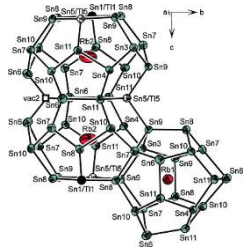
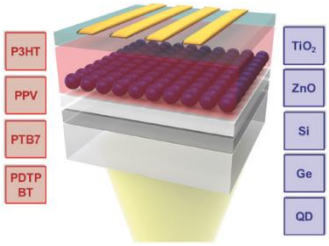
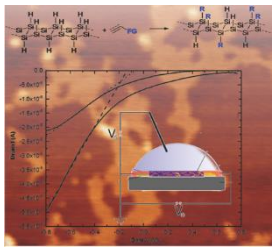
Energy Conversion Materials



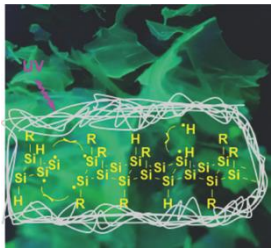
A new type of 2×2×2 superstructure of clathrate-I with $I\bar{4}3d$ symmetry in $A_8Sn_{46-x-y}Tl_x\square_y$ (A = Rb, Cs)
V. Baran, V. Hlukhyy, T. F. Fässler
Z. Anorg. Allg. Chem. 644 (2018), 1456–1463 (DOI: 10.1002/zaac.201800290)



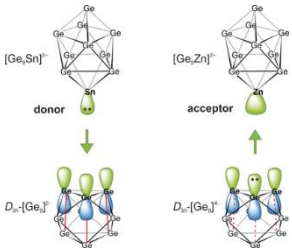
Hybrid Photovoltaics – from Fundamentals towards Application
P. Müller-Buschbaum, M. Thelakkat, T. F. Fässler, M. Stutzmann
Adv. Energy Mater. 7 (2017), 1700248 (DOI: 10.1002/aenm.201700248)



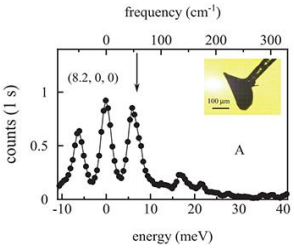
Lewis Acid Induced Functionalization of Photoluminescent 2D Silicon Nanosheets for the Fabrication of Functional Hybrid Films
T. Helbich, A. Lyuleeva, P. Marx, L. M. Scherf, T. Purkait, T. F. Fässler, P. Lugli,J. G. C. Veinot, B. Rieger
Adv. Funct. Mater. 27 (2017), 1606764 (DOI: 10.1002/adfm.201606764)



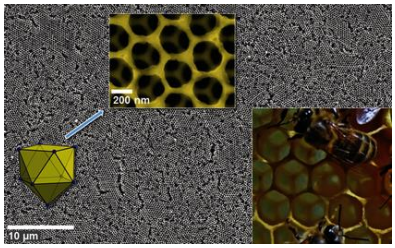
One-Step Synthesis of Photoluminescent Covalent Polymeric Nanocomposites from 2D Silicon Nanosheets
T. Helbich, A. Lyuleeva, T. Ludwig, L. M. Scherf, T. F. Fässler, P. Lugli, B. Rieger
Adv. Funct. Mater. 26 (2016), 6711–6718 (DOI: 10.1002/adfm.201602137)



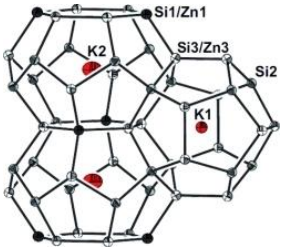
On the Nature of Bridging Metal Atoms in Intermetalloid Clusters: Synthesis and Structure of the Metal-Atom-Bridged Zintl Clusters $[Sn(Ge_9)_2]^{4-}$ and $[Zn(Ge_9)_2)]^{6-}$
M. M. Bentlohner, L.-A. Jantke, T. Henneberger, C. Fischer, K. Mayer, W. Klein, T. F. Fässler
Chem. Eur. J. 22 (2016), 13946–13952 (DOI: 10.1002/chem.201601706)



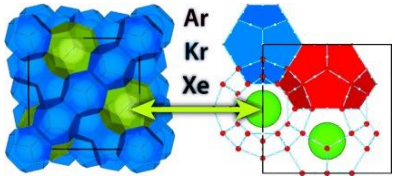
Elastic properties of type-I clathrate $K_8Zn_4Sn_{42}$ determined by inelastic X-ray scattering
B. M. Leu, M. I. Sturza, J. W. Hong, A. Alatas, V. Baran, T. F. Fässler
EPL 113 (2016), 16001 (DOI: 10.1209/0295-5075/113/16001)



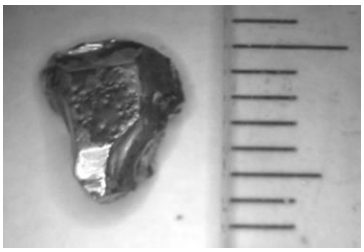
Zintl Clusters as Wet-Chemical Precursors for Germanium Nanomorphologies with Tunable Composition
M. M. Bentlohner, M. Waibel, P. Zeller, K. Sarkar, P. Müller-Buschbaum, D. Fattakhova-Rohlfing, T. F. Fässler
Angew. Chem. 128 (2016), 2487–2491 (DOI: 10.1002/ange.201508246)
Angew. Chem. Int. Ed. 55 (2016), 2441–2445 (DOI: 10.1002/anie.201508246)



Si-based Clathrates with Partial Substitution by Zn and Ga: $K_8Zn_{3.5}Si_{42.5}$, $Rb_{7.9}Zn_{3.6}Si_{42.4}$, and $Cs_{8-x}Ga_{8-y}Si_{38+y}$
V. Baran, T. F. Fässler
Z. Anorg. Allg. Chem. 641 (2015), 1435–1443 (DOI: 10.1002/zaac.201500147)



Semiconducting Clathrates Meet Gas Hydrates: $Xe_{24}[Sn_{136}]$
A. J. Karttunen, T. F. Fässler
Chem. Eur. J. 20 (2014), 6693–6698 (DOI: 10.1002/chem.201402251)



Synthesis of Large Single Crystals and Thermoelectrical Properties of the Type-I Clathrate $K_8Zn_4Sn_{42}$
V. Baran, A. Fischer, W. Scherer, T. F. Fässler
Z. Anorg. Allg. Chem. 639 (2013), 2125–2128 (DOI: 10.1002/zaac.201300383)