, M. Yang, D. A. X. Fraser, D. O'Hare\*. Time-Resolved In Situ X-ray Diffraction Reveals Metal-Dependent Metal-Organic Framework Formation. *Angew. Chem.* **2016**, 128, 14287-14290.
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