Publications

Florian Kraus

Content

Articles in peer review journals

2001

1. F. Kraus, B. Haenig, A. Kispert,
   Cloning and expression analysis of the mouse T-box gene *Tbx18*,
   Mech. Dev. **2001,** *100,* 83-86, PDF

2. F. Kraus, B. Haenig, A. Kispert,
   Cloning and expression analysis of the mouse T-box gene *Tbx20*,
   Mech. Dev. **2001**, *100,* 87-91, PDF

2002

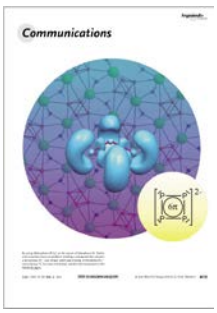
3. F. Kraus, J. Breu,
   Arene-arene stacking in the revised structure of 2,2'-bipyridinium hexafluorophosphate,
   Acta Crystallogr., Sect. C: Cryst. Struct. Commun. **2002,** *58,* o254-o256, PDF

4. B. Haenig, C. Schmidt, F. Kraus, M. Pfordt, A. Kispert,
   Cloning and expression analysis of the chick ortholog of TBX22, the gene mutated in X-linked cleft palate and ankyloglossia,
   Mech .Dev. **2002**, *117,* 321-325, PDF

5. J. Breu, W. Seidl, D. Huttner, F. Kraus,
   Nucleation-Controlled Crystallization of a New, Spontaneously Resolved Solvate of $[Ru(bpy)_3](PF_6)_2$ and its Desolvation Reaction,
   Chem. Eur. J. **2002**, *8,* 4454-4460, PDF

2003

6. F. Kraus, J. C. Aschenbrenner, N. Korber,
   P_4^{2-} - ein 6π-aromatisches Polyphosphid im Dicäsiumcyclotetraphosphid-Ammoniak(1/2),
   Angew. Chem. **2003**, *42,* 4162-4165, PDF,
   Angew. Chem. Int. Ed. **2003**, *42,* 4030-4033, PDF



2005

7. F. Kraus, B. Albert,
Synthesis and Crystal Structure of Cesium Hexamminesodium Decahydro-*closo*-decaborate-Ammonia(1/1), $Cs[Na(NH_3)_6][B_{10}H_{10}]\cdot NH_3$,
Z. Anorg. Allg. Chem. **2005**, *631*, 152-154, PDF

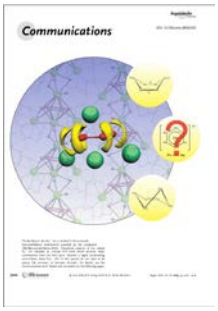
8. T. Hanauer, F. Kraus, N. Korber,
Synthesis and Crystal Structure of Tetraamminelithium-Rubidiumtriselenide $Li(NH_3)_4RbSe_3$, and Pentaamminesodium-Rubidiumtriselenide-Ammonia(1/3), $Na(NH_3)_5RbSe_3\cdot 3NH_3$,
Chem. Month. **2005**, *136*, 119-125, PDF

9. F. Kraus, N. Korber,
$K_2Li(NH_2)_3$ and $K_2Na(NH_2)_3$−synthesis and crystal structure of two crystal-chemically isotypic mixed amides,
J. Solid State Chem. **2005**, *178*, 1241-1246, PDF

10. F. Kraus, N. Korber,
Hydrogen Bonds in Potassium Amide-Ammonia(1/2), $KNH_2\cdot 2NH_3$,
Z. Anorg. Allg. Chem. **2005**, *631*, 1032-1034, PDF

11. F. Kraus, N. Korber,
The Chemical Bond in Polyphosphides: Crystal structures, the Electron Localization Function and a new view to aromaticity in P_4^{2-} and P_5^-,
Chem. Eur. J. **2005**, *11*, 5945-5959, PDF

12. F. Kraus, T. Hanauer, N. Korber,
Chemical bond in the cyclic anions P_6^{4-} and As_6^{4-}: Synthesis, crystal structure and the electron localization function of $(Rb(18crown6))_2Rb_2As_6\cdot 6NH_3$,
Angew. Chem. **2005**, *117*, 7366-7370, PDF,
Angew. Chem. Int. Ed. **2005**, *44*, 7200-7204, PDF



2006

13. F. Kraus, J. Schmedt auf der Günne, B. F. DiSalle, N. Korber,
No aromaticity of P_6^{4-} observed via solid state ^{31}P-NMR spectroscopy,
Chem. Commun. **2006**, *2*, 218-219, PDF

14. T. Hanauer, F. Kraus, M. Reil, N. Korber,
Isolated *cyclo*-Tetraarsendiide Anions: Synthesis and Crystal Structure of Bis(tetraamminelithium) tetraarsenide $[Li(NH_3)_4]_2As_4$, Bis(pentaamminesodium) tetraarsenide – ammonia (1/3) $[Na(NH_3)_5]_2As_4\cdot 3NH_3$ and Bis[(4,7,13,16,21,24-Hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane)(cesium, rubidium) tetraarsenide

– ammonia (1/2) [$Cs_{0.35}Rb_{0.65}$(*2,2,2-crypt*)]$_2As_4 \cdot 2NH_3$,
Chem. Month. **2006**, *137*, 147-156, PDF

15. F. Kraus, T. Hanauer, N. Korber,
Nature of the chemical bond in polypnictides: the lonepair aromatic anions P_4^{2-} and As_4^{2-},
Inorg.Chem. **2006**, *45*, 1117-1123, PDF

2007

16. P. Alvarez, F. García, J. P. Hehn, F. Kraus, G. T. Lawson, N. Korber, M. E. G. Mosquera, M. McPartlin, D. Moncrieff, C. M. Pask, A. D. Woods, D. S. Wright,
Reactions of $Sn(NMe_2)_2$ with MPHCy: The Effects of Alkali Metal Phosphide Coupling (Cy = Cyclohexyl; M = Li, Na, K, Rb),
Chem. Eur. J. **2007**, *13*, 1078-1089, PDF

17. A. Spiekermann, S. D. Hoffmann, F. Kraus, T. F. Fässler,
$[Au_3Ge_{18}]^{5-}$ - ein Gold-Germanium-Cluster mit bemerkenswerten Au-Au-Wechselwirkungen,
Angew. Chem. **2007**, *119*, 1663-1666, PDF, *Angew. Chem. Int. Ed.* **2007**, *46*, 1638-1640, PDF

2008

18. W. Meng, F. Kraus,
Crystal Structures of $Ag_2ZrF_6 \cdot 8NH_3$ and $Ag_2HfF_6 \cdot 8NH_3$ and Their Synthesis by the "Reactive Fluoride Route" in Liquid Ammonia,
Eur. J. Inorg. Chem. **2008**, 3068-3074, PDF

19. K. J. J. Mayerhofer, J. C. Meier, S. J. Ashton, G. K. H. Wiberg, F. Kraus, M. Hanzlik, M. Arenz,
Fuel cell catalyst degradation on the nanoscale,
Electrochem. Commun. **2008**, *10*, 1144-1147, PDF

2009

20. F. Kraus, S. A. Baer, M. B. Fichtl,
The Reactions of Silver, Zirconium, and Hafnium Fluorides with Liquid Ammonia: Synthesis and Crystal Structures of $Ag(NH_3)_2F \cdot 2NH_3$, $[M(NH_3)_4F_4] \cdot NH_3$ (M = Zr, Hf), and $(N_2H_7)F$,
Eur. J. Inorg. Chem. **2009**, 441-447, PDF

21. S.-J. Kim, F. Kraus, T. F. Fässler,
Na_6ZnSn_2, $Na_{4.24}K_{1.76(1)}ZnSn_2$, and $Na_{20}Zn_8Sn_{11}$: Three Intermetallic Structures Containing the Linear $\{Sn\text{-}Zn\text{-}Sn\}^{6-}$ Unit,
J. Am. Chem. Soc. **2009**, *131*, 1469-1478, PDF

22. F. Kraus, M. B. Fichtl, S. A. Baer,
Beryllium Diammine Difluoride $[BeF_2(NH_3)_2]$,
Z. Naturforsch. **2009**, *64b*, 257-262, PDF

23. F. Kraus, J. C. Aschenbrenner, T. Klamroth, N. Korber,
Hydrogen Polyphosphides $P_3H_2^{3-}$ and $P_3H_3^{2-}$: Synthesis and CrystalStructure of $K_3(P_3H_2)\cdot 2.3NH_3$, $Rb_3(P_3H_2)\cdot NH_3$, $[Rb(18\text{-crown-6})]_2(P_3H_3)\cdot 7.5NH_3$, and $[Cs(18\text{-crown-6})]_2(P_3H_3)\cdot 7NH_3$,
Inorg. Chem. **2009**, *48*, 1911-1919, PDF

24. F. Kraus, S. A. Baer,
UF_6 and UF_4 in liquid ammonia: $[UF_7(NH_3)]^{3-}$ and $[UF_4(NH_3)_4]$,
Chem. Eur. J. **2009**, *15*, 8269-8274, PDF

25. S. Joseph,C. Suchentrunk, F. Kraus, N. Korber,
Si_9^{4-} Anions in Solution – Structures of the Solvates $Rb_4Si_9\cdot 4.75NH_3$ and $[Rb(18\text{-crown-6})]Rb_3Si_9\cdot 4NH_3$, and Chemical Bonding in Si_9^{4-},
Eur. J. Inorg. Chem. **2009**, 4641-4647, PDF, Titelbild

2010

26. F. Kraus, S. A. Baer,
Higher Ammoniates of BF_3 and SiF_4: Syntheses, Crystal Structures and Theoretical Calculations,
Z. Anorg. Allgem. Chem. **2010,** *636*, 414-422, PDF

27. S. A. Baer, F. Kraus,
The First Ammoniates of Alkali Metal Fluorides: Cesium Fluoride Ammonia (3/4) $[Cs_3F_3(NH_3)_4]$ and Ammonium Cesium Difluoride $[NH_4CsF_2]$,
Z. Naturforsch. **2010**, *65b*, 1177-1184, PDF, Titelbild

28. M. Waibel, F. Kraus, S. Scharfe, B. Wahl, T. F. Fässler,
$[(MesCu)_2(\eta^3\text{-}Si_4)]^{4-}$: A Mesitylcopper-Stabilized Tetrasilicide Tetraanion,
Angew. Chem. **2010**, *122*, 6761-6765, PDF,
Angew. Chem. Int. Ed. **2010**, *49*, 6611-6615, PDF

2011

29. S. Scharfe, F. Kraus, S. Stegmaier, A. Schier, T. F. Fässler,
Zintl-Ionen, Käfigverbindungen und intermetalloide Cluster der Elemente der 14. und 15. Gruppe,
Angew. Chem. **2011**, *123*, 3712-3754, PDF,
Angew. Chem. Int. Ed. **2011**, *50*, 3630-3670, PDF

30. F. Kraus, S. A. Baer, A. J. Karttunen,
The Complex Amide $K_2[Zr(NH_2)_6]$,
Z. Anorg. Allg. Chem. **2011**, *637*, 1122-1130, PDF

31. J. Tong, F. Kraus, J. Köhler, A. Simon, J. Liu, M.-W. Whangbo,
Dimers of Ag^{2+} Ions – Synthesis and Characterization of the Quaternary Silver Fluoride $Ag_2ZnZr_2F_{14}$ with $[Ag_2F_7]^{3-}$ Units,
Z. Anorg. Allg. Chem. **2011**, *637*, 1118-1121, PDF

32. F. Kraus,
Caesium Tetrachlorido Aurate(III), $CsAuCl_4$,
Z. Naturforsch. **2011**, *66b*, 871-872, PDF

33. F. Kraus, S. A. Baer,
Tetraammine Tetrafluorido Cerium(IV) Ammonia (1/1), $[CeF_4(NH_3)_4]\cdot NH_3$,
Z. Naturforsch. **2011**, *66b*, 868-870, PDF

34. F. Kraus, S. A. Baer,
***mer*-Triammine Trifluorido Iron(III), *mer*-$[FeF_3(NH_3)_3]$**,
Z. Naturforsch. **2011**, *66b,* 865-867, PDF

35. M. B. Fichtl, L. M. Scherf, S. A. Baer, F. Kraus,
***μ*-Oxido-bis(pentammineisen(III))-tetrachlorid-Ammoniak(1/8) $[Fe_2(\mu\text{-}O)(NH_3)_{10}]Cl_4\cdot 8NH_3$**,
Z. Naturforsch. **2011**, *66b*, 784-792, PDF

2012

36. C. Huber, F. Kraus, M. Hanzlik, W. Eisenreich, G. Wächtershäuser,
Elements of Metabolic Evolution,
Chem. Eur. J. **2012**, *18*, 2063-2080, PDF

37. F. Kraus, S. A. Baer, M. R. Buchner, A. J. Karttunen,
Reactions of Beryllium Halides in Liquid Ammonia: The Tetraammine Beryllium Cation $[Be(NH_3)_4]^{2+}$, its Hydrolysis Products, and the Action of Be^{2+} as a Fluoride Ion Acceptor,
Chem. Eur. J. **2012**, *18*, 2131-2142, PDF

38. F. Kraus,
Otto Ruff and a Fluoride that changed the World in many Ways: UF_6,
Z. Anorg. Allg. Chem. **2012**, *638*, 707-709, PDF

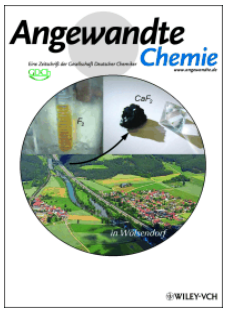
39. F. Kraus,
Dissolving the Insoluble: CdF_2 and moist Ammonia form Cadmium(II) Difluoride Monohydrate – Synthesis and Crystal Structure of $[Cd(NH_3)_6]F_2\cdot H_2O$,
Monatsh. Chem. **2012**, *8*, 1097-1100, PDF

40. M. R. Buchner, F. Kraus, H. Schmidbaur,
Pyrophosphate Complexation of Tin(II) in Aqueous Solutions as Applied in Electrolytes for the Deposition of Tin and Tin Alloys such as White Bronze,
Inorg. Chem. **2012**, *51*, 8860-8867, PDF

41. P. Woidy, A. J. Karttunen, F. Kraus,
Uranyl Halides from Liquid Ammonia: $[UO_2(NH_3)_5]Cl_2 \cdot NH_3$ and $[UO_2F_2(NH_3)_3]_2 \cdot 2NH_3$ and their Decomposition Products $[UO_2Cl_2(NH_3)_3]$ and $[UO_2F_2(NH_3)_3]$,
Z. Anorg. Allg. Chem. **2012**, *638*, 2044-2052, PDF

42. F. Kraus,
Fluorine Chemistry meets liquid Ammonia,
BioInorganic React. Mech. **2012**, 8(*1-2*), 29-39, PDF

43. J. Schmedt auf der Günne, M. Mangstl, F. Kraus,
Occurrence of Difluorine F_2 in Nature - *In Situ* Proof and Quantification,
Angew. Chem. **2012**, *124*, 7968-7971, PDF
Angew. Chem. Int. Ed. **2012**, *51*, 7847-7849, PDF
"Very Important Paper", Titelbild Link1, Link2



2013

44. L. M. Scherf, S. A. Baer, F. Kraus, S. M. Bawaked, H. Schmidbaur
Implications of the crystal structure of the ammonia solvate $[Au(NH_3)_2]Cl \cdot 4NH_3$,
Inorg. Chem. **2013**, *52*, 2157-2161, PDF

45. F. Kraus, M. Panda, T. Müller, B. Albert,
***Closo*-Hydroborates from liquid Ammonia: Synthesis and Crystal Structures of $[Li(NH_3)_4]_2[B_{12}H_{12}] \cdot 2NH_3$, $Rb_2[B_{12}H_{12}] \cdot 8NH_3$, $Cs_2[B_{12}H_{12}] \cdot 6NH_3$ and $Rb_2[B_{10}H_{10}] \cdot 5NH_3$.**
Inorg. Chem. **2013**, *52*, 4692-4699, PDF

46. F. Kraus, S. A. Baer, M. Hoelzel, A.J. Karttunen,
$[Be(ND_3)_4]Cl_2$: Synthesis, Characterization, and Space Group Determination guided by Solid-State Quantum Chemical Calculations,
Eur. J. Inorg. Chem. **2013**, 4184-4190, PDF

47. S. Ivlev, P. Woidy, F. Kraus, I. Gerin, R. Ostvald,
Tetrafluorobromates for Urban Mining of Noble Metals – A Case Study on Iridium Metal,
Eur. J. Inorg. Chem. **2013**, 4984-4987, PDF

48. D. Jantke, A. N. Marziale, T. Reiner, F. Kraus, E. Herdtweck, A. Raba, J. Eppinger,
Synthetic strategies for efficient conjugation of organometallic complexes with pendant protein reactive markers,
J. Organomet. Chem. **2013**, *744*, 82-91, DOI

49. E. Hinteregger, K. Wurst, L. Perfler, F. Kraus, H. Huppertz,
High-pressure Synthesis and Characterization of the Actinide

Borate-Phosphate $U_2[BO_4][PO_4]$,
Eur. J. Inorg. Chem. **2013**, 5247-5252, DOI

50. F. Kraus, H. Schmidbaur, S.W. Bawaked,
Tracing Hydrogen Bonding Au···H−C at Gold Atoms: A Case Study,
Inorg. Chem. **2013**, *52*, 9669-9674, DOI

51. S. Ivlev, P. Woidy, V. Sobolev, I. Gerin, R. Ostvald, F. Kraus,
On Tetrafluorobromates(III): Crystal Structures of the Dibromate $CsBr_2F_7$ and the Monobromate $CsBrF_4$,
Z. Anorg. Allg. Chem. **2013**, 639, 2846-2850, DOI

52. S. A. Baer, M. Lozinšek, F. Kraus,
Synthesis and Crystal Structure of Triammine Pentafluorido Tantalum(V) $[TaF_5(NH_3)_3]$,
Z. Anorg. Allg. Chem. **2013**, *639*, 2586-2588, DOI

53. E. Hinteregger, T. S. Hofer, G. Heymann, L. Perfler, F. Kraus, H. Huppertz,
High-pressure Synthesis and Characterization of the new Actinide Borates AnB_4O_8 (*An* = Th, U),
Chem. Eur. J. **2013**, *19*, 15985-15992, DOI

54. P. Woidy, F. Kraus,
The Diammine Silver(I) Acetate $[Ag(NH_3)_2]OAc$,
Z. Anorg. Allg. Chem. **2013**, *639*, 2643-2647, DOI

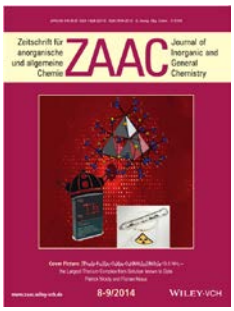
55. S. A. Baer, A. Pöthig, S. M. Bawaked, H. Schmidbaur, F. Kraus,
Bis(triphenylphosphine)gold(I) Perrhenate,
Z. Naturforsch. **2013**, *68b*, 1173-1179, DOI

56. H. Schmidbaur, M. A. Blumenthal, F. Kraus,
Synthesis of a Tri(gold)boride Complex $(Cy_3P)B[AuP(o\text{-}Tol)_3]_3$,
Z. Naturforsch. **2013**, *68b*, 1173-1179, DOI

2014

57. P. Woidy, W. Meng, F. Kraus,
The Hexaammine Copper(II) Fluoride Monohydrate $[Cu(NH_3)_6][F(H_2O)F]$: Synthesis and Crystal Structure,
Z. Naturforsch. **2014**, *69b*, 1-7, Link

58. A. J. Karttunen, F. Kraus,
Correspondence to “Fluorine in Shark Teeth: Its Direct Atomic-Resolution Imaging and Strenghthening Function”,
Angew. Chem. **2014**, *126*, 5606-5607, DOI
Angew. Chem. Int. Ed. **2014**, *53*, 5502-5503, DOI



59. P. Woidy, F. Kraus,
[$Th_{10}(\mu\text{-}F_{16})(\mu_3\text{-}O_4)(\mu_4\text{-}O_4)(NH_3)_{32}](NO_3)_8 \cdot 19.6\ NH_3$ – the largest Thorium Complex from Solution known to date,
Z. Anorg. Allg. Chem. **2014**, 640, 1547-1550, DOI

60. T. G. Müller, F. Karau, W. Schnick, F. Kraus,
A New Route to Metal Azides,
Angew. Chem. **2014**, *126*, 13913-13915, DOI
Angew. Chem. Int. Ed. **2014**, *53*, 13695-13697, DOI

61. F. Kraus,
Li_2PtF_6 revisited,
Acta Crystallogr., Sect. E: Struct. Rep. Online, **2014**, *E70*, i43, DOI

62. P. Woidy, F. Kraus,
Crystal Structure of $Cs_2[Th(NO_3)_6]$,
Acta Crystallogr., Sect. E: Struct. Rep. Online, **2014**, *E70*, 98-100, DOI

63. P. Woidy, A. J. Karttunen, T. G. Müller, F. Kraus,
The Unusual Coordination Sphere in the Octaammine Calcium(II) Ions of $[Ca(NH_3)_8]Br_2$ and $[Ca(NH_3)_8]I_2$ and the Thermal Decomposition of the Iodide to $[Ca(NH_3)_6]I_2$,
Z. Naturforsch. **2014**, *69b*, 1141-1148, Abstract

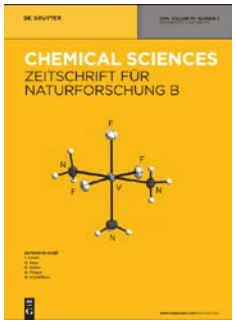
64. S. Ivlev, V. Sobolev, M. Hoelzel, A. J. Karttunen, T. Müller, I. Gerin, R. Ostvald, F. Kraus,
Synthesis and Characterization of Barium Tetrafluoridobromate(III) $Ba(BrF_4)_2$,
Eur. J. Inorg. Chem. **2014**, 6261-6267, DOI

2015

65. P. Woidy, A. J. Karttunen, M. Widenmeyer, R. Niewa, F. Kraus,
On Copper(I)-Fluorides, the Cuprophilic Interaction, the Preparation of Copper Nitride at Room Temperature and its Formation Mechanism at Elevated Temperatures,
Chem. Eur. J. **2015**, *21*, 3290-3303, DOI

66. S. S. Rudel, T. G. Müller, F. Kraus,
Na_2PtF_6, its Crystal Structure, Characterization, and Ammonolysis to $[Na(NH_3)_3]_2[PtF_6]$,
Z. Anorg. Allg.Chem. **2015**, *641*, 298-303, DOI

67. P. Woidy, F. Kraus,
mer-Triammine Trifluorido Vanadium(III), _mer_-[$VF_3(NH_3)_3$]: Synthesis and Crystal Structure,
Z. Naturforsch. **2015**, *70b*, 161-164, DOI



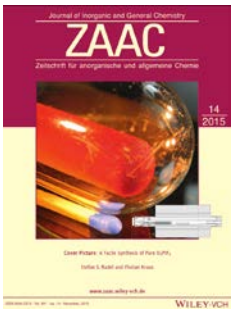
68. F. Deiser, F. Kraus, H. Schmidbaur,
Bis(triphenylphosphine)silver(I) perrhenate, a cyclic dimer,
Chem. Commun. **2015**, *51*, 6746-6748, Link

69. P. Woidy, M. Bühl, F. Kraus,
$[UO_2(NH_3)_5]Br_2 \cdot NH_3$: Synthesis, Crystal Structure, and Speciation in Liquid Ammonia Solution by First-Principles Molecular Dynamics Simulations,
Dalton Trans. **2015**, *44*, 7332-7337, Link

70. A. Siebel, Y. Gorlin, M. Piana, T. Huthwelker, H. Jha, G. Monsch, F. Kraus, H. A. Gasteiger, M. Tromp,
***Operando* Characterization of Intermediates of Lithium-Sulfur Battery**,
J. Electrochem. Soc. **2015,** *162*, A1146-A1155, PDF

71. P. Woidy, A. J. Karttunen, S. S. Rudel, F. Kraus,
The Reactions of $TiCl_3$, and of UF_4 with $TiCl_3$ in liquid Ammonia: Unusual Coordination Spheres in $[Ti(NH_3)_8]Cl_3 \cdot 6NH_3$ and $[UF(NH_3)_8]Cl_3 \cdot 3.5NH_3$,
Chem. Commun. **2015**, *51*, 11826-11829, Link

72. S. S. Rudel, F. Kraus,
A facile synthesis of pure O_2PtF_6,
Z. Anorg. Allgem. Chem. **2015**, *641*, 2404-2407, DOI



73. S. Ivlev, A. J. Karttunen, R. Ostvald, F. Kraus,
$RbBrF_4$ revisited,
Z. Anorg. Allgem. Chem. **2015**, *641*, 2593-2598, DOI

74. T. G. Müller, F. Kraus,
Crystal structure of $[Co(NH_3)_6][Co(CO)_4]_2$,
Acta Cryst. E **2015**, *71*, 1418-1420, DOI

2016

75. S. I. Ivlev, D. V. Akimov, N. B. Egorov, F. Kraus,
Synthesis and Characterization of $LiClO_4 \cdot H_2O$,
Monatsh. Chem. **2016**, *147*, 279-288, Link

76. T. G. Müller, F. Kraus,
Crystal Structure of $Ag_2(\mu\text{-}SCN)_2(NH_3)_4$,
Acta Cryst. E **2016**, 72, 881-883, Link

77. D. Naglav, M. R. Buchner, G. Bendt, F. Kraus, S. Schulz,
Auf neuen Pfaden – Per Anhalter durch die Berylliumchemie, Off the beaten track – A Hitchhiker's Guide to Beryllium Chemistry,
Angew. Chem. **2016**, *128*, 10718-10733, Link
Angew. Chem. Int. Ed. **2016**, *55*, 10562-10576, Link

78. S. I. Ivlev, R. V. Ostvald, F. Kraus,
A New Look at $NaBrF_4$: The Most BrF_3-Rich Tetrafluoridobromate(III) by Mass,
Monatsh. Chem. **2016**, *147*, 1661-1668, Link

79. B. Scheibe, S. Lippert, S. S. Rudel, M. R. Buchner, O. Burghaus, C. Pietzonka, M. Koch, A. J. Karttunen, and F. Kraus,
$NOUF_6$ revisited. A comprehensive study of a hexafluoridouranate(V) salt.,
Chem. Eur. J. **2016**, *22*, 12145-12153, Link

80. T. G. Müller, M. R. Buchner, T. J. Scheubeck, N. Korber, F. Kraus,
Ammine Complexes of Na-, Ag-, Mn-, and Zn-Azides,
Z. Anorg. Allgem. Chem. **2016**, *642*, 796-803, Link

81. T. G. Müller, J. Mogk, M. Conrad, F. Kraus,
Octaammine Eu(II) and Yb(II) Azides and their Thermal Decomposition to the Nitrides,
Eur. J. Inorg. Chem. **2016**, 4162-4169, Link

82. J. Bandemehr, M. Conrad, F. Kraus,
A Redetermination of the Crystal Structure of NbF_4,
Acta Cryst. E, **2016**, *72*, 1211-1213, Link

83. V. R. Celinski, M. Ditter, F. Kraus, F. Fujara, J. Schmedt auf der Günne,
Trace determination and pressure estimation of fluorine F_2 caused by irradiation damage in minerals and synthetic fluorides,
Chem. Eur. J. **2016**, *22*, 18388-18393, Link, Hot Paper

84. S. I. Ivlev, A. J. Karttunen, R. V. Ostvald, F. Kraus,
$Br_2F_7^-$ and $Br_3F_{10}^-$: Peculiar anions showing μ_2- and μ_3-bridging F-atoms,
Chem. Commun. **2016**, *52*, 12040-12043, Link

85. K. Duda, A. Himmelspach, J. Landmann, F. Kraus, M. Finze,
Synthesis of Fluorohydridoborate Anions $[BHF_3]^-$ and $[1\text{-}HF_2B\text{-}9,12\text{-}X_2\text{-}closo\text{-}1,2\text{-}C_2B_{10}H_9]^-$ (X = H, I): Deboronation of 1,2- and 1,7-dicarba-*closo*-dodecaboranes with anhydrous $[Me_4N]F$,
Chem. Commun. **2016**, *52*, 13241-13244, Link

86. P. Woidy, F. Kraus,
Crystal Structure of $[UO_2(NH_3)_5]NO_3 \cdot NH_3$,
Acta Cryst. E **2016**, *72*, 1710-1713, Link

87. F. Kraus, M. Fichtl, S. Baer,
Crystal structure of $[Ag(NH_3)_3]_2[Ag(NH_3)_2]_2[SnF_6]F_2$, a compound showing argentophilic interactions,
Acta Cryst. E **2016**, *72*, 1860-1863, Link

2017

88. B. Scheibe, S. S. Rudel, M. R. Buchner, A. J. Karttunen, F. Kraus,
A 1D Coordination Polymer of UF_5 with HCN as a Ligand – $[UF_5(HCN)_2]$,
Chem. Eur. J. **2017**, *23*, 291-295, Link

89. S. S. Rudel, F. Kraus,
Facile Synthesis of Pure Uranium Halides: UCl_4, UBr_4, UI_4,
Dalton Trans. **2017**, *46*, 5835-5842, Link

90. K. Reuter, S. S. Rudel, M. R. Buchner, F. Kraus, C. von Hänisch,
Crown ether complexes of alkali metal chlorides from SO_2,
Chem. Eur. J. **2017**, *23*, 9607-9617, Link

91. J. Bandemehr, M. Conrad, F. Kraus,
Redetermination of the crystal structure of $K_2Hg(SCN)_4$,
Acta Cryst. E **2017**, *73*, 1073-1075, Link

92. S. I. Ivlev, T. Soltner, A. J. Karttunen, M. J. Mühlbauer, A. J. Kornath, F. Kraus,
Syntheses and Crystal Structures of Sodium Hydrogen Fluorides $NaF \cdot nHF$ (n = 2, 3, 4),
Z. Anorg. Allg. Chem. **2017**, *643*, 1436-1443, Link

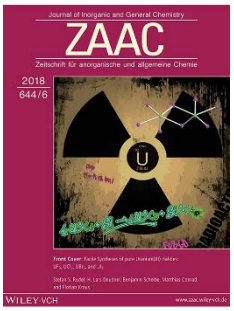
93. H. L. Deubner, S. S. Rudel, F. Kraus,
A Simple Access to Pure Thorium(IV) Halides ($ThCl_4$, $ThBr_4$ & ThI_4),
Z. Anorg. Allg. Chem. **2017**, *643*, 2005-2010, Link

94. H. L. Deubner, F. Kraus,
The decomposition products of sulfur hexafluoride (SF_6) with metals dissolved in liquid ammonia,
Inorganics **2017**, *5*, 68, Link

95. C. Schöttle, S. S. Rudel, R. Popescu, J. Treptow, D. Gerthsen, F. Kraus, C. Feldmann,
Nanosized Gadolinium and Uranium – Two Representatives of High-Reactivity Lanthanide and Actinide Metal Nanoparticles,
ACS Omega **2017**, *2*, 9144-9149, Link

96. P. Muggli, E. Adli, R. Apsimon, F. Asmus, R. Baartman, A.-M. Bachmann, M. Barros Marin, F. Batsch, J. Bauche, V. K. Berglyd Olsen, M. Bernardini, B. Biskup, A. Boccardi, T. Bogey, T. Bohl, C. Bracco, F. Braunmuller, S. Burger, G. Burt, S. Bustamante, B. Buttenschön, A. Butterworth, A. Caldwell, M. Cascella, E. Chevallay, M. Chung, H. Damerau, L. Deacon, A. Dexter, P. Dirksen, S. Doebert, J. Farmer, V. Fedosseev, T. Feniet, G. Fior, R. Fiorito, R. Fonseca, F. Friebel, P. Gander, S. Gessner, I. Gorgisyan, A. A. Gorn, O. Grulke, E. Gschwendtner, A. Guerrero, J. Hansen, C. Hessler, W. Hofle, J. Holloway, M. Hüther, M. Ibison, M.R. Islam, L. Jensen, S. Jolly, M. Kasim, F. Keeble, S.-Y. Kim, F. Kraus, A. Lasheen, T. Lefevre, G. LeGodec, Y. Li, S. Liu, N. Lopes, K. V. Lotov, M. Martyanov, S. Mazzoni, D. Medina Godoy, O. Mete, V. A. Minakov, R. Mompo, J. Moody, M. T. Moreira, J. Mitchell, C. Mutin, P. Norreys, E. Öz, E. Ozturk, W. Pauw, A. Pardone, C. Pasquino, K. Pepitone, A. Petrenko, S. Pitmann, G. Plyushchev, A. Pukhov, K. Rieger, H. Ruhl, J. Schmidt, I. A. Shalimova, E. Shaposhnikova, P. Sherwood, L. Silva, A. P. Sosedkin, R. I. Spitsyn, K. Szczurek, J. Thomas, P. V. Tuev, M. Turner, V. Verzilov, J. Vieira, H. Vincke, C. P. Welsch, B. Williamson, M. Wing, G. Xia, H. Zhang,
AWAKE readiness for the study of the seeded self-modulation of a 400 GeV proton bunch,
Plasma Phys. Controlled Fusion **2017**, *60*, 014046, Link

2018



97. S. S. Rudel, H. L. Deubner, B. Scheibe, M. Conrad, F. Kraus,
Facile Syntheses of pure Uranium(III) Halides: UF_3, UCl_3, UBr_3, and UI_3,
Z. Anorg. Allg. Chem. **2018**, *644*, 323-329, Link

98. T. Quax, F. Altegoer, F. Rossi, Z. Li, M. Rodriguez-Franco, F. Kraus, G. Bange, S.-V. Albers,
Structure and function of the archaeal response regulator CheY,
PNAS **2018**, Link

99. S. I. Ivlev, A. J. Karttunen, M. R. Buchner, M. Conrad, R. V. Ostvald, F. Kraus,
Synthesis and Characterization of Barium Hexafluoridoosmates,
Crystals **2018**, *8*, 11, Link

100. S. S. Rudel, C. Pietzonka, M. Hoelzel, F. Kraus,
$[UCl_4(HCN)_4]$ – A hydrogen cyanide complex of uranium tetrachloride,
Chem. Commun. **2018**, *54*, 1241-1244, Link

101. B. Scheibe, C. Pietzonka, O. Mustonen, M. Karppinen, A. J. Karttunen, M. Atanasov, F. Neese, M. Conrad, F. Kraus,
The $[U_2F_{12}]^{2-}$ anion of $Sr[U_2F_{12}]$,
Angew. Chem. Int. Ed. **2018**, *57*, 2914-2918, Link

102. L. Skripnikov, S. Schmidt, J. Ullmann, C. Geppert, F. Kraus, B. Kresse, W. Nörtershäuser, A. F. Privalov, B. Scheibe, V. M. Shabaev, M. Vogel, and A. V. Volotka,
A New Nuclear Magnetic Moment of ^{209}Bi - Resolving the Bismuth Hyperfine Puzzle,
Phys. Rev. Lett. **2018**, *120*, 093001, Link

103. H. L. Deubner, F. Kraus,
Redetermination of the crystal structure of ThI_4,
IUCrData **2018**, *3*, x180201, Link

104. M. Zyuzin, D. Baranov, A. Escudero, I. Chakraborty, A. Tsypkin, E. Ushakova, F. Kraus, W. Parak, S. Makarov,
Photoluminescence quenching of dye molecules near a resonant silicon nanoparticle,
Scientific Reports **2018**, *8*, 6107, Link

105. S. I. Ivlev, F. Kraus,
Redetermination of the crystal structure of $K[BrF_4]$ from single-crystal X-Ray diffraction data,
IUCrData **2018**, *3*, x180646, Link

106. R. E. Stene, B. Scheibe, C. Pietzonka, A. J. Karttunen, W. Petry, F. Kraus,
MoF_5 revisited. A comprehensive study of MoF_5.
J. Fluorine Chem. **2018**, *211*, 171-179, Link

107. S. I. Ivlev, A. J. Karttunen, M. R. Buchner, M. Conrad, F. Kraus,
The Interhalogen Cations $[Br_2F_5]^+$ and $[Br_3F_8]^+$,
Angew. Chem. **2018**, *44*, 14850-14855, Link
Angew. Chem. Int. Ed. **2018**, *57*, 14640-14644, Link

108. S. S. Rudel, S. A. Baer, P. Woidy, T. G. Müller, H.-L. Deubner, B. Scheibe, F. Kraus,
Recent Advances in the Chemistry of Uranium Halides in Anhydrous Ammonia,
Z. Kristallogr. **2018**, *233*, 817-844, DOI

109. S. I. Ivlev, T. G. Müller, A. J. Karttunen, M. Hoelzel, F. Kraus,
A Neutron Diffraction and Quantum-Chemical Study of $[Mn(ND_3)_6](N_3)_2$,
Z. Anorg. Allg. Chem. **2018**, *644*, 1349-1353, Link

110. J. Bandemehr, H. L. Deubner, M. Sachs, F. Kraus,
Li_2PbF_6 and $SrPbF_6$ revisited,
Z. Anorg. Allg. Chem. **2018**, *644*, 1721-1726, DOI

111. The AWAKE Collaboration: E. Adli, A. Ahuja, O. Apsimon, R. Apsimon, A.-M. Bachmann, , D. Barrientos, F. Batsch, , J. Bauche, V.K. Berglyd Olsen, M. Bernardini, T. Bohl, C. Bracco, F. Braunmüller, G. Burt, B. Buttenschön, A. Caldwell, M. Cascella, J. Chappell, E. Chevallay, M. Chung, D. Cooke, H. Damerau, L. Deacon, L.H. Deubner, A. Dexter, S. Doebert, J. Farmer, V.N. Fedosseev, R. Fiorito, R.A. Fonseca, F. Friebel, L. Garolfi, S. Gessner, I. Gorgisyan, A.A. Gorn, E. Granados, O. Grulke, E. Gschwendtner, J. Hansen, A. Helm, J.R. Henderson, M. Hüther, M. Ibison, L. Jensen, S. Jolly, F. Keeble, S.-Y. Kim, F. Kraus, Y. Li, S. Liu, N. Lopes, K.V. Lotov, L. Maricalva Brun, M. Martyanov, S. Mazzoni, D. Medina Godoy, V.A. Minakov, J. Mitchell, J.C. Molendijk, J.T. Moody, M. Moreira, P. Muggli, E. Öz, C. Pasquino, A. Pardons, F. Peña Asmus, K. Pepitone, A. Perera, A. Petrenko, S. Pitman, A. Pukhov, S. Rey, K. Rieger, H. Ruhl, J.S. Schmidt, I.A. Shalimova, P. Sherwood, L.O. Silva, L. Soby, A.P. Sosedkin, R. Speroni, R.I. Spitsyn, P.V. Tuev, M. Turner, F. Velotti, L. Verra, V.A. Verzilov, J. Vieira, C.P. Welsch, B. Williamson, M. Wing, B. Woolley, and G. Xia,
Acceleration of electrons in the plasma wakefield of a proton bunch,
Nature **2018**, *561*, 363–367, Link

112. S. I. Ivlev, M. R. Buchner, A. J. Karttunen, F. Kraus,
Synthesis and characterization of the pyridine – bromine trifluoride (1/1) complex [py·BrF_3],
J. Fluorine Chem. **2018**, *215*, 17-24, Link

113. M. Conrad, C. Pietzonka, J. Bernzen, V. Motta, K.-M. Weitzel, A. J. Karttunen,
The fluoroperovskite $TlMnF_3$,
Z. Anorg. Allg. Chem. **2018**, *644*, 1557-1561, DOI

114. M. Sachs, A. J. Karttunen, F. Kraus,
Half-metallicity in uranium intermetallics: Crystal structure prediction of a high-pressure phase of UCo,
J. Phys.: Condens. Matter **2018**, *31*, 025501, Link

2019

115. S. I. Ivlev, A. V. Malin, A. J. Karttunen, R. V. Ostvald, F. Kraus,
Reactions of $KBrF_4$ with Platinum Metals,
J. Fluorine Chem. **2019**, *218*, 11-20, Link

116. J. Linnera, S. I. Ivlev, F. Kraus, A. J. Karttunen,
F-bridged Anions of Bromine and Gold: Predictions of

Unexpected Behavior,
Z. Anorg. Allg. Chem. **2019**, accepted, Link

117. P. Bielec, L. Eisenburger, H. L. Deubner, D. Günther, F. Kraus, O. Oeckler, W. Schnick,
Targeting Vacancies in Nitridosilicates: Aliovalent Substitution of M^{2+} (M = Ca,Sr) by Sc^{3+} and U^{3+},
Angew. Chem. Int. Ed. **2018**, accepted, Link

118. M. Turner, the AWAKE Collaboration,
Experimental observation of plasma wakefield growth driven by the seeded self-modulation of a proton bunch,
Phys. Rev. Lett. **2019**, *122*, 054801, DOI

119. E. Adli, A. Ahuja, O. Apsimon, R. Apsimon, A.-M. Bachmann, D. Barrientos, M. M. Barros, J. Batkiewicz, F. Batsch, J. Bauche, V.K. Berglyd Olsen, M. Bernardini, B. Biskup, A. Boccardi, T. Bogey, T. Bohl, C. Bracco, F. Braunmüller, S. Burger, G. Burt, S. Bustamante, B. Buttenschön, A. Caldwell, M. Cascella, J. Chappell, E. Chevallay, M. Chung, D. Cooke, H. Damerau, L. Deacon, L.H. Deubner, A. Dexter, S. Doebert, J. Farmer, V.N. Fedosseev, G. Fior, R. Fiorito, R.A. Fonseca, F. Friebel, L. Garolfi, S. Gessner, I. Gorgisyan, A.A. Gorn, E. Granados, O. Grulke, E. Gschwendtner, A. Guerrero, J. Hansen, A. Helm, J.R. Henderson, C. Hessler, W. Hoe, M. Hüther, M. Ibison, L. Jensen, S. Jolly, F. Keeble, S.-Y. Kim, F. Kraus, T. Lefevre, G. LeGodec, Y. Li, S. Liu, N. Lopes, K.V. Lotov, L. Maricalva Brun, M. Martyanov, S. Mazzoni, D. Medina Godoy, V.A. Minakov, J. Mitchell, J.C. Molendijk, R. Mompo, J.T. Moody, M. Moreira, P. Muggli, C. Mutin, E. Öz, E. Ozturk, C. Pasquino, A. Pardons, F. Pena Asmus, K. Pepitone, A. Perera, A. Petrenko, S. Pitman, G. Plyushchev, A. Pukhov, S. Rey, K. Rieger, H. Ruhl, J.S. Schmidt, I.A. Shalimova, E. Shaposhnikova, P. Sherwood, L.O. Silva, L. Soby, A.P. Sosedkin, R. Speroni, R.I. Spitsyn, P.V. Tuev, M. Turner, F. Velotti, L. Verra, V.A. Verzilov, J. Vieira, H. Vincke, C.P. Welsch, B. Williamson, M. Wing, B. Woolley, G. Xia,
Experimental observation of proton bunch modulation in a plasma, at varying plasma densities,
Phys. Rev. Lett. **2019**, 122, 054802, DOI

120. W. Nörtershäuser, J. Ullmann, L. Skripnikov, Z. Andelkovic, C. Brandau, A. Dax, W. Geithner, C. Geppert, C. Gorges, M. Hammen, V. Hannen, S. Kaufmann, K. König, F. Kraus, Benjamin Kresse, Y. A. Litvinov, M. Lochmann, B. Maass, J. Meisner, T. Murböck, A. F. Privalov, R. Sánchez, B. Scheibe, M. Schmidt, S. Schmidt, V. M. Shabaev, M. Steck, T. Stöhlker, R. C. Thompson, C. Trageser, J. Vollbrecht, A. V. Volotka, C. Weinheimer,
The Hyperfine Puzzle of Strong-Field Bound-State QED,
Hyperfine Interact. **2019**, *submitted*,

121. S. I. Ivlev, A. J. Karttunen, M. Hoelzel, M. Conrad, F. Kraus,
The Crystal Structures of α- and β-F_2 revisited,
Chem. Eur. J. **2019**, accepted, Link

122. S. I. Ivlev, M. Conrad, F. Kraus,
HKLF5Tools: A Program for Processing Diffraction Data of Non-Merohedrally Twinned Crystals,
Z. Krist. **2019**, accepted, Link

123. S. I. Ivlev, K. Gaul, M. Chen, A. J. Karttunen, R. Berger,[a] and F. Kraus,
Synthesis and Characterization of $[Br_3][MF_6]$ (*M* = Sb, Ir), as well as Quantum Chemical Study of $[Br_3]^+$ Structure, Chemical Bonding, and Relativistic Effects compared to $[XBr_2]^+$ (*X* = Br, I, At, Ts) and $[TsZ_2]^+$ (*Z* = F, Cl, Br, I, At, Ts),
Chem. Eur. J. **2019**, accepted, Link

Books

1. T. Schlöder, F. Kraus, S. Riedel,
   Fluorides: Solid-State Chemistry,
   Encyclopedia of Inorganic Chemistry **2014**, John Wiley & Sons, Link

2. S.A. Baer, F. Kraus,
   Preparation of $SiF_4(NH_3)_2$ and its higher ammoniate $SiF_4(NH_3)_2 \cdot 2NH_3$,
   in H. Roesky, *Efficient Methods for Preparing Silicon Compounds*,
   Academic Press **2016**, London, Oxford, Boston, New York, San Diego,
   Link.

Other Publications

1. F. Kraus,
   Uran und Fluor – zwei eng verwobene Elemente,
   Nachrichten aus der Chemie **2008**, *56*, 1236-1240, PDF

2. F. Kraus,
   Keine Angst vor Paragraphen – Radioaktive Stoffe,
   Nachrichten aus der Chemie **2011**, *59*, 1044-1049, PDF

3. B. Baumeister, W. Schmid, F. Kraus, W. Petry,
   An alternative chemical cleaning procedure for blank monolithic U-Mo foils,
   European Research Reactor Conference **2012**, PDF

4. P. Adelhelm, M. Armbrüster, F. Kraus,
   Trendbericht Festkörperchemie,
   Nachr. Chem. **2013**, *61*, 252-264, PDF

5. F. Kraus,
   Von "Stinkspat" und elementarem Fluor,
   labor&more **2014**, *2*, 38-42, PDF

6. S. I. Ivlev, P. Woidy, I. I. Zherin, R. V. Ostvald, F. Kraus, M. Yu. Voytenko, V. V. Shagalov,
   Crystallographic Studies of Cesium Tetrafluorobromates(III),
   Procedia Chem. **2014**, *11*, 35-42, Abstract

7. S. I. Ivlev, P. Woidy, F. Kraus, A. Rybakov, I. I. Zherin, R. V. Ostvald, V. V. Shagalov,
   Simultaneous Fluorination and Oxidation of Iridium by Metal Tetrafluorobromates,
   Procedia Chem. **2014**, *11*, 43-48, Abstract

8. F. Kraus,
   Rezension zu "N Stickstoff – ein Element schreibt Weltgeschichte"

von G. Ertl, J. Söntgen (Hrsg.), ekom, München 2015.
Nachr. Chem. **2016**, *1,* 67-68

9. F. Kraus, M. R. Buchner,
Beryllium das Supergift?,
Aktuelle Wochenschau der GDCh **2016**, Link

10. F. Kraus,
Von elementarem Fluor und gewagten Experimenten,
Nachr. Chem. **2019**, *67*, 54-58