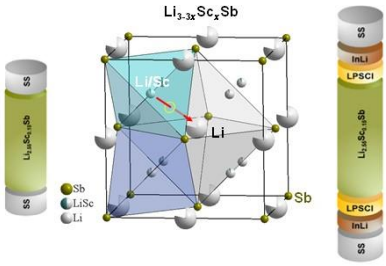
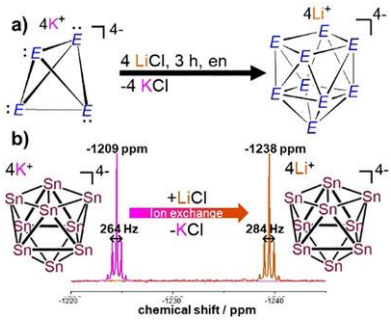
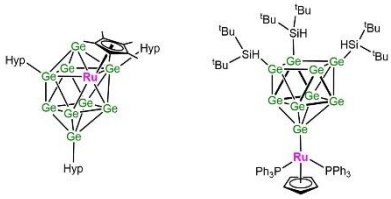
Publikationsliste Prof. T. F. Fässler (2019-2025)



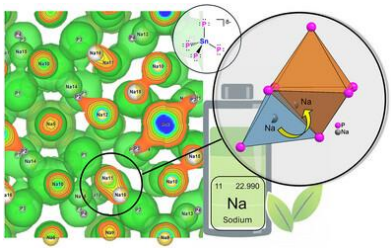
Scandium Induced Structural Disorder and Vacancy Engineering in Li3Sb – Superior Ionic Conductivity in $Li_{3-3x}Sc_xSb$
J. Jiang, T. Kutsch, W. Klein, M. Botta, A. Senyshyn, R. J. Spranger, V. Baran, L. van Wüllen, H. A. Gasteiger, T. F. Fässler
Adv. Energy Mater. (2025) 2500683.
DOI: 10.1002/aenm.202500683



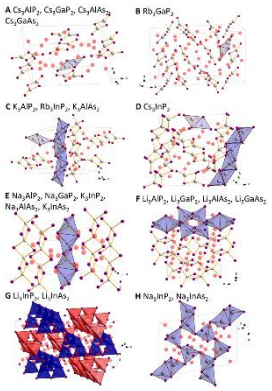
The Role of Lithium Ions on the Solubility of K_4E_4 in Ethylenediamine and the Oxidation of the Zintl Anions $[E_4]^{4-}$(E= Ge, Sn, Pb) as well as $[Ge_9]^{4-}$
C. E. Fajman, D. M. Dankert, W. Klein, T. F. Fässler
Chem. Eur. J. (2025): e202500592.
DOI: 10.1002/chem.202500592



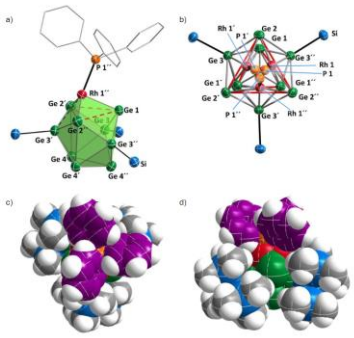
Ruthenium Decorated Tris-Silylated Germanium Zintl Clusters Featuring an Unexpected Ligand Arrangement
N. S. Willeit, V. Hlukhyy, T. F. Fässler
Molecules 2025, 30(6), 1247
DOI: 10.3390/molecules30061247



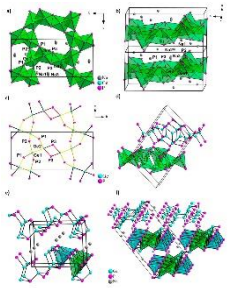
Fast Sodium Ion Conductivity in Pristine Na_8SnP_4: Synthesis, Structure and Properties of the Two Polymorphs LT-Na_8SnP_4 and HT-Na_8SnP_4
M. Botta, S. Merk, R. J. Spranger, A. Senyshyn, V. Baran, V. Dyadkin, L. van Wüllen, T. F. Fässler
Angew. Chem. (2025) e202419381
DOI: 10.1002/ange.202419381



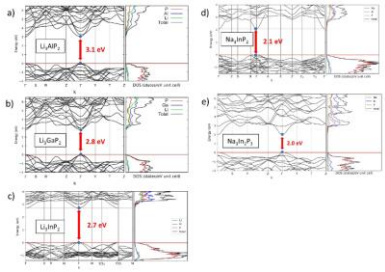
Large Number of Direct or Pseudo-Direct Band Gap Semiconductors among A3TrPn2 Compounds with A = *Li, Na, K, Rb, Cs;* Tr = *Al, Ga, In;* Pn = *P, As*
S. Zeitz, Y. Kuznetsova, T. F. Fässler
Molecules 2024, 29(17), 4087
DOI: 10.3390/molecules29174087



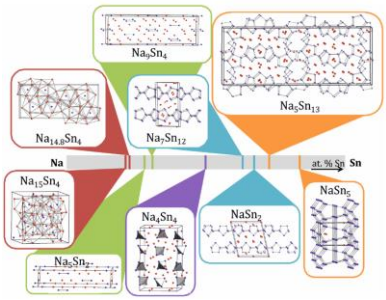
Synthesis, Structure and Catalytic Properties of $Hyp_3[Ge_9Rh]PPh_3$
N. S. Willeit, V. Hlukhyy, T. F. Fässler
Z. anorg. allg. Chem. (2024) e202400171
DOI: 10.1002/zaac.202400171



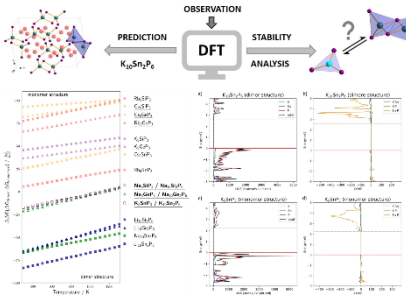
$Na_3Ge_2P_3$: A Zintl Phase Featuring $[P_3Ge{-}GeP_3]$ Dimers as Building Blocks
M. Botta, S. Zeitz, W. Klein, G. Raudaschl-Sieber, T. F. Fässler
Inorg. Chem. 63(2024), 43, 20108-20116
DOI: 10.1021/acs.inorgchem.4c00287



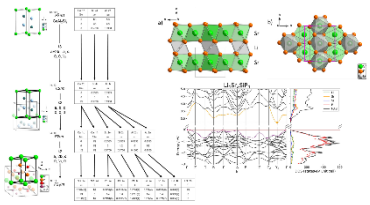
Direct Band Gap Semiconductors with Two- and Three-Dimensional Triel-Phosphide Frameworks (Triel=Al, Ga, In)
T. M. F. Restle, S. Zeitz, P. M. Stanley, A. J. Karttunen, J. Meyer, G. Raudaschl-Sieber, W. Klein, T. F. Fässler
Chem. Eur. J. 30(2024), e202304097
DOI: 10.1002/chem.202304097



Open Sn Framework Structure Hosting Bi Guest atoms – Synthesis, Crystal and Electronic Structure of $Na_{13}Sn_{26}Bi$
S. Zeitz, M. Boykoa, S. Ponou, V. Hlukhyy, T. F. Fässler
Chem. Eur. J. (2024) e202403592
DOI: 10.1002/chem.202403592

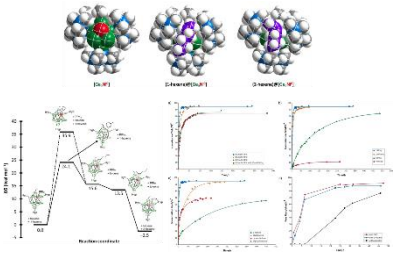


Electronic Structure Analysis of the $A_{10}Tt_2P_6$ System (A = Li - Cs; Tt = Si, Ge, Sn) and Synthesis of the Direct Band Gap Semiconductor $K_{10}Sn_2P_6$
S. Zeitz, H. Antoniuka, V. Hlukhyy, T.F. Fässler
Chem. Eur. J. 30 (2024) e202400002
DOI:10.1002/chem.202400002

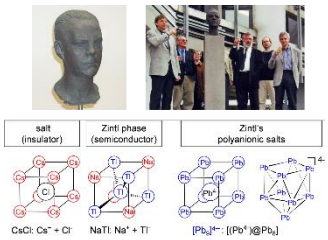


Synthesis, Crystal structure, electronic structure, and Raman spectra of $Li_4Sr_2SiP_4$
V. Daiber, S. Zeitz, V. Hlukhyy, D. Dankert, T. F. Fässler
Z. Anorg. Allg. Chem. (2024) e202300244
DOI: 10.1002/zaac.202300244

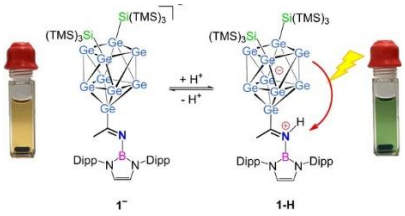
Dendritic Copper Current Collectors as a Capacity Boosting Material for Polymer-Templated Si/Ge/C Anodes in Li-Ion Batteries
C. L. Weindl, C. E. Fajman, Z. Xu, T. Zheng, G. E. Möhl, Na. Chaulagain, K. Shankar, R. Gilles T. F. Fässler, P. Müller-Buschbaum
ACS Appl. Mater. Interfaces 16 **(**2024**)** 2309−2318
DOI: 10.1021/acsami.3c15735



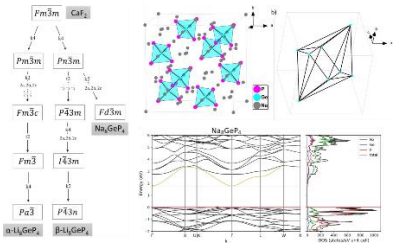
Functionalised $NiGe_9$ clusters as homogeneous single site catalysts
N. S. Willeit, W. Klein, P. Coburger, E. Fritz-Langhals, T. F. Fässler
ChemCatChem (2023) e202301200
DOI: 10.1002/cctc.202301200



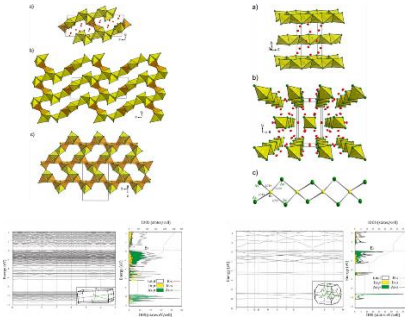
125 Years Eduard Zintl
T.F. Fässler
Z. Anorg.Allg.Chem. (2023) e202300227
DOI: 10.1002/zaac.202300227



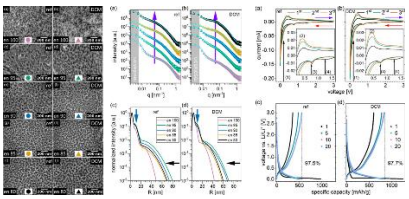
Probing Charge-Transfer Processes in a Covalently Linked [Ge9]-Cluster Imine Dyad
C. Wallach, Y. Selic, F. S. Geitner, A. Kumar, E. Thyrhaug, J. Hauer, A. J. Karttunen, T. F. Fässler
Angew. Chem. Int. Ed. (2023) e202304088
(DOI: doi.org/10.1002/anie.202304088)



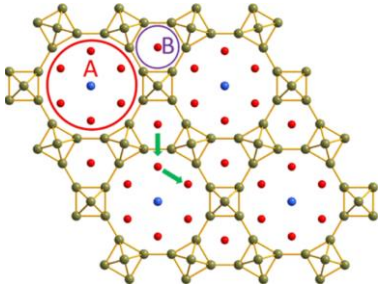
Synthesis, Structure and Physical Properties of the Sodium-Rich Phosphidogermanate Na8GeP4
M. Botta, S. Zeitz, T. F. Fässler
Z. Anorg.Allg.Chem. 649 (2023) e202300166.
(DOI: doi.org/10.1002/zaac.202300166)



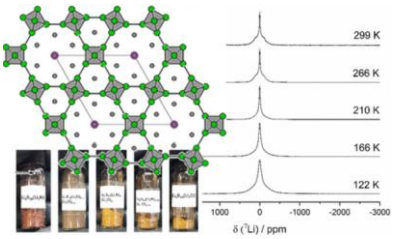
K7In4As6 and K3InAs2 - Two more Zintl phases showing the rich variety of In-As polyanion structures
M. Boyko, V. Hlukhyy, T. F. Fässler
Z. Anorg.Allg.Chem. (2023) e202300164
(DOI: doi.org/10.1002/zaac.202300164)



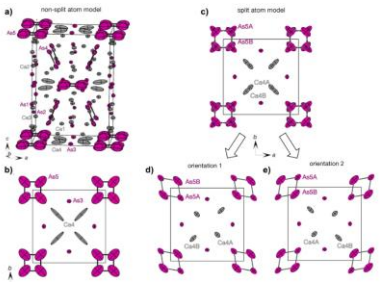
Toluene-mediated morphology tuning of diblock copolymer templated porous Si/Ge/C thin films for Li-ion batteries
C. L. Weindl, K. Wu, C. E. Fajman, Z. Xu, T. Zheng, T. Tian, C. Harder, B. Sochor, S. V. Roth, T. F. Fässler, P. Müller-Buschbaum
Adv. Energy Sustainability Res. 4 (2023) 2300096
(DOI: doi.org/10.1002/aesr.202300096)



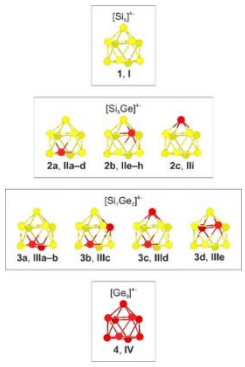
The mechanism of Li ion migration in the superionic conducting open framework structure $Li_6B_{18}(Li_3N)_{1-x}(Li_2O)_x$ ($0 \leq x \leq 1$).
R. J. Spranger, H. Kirchhain, T. M. F. Restle, J. V. Dums, A. J., Karttunen, L. van Wüllen, T. F. Fässler
Phys. Chem. C 127 (2023) 1622−1632
(DOI: doi.org/10.1021/acs.jpcc.2c06839)



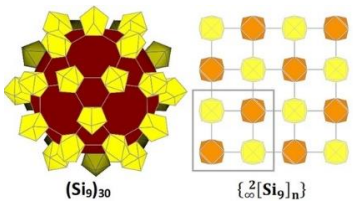
Lithium Ion Mobility in Li6B18(Li3N) and Li Vacancy Tuning in the Solid Solution $Li_6B_{18}(Li_3N)_{1-x}(Li_2O)_x$
T. M. F. Restle, L. Scherf, J. V. Dums, A. G. Mutschke, R. J. Spranger, H. Kirchhain, A. J. Karttunen, L. van Wüllen, T. F. Fässler
Angew. Chem. Int. Ed. 62 (2023) e202213962
(DOI: doi.org/10.1002/anie.202213962)



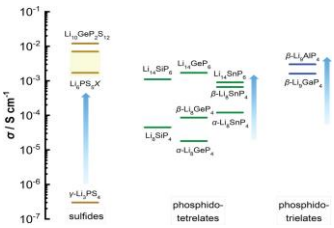
Crystal Stucture of Undecacalcium decaarsenide, $Ca_{11}As_{10}$.
A. V. Hoffmann, T. F. Fässler, V. Hlukhyy
Z. Kristallogr. - N. Cryst. Struct. 238 (2023) 1–3.
(DOI: doi.org/10.1515/NCRS-2022-0380)



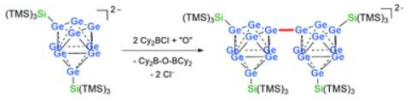
Structural characteristics of mixed nido-$[Si_{9-x}Ge_x]^{4-}$ (x = 1, 2) Zintl clusters in solution and within solvent crystals
L.-A. Jantke A. J. Karttunen, T. F. Fässler
Z. Anorg. Allg. Chem. 684 (2022) e202200276
(DOI: doi.org/10.1002/zaac.202200276)



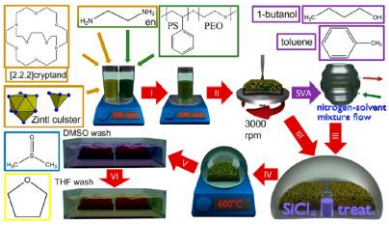
Chemi-Inspired Silicon Allotropes—Experimentally Accessible Si_9 Cages as Proposed Building Block for 1D Polymers, 2D Sheets, Single-Walled Nanotubes, and Nanoparticles
L.-A. Jantke, A. J. Karttunen, T. F. Fässler
Molecules 27 (2022) 822. (DOI: doi.org/10.3390/molecules27030822)



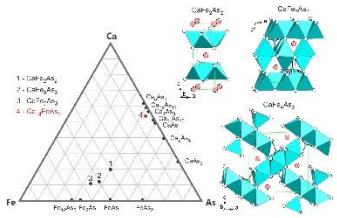
Super-Ionic Conductivity in ω Li_9TrP_4 (Tr = Al, Ga, In) and Lithium Diffusion Pathways in Li_9AlP_4 Polymorphs
T. M. F. Restle, S. Strangmüller, V. Baran, A. Senyshyn, H. Kirchhain, W. Klein, S. Merk, D. Müller, T. Kutsch, L. van Wüllen, T. F. Fässler
Adv. Funct. Mat. 32 (2022) 2112377. (DOI: doi.org/10.1002/adfm.202112377)



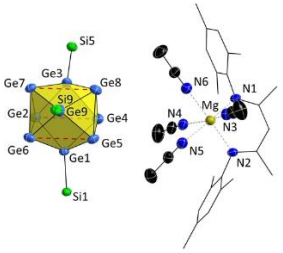
Oxidative Coupling of Silylated Nonagermanide Clusters
C. Wallach, W. Klein, T. F. Fässler
Chem. Commun. 58 (2022) 5486–5489 (DOI: doi.org/10.1039/d2cc01250b)



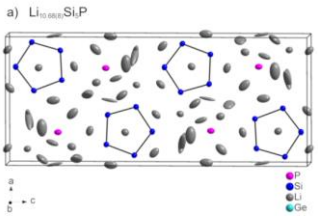
Effect of Solvent Vapor Annealing on Diblock Copolymer-Templated Mesoporous Si/Ge/C Thin Films: Implications for Li-Ion Batteries
C. L. Weindl, C. E. Fajman, M. A. Giebel, K. S. Wienhold, S. Yin, T. Tian, C. Geiger, L. P. Kreuzer, M. Schwartzkopf, S. V. Roth, T. F. Fässler, P. Müller-Buschbaum
ACS Appl. Nano Mater. 5 (2022) 7278−7287
(DOI: doi.org/10.1021/acsanm.2c01191)



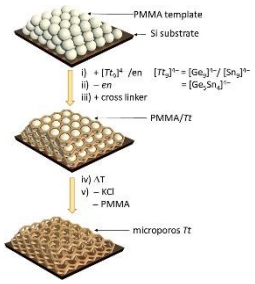
$Ca_{14}FeAs_{11}$ – A structure comprising structural motifs of iron-based superconductors and Ca-As Zintl phases
A. V. Hoffmann, T. F. Fässler, V. Hlukhyy
Z. Anorg. Allg. Chem. 648 (2022) (DOI: doi.org/10.1002/zaac.202200168)



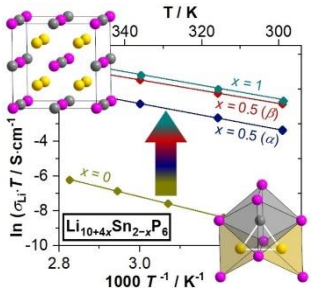
Nonagermanide Zintl Clusters with Mg2+ Counter Ions
C. Wallach, W. Klein, T. F. Fässler
Z. Anorg. Allg. Chem. 648 (2022) (DOI: doi.org/10.1002/zaac.202200065)



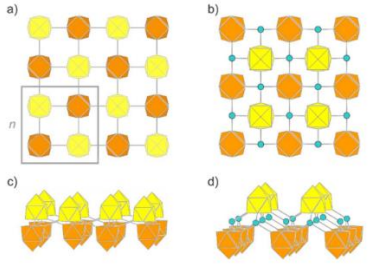
Planar Si_5 and Ge_5 Pentagons beside Isolated Phosphide Anions in Lithium Phosphide Tetrelides $Li_{10+x}Si_5P$ and $Li_{10+x}Ge_5P$
H. Eickhoff, W. Klein, L. Toffoletti, G. Raudaschl-Sieber, T. F. Fässler
Z. Anorg. Allg. Chem. 2022 (DOI: doi.org/10.1002/zaac.202100376)



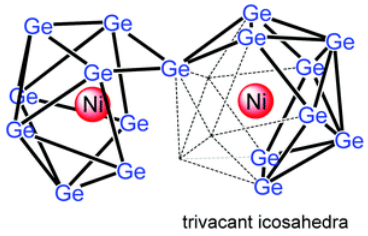
Inverse Opal-Structured Sn and Sn/Ge Films from Soluble Zintl Clusters as Precursors
S. Geier, T. Kratky, S. Günther, T. F. Fässler
Z. Anorg. Allg. Chem. 2022 (DOI: doi.org/10.1002/zaac.202100362)



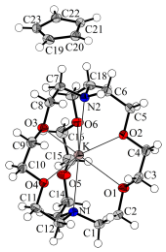
Li_5SnP_3 — a member of the series $Li_{10+4x}Sn_{2-x}P_6$ for x = 0 comprising the fast lithium-ion conductors Li_8SnP_4 (x = 0.5) and $Li_{14}SnP_6$ (x = 1)
S. Strangmüller, D. Müller, G. Raudaschl-Sieber, H. Kirchhain, L. van Wüllen, T. F. Fässler
Chem. Eur. J. 2022 (DOI: 10.1002/chem.202104219)



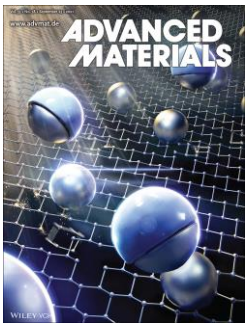
Chemi-inspired silicon allotropes – experimentally accessible Si_9 cages as proposed building block for 1D polymers, 2D sheets, single-walled nanotubes, and nanoparticles
L.-A. Jantke, A. J. Karttunen, T. F. Fässler
Molecules 2021 (DOI: 10.3390/molecules27030822)



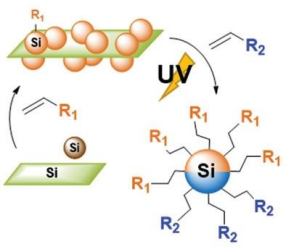
Filled Trivacant Icosahedra as Building Fragments in 17-atomic Endohedral Germanides $[TM_2@Ge_{17}]^{n-}$ (TM = Co, Ni)
C. Wallach, Y. Selic, B. J. L. Witzel, W. Klein, T. F. Fässler
Dalton Trans. 50 (2021)13671–13675 (DOI: 10.1039/d1dt03078g)



Crystal structure of (4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane-) potassium cyclopentadienide, [K([2.2.2]crypt)]Cp, $C_{23}H_{41}KN_2O_6$
C. Fischer, W. Klein, T. F. Fässler
Z. Cryst. C, (2021), online (DOI: 10.1515/ncrs-2021-0296)



Inside Front Cover: Surface-Anisotropic Janus Silicon Quantum Dots via Masking on 2D Silicon Nanosheets
M. J. Kloberg, H. Yu, E. Groß, F. Eckmann, T. M. F. Restle, T. F. Fässler, J. G. C. Veinot, B. Rieger
Adv. Mater. 33 (2021), 2170296 (DOI: 10.1002/adma.202170296)



Surface-Anisotropic Janus Silicon Quantum Dots via Masking on 2D Silicon Nanosheets
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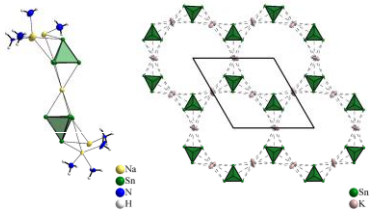
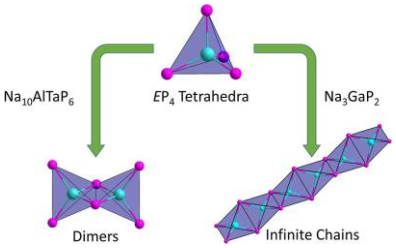
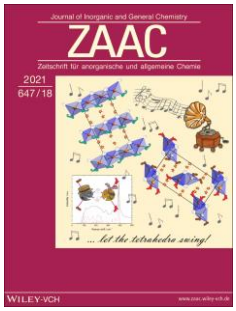
Adv. Mater. 33 (2021), 210028 (DOI: 10.1002/adma.202100288)



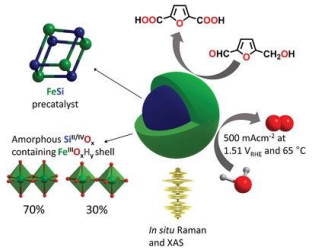
Investigations on the Solubility of Sn_4-Cluster Compounds in Liquid Ammonia
W. Klein, C. B. Benda, T. Henneberger, B. J. L. Witzel, T. F. Fässler
Anorg. Allg. Chem. 647 (2021), online (DOI: 10.1002/zaac.202100239)



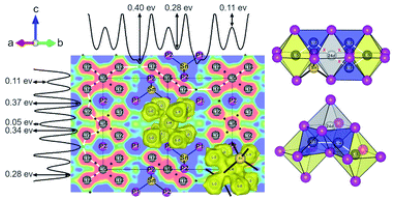
Aliovalent substitution in phosphide-based materials - Crystal structures of $Na_{10}AlTaP_6$ and Na_3GaP_2 featuring edge-sharing EP_4 tetrahedra (E = Al/Ta and Ga)
T. M. F. Restle, S. Zeitz, J. Meyer, W. Klein, G. Raudaschl-Sieber, A. J. Karttunen, T. F. Fässler
Anorg. Allg. Chem. 647 (2021), online (DOI: 10.1002/zaac.202100149)



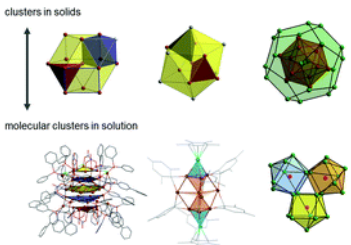
Front Cover
Dedicated to the 80th birthday of Prof. Schnöckel
Anorg. Allg. Chem. 647 (2021), online (DOI: 10.1002/zaac.202100269)



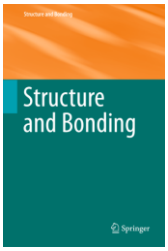
Evolving Highly Active Oxidic Iron(III) Phase from Corrosion of Intermetallic Iron Silicide to Master Efficient Electrocatalytic Water Oxidation and Selective Oxygenation of 5-Hydroxymethylfurfural
J. N. Hausmann, R. Beltrán-Suito, S. Mebs, V. Hlukhyy, T. F. Fässler, H. Dau, M. Driess, P. W. Menezes
Adv. Mater. 33 (2021) 2008823 (DOI: 10.1002/adma.202008823)



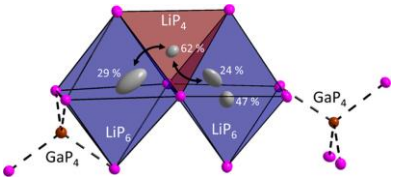
Synthesis, Structure and Diffusion Pathways of Fast Lithium-Ion Conductors in the Polymorphs α- and β-Li_8SnP_4
S. Strangmüller, H. Eickhoff, W. Klein, G. Raudaschl-Sieber, H. Kirchhain, T. Kutsch, V. Baran, A. Senyshyn, L. van Wüllen, H. A. Gasteiger, T. F. Fässler
J. Mat. Chem. A, 9 (2021), 15254–15268 (DOI: 10.1039/D1TA03021C)



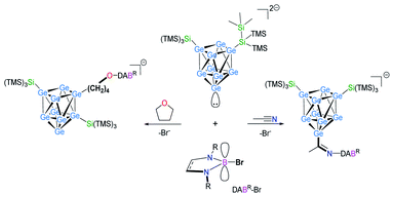
Intermetallic phases meet intermetalloid clusters
M. Schütz, C. Gemel, W. Klein, R. A. Fischer, T. F. Fässler
Chem. Soc. Rev. 50 (2021), 8496–8510 (DOI: 10.1039/D1CS00286D)



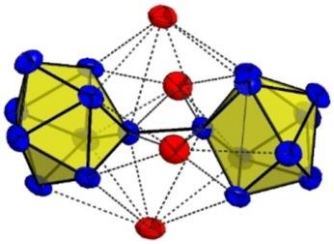
Molecules Meet Solids: From Wade-Mingos Clusters to Intermetalloid Clusters
W. Klein, A. Schier, T. F. Fässler
In: *Structure and Bonding.* Springer, Berlin, Heidelberg (2021)
(DOI: 10.1007/430_2021_82)



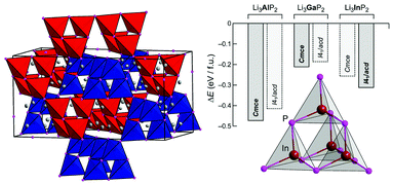
Fast Lithium Ion Conduction in Li_9GaP_4
T. M. F. Restle, C. Sedlmeier, H. Kirchhain, W. Klein, G. Raudaschl-Sieber, L. van Wüllen, T. F. Fässler
Chem. Mater. 33 (2021), 2957−2966 (DOI: 10.1021/acs.chemmater.1c00504)



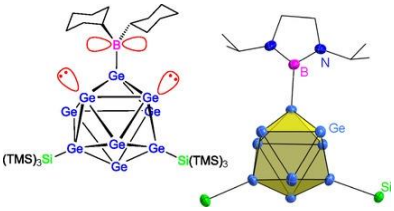
FLP-type Nitrile Activation and Cyclic Ether Ring Opening by Halo-Borane Nonagermanide Cluster Lewis Acid-Base-Pairs
C. Wallach, F. S. Geitner, T. F. Fässler
Chem.Sci., 12 (2021) 6969–6976 (DOI: 10.1039/D1SC00811K)



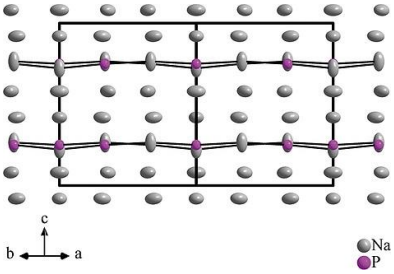
On the Oxidation of $[Ge_9]^{4-}$ – Crystal Structures and Raman Spectroscopic Investigation of Linked Ge_9 Clusters
K. Mayer, W. Klein, S. Geier, T. F. Fässler
Z. Anorg. Allg. Chem. 647 (2021), 377–384 (DOI: 10.1002/zaac.202000411)



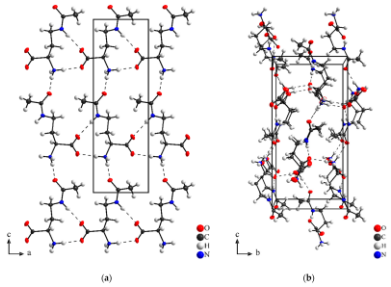
Supertetrahedral polyanionic network in the first lithium phosphidoindate Li_3InP_2 – structural similarity to Li_2SiP_2 and Li_2GeP_2 and dissimilarity to Li_3AlP_2 and Li_3GaP_2
T. M. F. Restle, V. L. Deringer, J. Meyer, G. Raudaschl-Sieber, T. F. Fässler
Chem. Sci. 12 (2021), 1278–1285 (DOI: 10.1039/D0SC05851C)



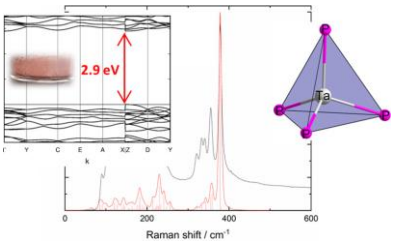
Boranyl-Functionalized [Ge$_9$] Clusters: Providing the Idea of Intramolecular Ge/B Frustrated Lewis Pairs
C. Wallach, F. S. Geitner, A. J. Karttunen, T. F. Fässler
Angew. Chem. Int. Ed. 60 (2020), 2648–2653 (DOI: 10.1002/anie.202012336)
Angew. Chem. 133 (2020), 2680–2685 (DOI: 10.1002/ange.202012336)



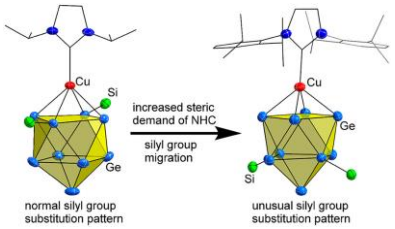
On the Crystal Structure and Conductivity of Na_3P
H. Eickhoff, C. Dietrich, W. Klein, W. G. Zeier, T. F. Fässler
Z. Anorg. Allg. Chem. 647 (2020), 28–33 (DOI: 10.1002/zaac.202000308)



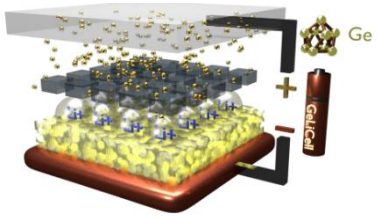
Crystal Structure and Spectroscopic Analysis of the Compatible Solute Nγ-Acetyl-L-2,4-Diaminobutyric Acid
L. Martin, W. Klein, S. P. Schwaminger, T. F. Fässler, S. Berensmeier
Crytals 10 (2020), 1136 (DOI: 10.3390/cryst10121136)



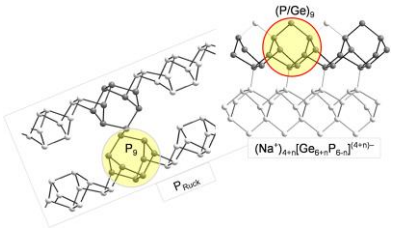
Na_7TaP_4: A Ternary Sodium Phosphidotantalate Containing $[TaP_4]^{7-}$ Tetrahedra
T. M. F. Restle, J. V. Dums, G. Raudaschl-Sieber, W. Klein, T. F. Fässler
Inorg. Chem. 59 (2020), 18420 – 18426 (DOI: 10.1021/acs.inorgchem.0c03021)



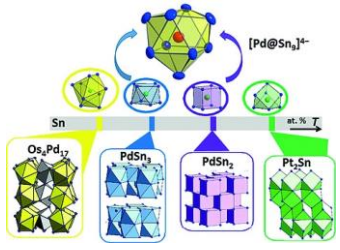
Cluster Expansion versus Complex Formation: Coinage Metal Coordination to Silylated $[Ge_9]$ Cages
F. S. Geitner, T. F. Fässler
Inorg. Chem. 59 (2020), 15218–15227 (DOI: 10.1021/acs.inorgchem.0c02190)



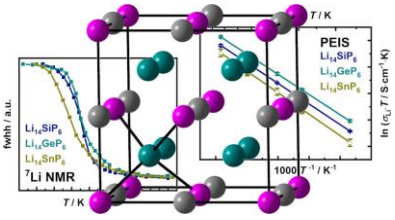
Mesoporous GeOx/Ge/C as Highly Reversible Anode Material with High Specific Capacity for Lithium Ion Batteries
N. Hohn, X. Wang, M. A. Giebel, S. Yin, D. Müller, A. Hetzenecker, L. Bießmann, L. P. Kreuzer, G. E. Moehl, H. Yu, J. G. C. Veinot, T. F. Fässler, Y.-J. Cheng, P. Müller-Buschbaum
ACS Appl. Mater. Interfaces 12 (2020), 47002–47009
(DOI: 10.1021/acsami.0c13560)



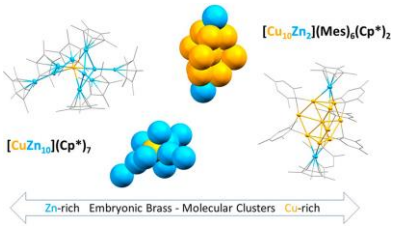
$Na_2Ge_3P_3$ and $Na_5Ge_7P_5$ Comprising Heteroatomic Polyanions Mimicking the Structure of Fibrous Red Phosphorus
H. Eickhoff, V. Hlukhyy, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 1834–1838 (DOI: 10.1002/zaac.202000316)



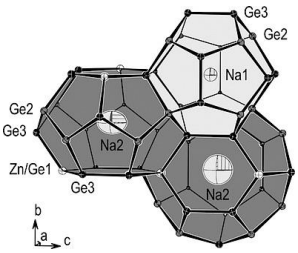
Extracting $[Pd@Sn_9]^{4-}$ and $[Rh@Pb_9]^{4-}$ Clusters from their Binary Alloys Using "Metal Scissors"
M. Boyko, V. Hlukhyy, H. Jin, J. V. Dums, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 1575–158 (DOI: 10.1002/zaac.202000061)



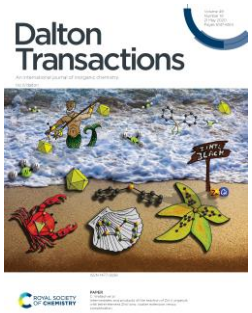
Modifying the Properties of Fast Lithium-Ion Conductors—The Lithium Phosphidotetrelates $Li_{14}SiP_6$, $Li_{14}GeP_6$, and $Li_{14}SnP_6$
S. Strangmüller, H. Eickhoff, G. Raudaschl-Sieber, H. Kirchhain, C. Sedlmeier, L. van Wüllen, H. A. Gasteiger, T. F. Fässler
Chem. Mater. 32 (2020), 6925–6934 (DOI: 10.1021/acs.chemmater.0c02052)



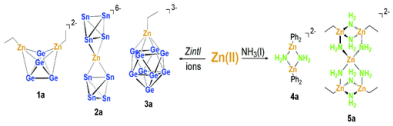
Contrasting Structure and Bonding of a Copper-Rich and a Zinc-Rich Intermetalloid Cu/Zn Cluster
M. Schütz, M. Muhr, K. Freitag, C. Gemel, S. Kahlal, J.-Y. Saillard, A. C. H. Da Silva, J. L. F. Da Silva, T. F. Fässler, R. A. Fischer
Inorg. Chem. 59 (2020), 9077–9085 (DOI: 10.1021/acs.inorgchem.0c00943)



The Intermetallic Type-I Clathrate Na8Zn4Ge42
S. Stegmaier, V. Hlukhyy, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 1073–1078 (DOI: 10.1002/zaac.201900253)



Inside front cover: Intermediates and Products of the Reaction of Zn(II) Organyls with Tetrel Element Zintl Ions: Cluster Extension versus Complexation
C. Wallach, K. Mayer, T. Henneberger, W. Klein, T. F. Fässler
Dalt. Trans. 49 (2020), 6148–6148 (DOI: 10.1039/D0DT90093A)



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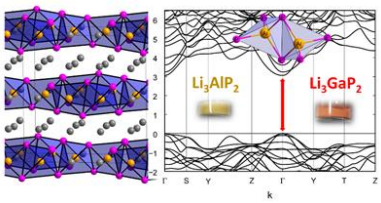
Dalt. Trans. 49 (2020), 6191–6198 (DOI: 10.1039/D0DT01096K)

Cover Picture: Synthesis, Structure, Solid State NMR Spectroscopy, and Electronic Structures of the Phosphidotrielates Li_3AlP_2 and Li_3GaP_2
T. M. F. Restle, J. V. Dums, G. Raudaschl-Sieber, T. F. Fässler
Chem. Eur. J. 26 (2020), 6737–6737 (DOI: 10.1002/chem.202001592)



Synthesis, Structure, Solid State NMR Spectroscopy, and Electronic Structures of the Phosphidotrielates Li_3AlP_2 and Li_3GaP_2
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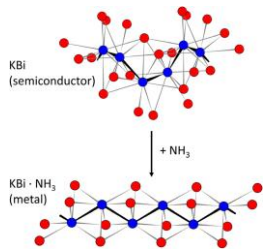
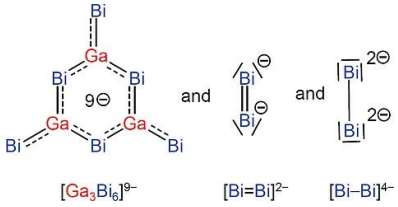
Chem. Eur. J. 26 (2020), 6812–6819 (DOI: 10.1002/chem.202000482)

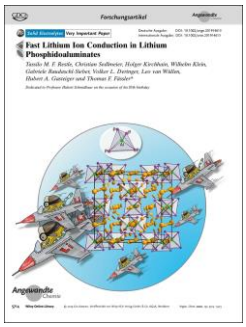


Lösemittel-induzierter Halbleiter-Metall-Übergang: Planare $_{\infty}^{1}[Bi^{1-}]$-Zickzack-Ketten im metallischen KBi·NH3 im Vergleich zu $_{\infty}^{1}[Bi^{1-}]$-Helices im halbleitenden KBi
K. Mayer, J. V. Dums, C. B. Benda, W. Klein, T. F. Fässler
Angew. Chem. 132 (2020), 6866–6871 (DOI: 10.1002/ange.201915735)

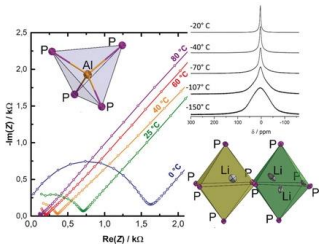
Solvate-Induced Metallization: Flat $_{\infty}^{1}[Bi^{1-}]$ Zigzag Chains in Metallic KBi · NH3 versus $_{\infty}^{1}[Bi^{1-}]$ Helices in Semiconducting KBi
Angew. Chem. Int. Ed. 59 (2020), 6800–6805 (DOI: 10.1002/anie.201915735)



$K_{10}Ga_3Bi_{6.65}$ – The First Compound in the Ternary A-Ga-Bi System Comprising Cyclic Tris-meta Borate-Analogous $[Ga_3Bi_6]^{9-}$ Units and Bi_2 Dumbbells
M. Boyko, V. Hlukhyy, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 659–664 (DOI: 10.1002/zaac.201900292)



Frontispiz: Fast Lithium Ion Conduction in Lithium Phosphidoaluminates
T. M. F. Restle, C. Sedlmeier, H. Kirchhain, W. Klein, G. Raudaschl-Sieber, V. L. Deringer, L. van Wüllen, H. A. Gasteiger, T. F. Fässler
Angew. Chem. Int. Ed. 59 (2020), 5665 (DOI: 10.1002/anie.202081462)
Angew. Chem. 132 (2020), 5714 (DOI: 10.1002/ange.202081462)



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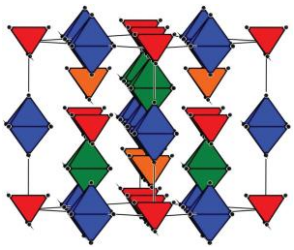
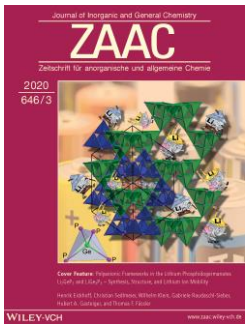
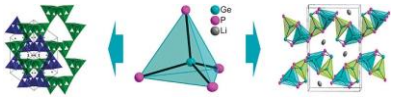
Angew. Chem. Int. Ed. 59 (2019), 5665–5674 (DOI: 10.1002/anie.201914613)
Angew. Chem. 132 (2019), 5714–5723 (DOI: 10.1002/ange.201914613)



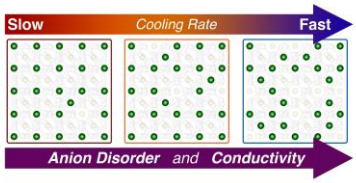
Li vs. Zn substitution in $Li_{17}Si_4$ – $Li_{17-\varepsilon-\delta}Zn_{\varepsilon}Si_4$ connecting the structures of $Li_{21}Si_5$ and $Li_{17}Si_4$
V. Baran, T. F. Fässler
Z. Naturforsch. B 75 (2020), 91–96 (DOI: 10.1515/znb-2019-0157)



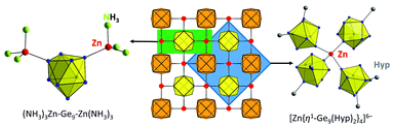
Cover Feature: Polyanionic Frameworks in the Lithium Phosphidogermanates Li_2GeP_2 and $LiGe_3P_3$ – Synthesis, Structure, and Lithium Ion Mobility (Z. Anorg. Allg. Chem. 3/2020)
H. Eickhoff, C. Sedlmeier, W. Klein, G. Raudaschl-Sieber, H. A. Gasteiger, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 79 (DOI: 10.1002/zaac.202070033)



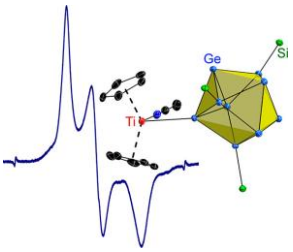
Polyanionic Frameworks in the Lithium Phosphidogermanates Li_2GeP_2 and $LiGe_3P_3$ – Synthesis, Structure, and Lithium Ion Mobility
H. Eickhoff, C. Sedlmeier, W. Klein, G. Raudaschl-Sieber, H. A. Gasteiger, T. F. Fässler
Z. Anorg. Allg. Chem. 646 (2020), 95–102 (DOI: 10.1002/zaac.201900228)



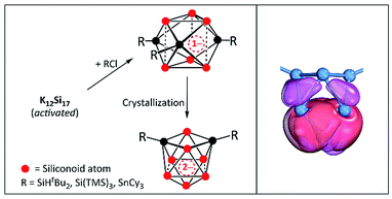
Rapid crystallization and Kinetic Freezing of Site-Disorder in the Lithium Superionic Argyrodite Li_6PS_5Br
A. Gautam, M. Sadowski, N. Prinz, H. Eickhoff, N. Minafra, M. Ghidiu, S. P. Culver, K. Albe, T. F. Fässler, M. Zobel, W. G. Zeier
Chem. Mater. 31 (2019), 10178–10185 (DOI: 10.1021/acs.chemmater.9b03852)



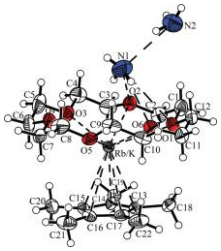
Zinc as a Versatile Connecting Atom for Zintl Cluster Oligomers
K. Mayer, W. Klein, T. F. Fässler
Chem. Commun. 55 (2019), 12156–12159 (DOI: 10.1039/C9CC06388A)



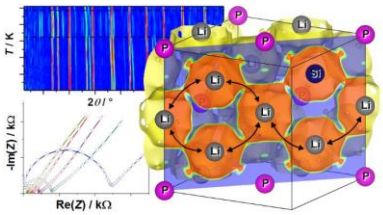
Early-Transition-Metal Complexes of Functionalized Nonagermanide Clusters: Synthesis and Characterization of $[Cp_2(MeCN)Ti(\eta^1\text{-}Ge_9\{Si(TMS)_3\}_3)]$ and $K_3[Cp_2Ti(\eta^1\text{-}Ge_9\{Si(TMS)_3\}_2)_2]$
F. S. Geitner, W. Klein, O. Storcheva, T. D. Tilley, T. F. Fässler
Inorg. Chem. 58 (2019), 13293–13298 (DOI: 10.1021/acs.inorgchem.9b02158)



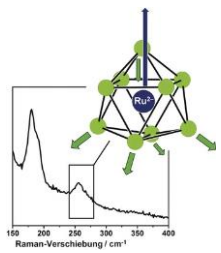
Silicon clusters with six and seven unsubstituted vertices via a two-step reaction from elemental silicon
L. J. Schiegerl, A. J. Karttunen, W. Klein, T. F. Fässler
Chem. Sci. 10 (2019), 9130–9139 (DOI: 10.1039/C9SC03324F)



Crystal structure of (1,4,7,10,13,16-hexaoxacyclooctadecane-κ^6O_6) 1,2,3,4,5-pentamethyl-cyclopenta-2,4-dien-1-yl(potassium, rubidium) — ammonia (1/2), $[K_{0.3}Rb_{0.7}(18\text{-crown-}6)]Cp^*\cdot 2\ NH_3$, $C_{22}H_{45}K_{0.3}N_2O_6Rb_{0.7}$
T. Henneberger, W. Klein, T. F. Fässler
Z. Kristallogr. – New Cryst. Struct. 234 (2019), 1241–1243 (DOI: 10.1515/ncrs-2019-0368)

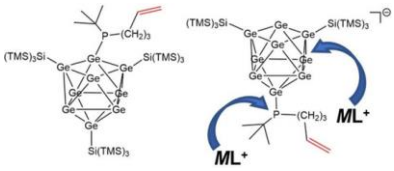


Fast Ionic Conductivity in the Most Lithium-Rich Phosphidosilicate $Li_{14}SiP_6$
S. Strangmüller, H. Eickhoff, D. Müller, W. Klein, G. Raudaschl-Sieber, H. Kirchhain, C. Sedlmeier, V. Baran, A. Senyshyn, V. L. Deringer, L. van Wüllen, H. A. Gasteiger, T. F. Fässler
J. Am. Chem. Soc. 141 (2019), 14200–14209 (DOI: 10.1021/jacs.9b05301)

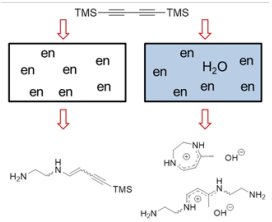


Metallo-Käfige für Metall-Anionen: Hochgeladene $[Co@Ge_9]^{5-}$- und $[Ru@Sn_9]^{6-}$-Cluster mit sphärisch eingelagerten Co^-- und Ru^{2-}-Anionen
B. J. L. Witzel, W. Klein, J. V. Dums, M. Boyko, T. F. Fässler
Angew. Chem. 131 (2019), 13040–13045 (DOI: 10.1002/ange.201907127)

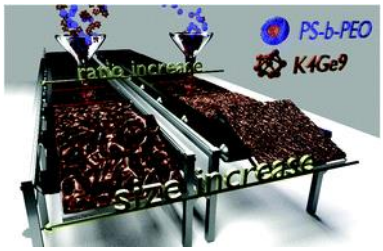
Metallocages for Metal Anions: Highly Charged $[Co@Ge_9]^{5-}$ and $[Ru@Sn_9]^{6-}$ Clusters Featuring Spherically Encapsulated Co^{1-} and Ru^{2-} Anions
Angew. Chem. Int. Ed. 58 (2019), 12908–12913 (DOI: 10.1002/anie.201907127)



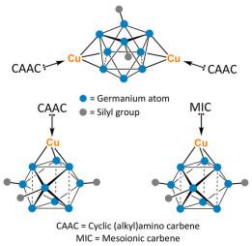
Enhancing the Variability of [Ge_9] Cluster Chemistry through Phosphine Functionalization
C. Wallach, F. S. Geitner, W. Klein, T. F. Fässler
Chem. Eur. J. 25 (2019), 12349–12356 (DOI: 10.1002/chem.201901673)



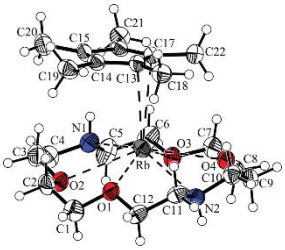
The Reaction of Ethylenediamine with 1,4-Bis(trimethylsilyl)butadiyne and the Role of Water: A Qualitative Method for the Determination of Water Impurities in Ethylenediamine
S. Frischhut, M. Bentlohner, T. F. Fässler
Eur. J. Org. Chem. 20 (2019), 3101–3104 (DOI: 10.1002/ejoc.201900200)



Amphiphilic diblock copolymer-mediated structure control in nanoporous germanium-based thin films
N. Hohn, A. E. Hetzenecker, M. A. Giebel, S. Geier, L. Bießmann, V. Körstgens, N. Saxena, J. Schlipf, W. Ohm, P. S. Deimel, F. Allegretti, J. V. Barth, S. V. Roth, T. F. Fässler, P. Müller-Buschbaum
Nanoscale 11 (2019), 2048–2055 (DOI: 10.1039/C8NR09427F)



Silylated Ge_9 Clusters as New Ligands for Cyclic (Alkyl)amino and Mesoionic Carbene Copper Complexes
L. J. Schiegerl, M. Melaimi, D. R. Tolentino, W. Klein, G. Bertrand, T. F. Fässler
Inorg. Chem. 58 (2019), 3256–2364 (DOI: 10.1021/acs.inorgchem.8b03338)



Crystal structure of [(1,2-η)-1,2,3,4,5-pentamethyl-cyclopenta-2,4-dien-1-yl] (1,4,10,13-tetraoxa-7,16-diazacyclooctadecane-κ^6N_2,O_4) rubidium (I), [Rb(diaza-18-crown-6)]Cp, $C_{22}H_{41}N_2O_4Rb$*
T. Henneberger, W. Klein, T. F. Fässler
Z. Kristallogr. – New Cryst. Struct. 234 (2019), 165–167
(DOI: 10.1515/ncrs-2018-0252)