

# Publikationsliste *Frank Tambornino, Dr. rer. nat.*

Stand: 20.02.2023

## 2023

29. J. Pfeiffer, H. Günther, L. Völlinger, D. Botros, B. Scheibe, M. Möbs, F. Kraus, F. Weigend, **F. Tambornino\***, “Double addition vs. ring closure: Systematic reactivity study of CO(NCO)<sub>2</sub> and CO(NCS)<sub>2</sub> towards hydrogen halides”, *Chem. Eur. J.* **2023**, just accepted. doi:10.1002/chem.202203983.

## 2022

28. A. Shlyaykher, T. Pippinger, Th. Schleid, O. Reckeweg, **F. Tambornino\***, “Syntheses, crystallographic characterization and structural relations of Rb[SCN]”, *Z. Kristallogr. – Cryst. Mater.* **2022**, 237(1–3), 69–75. doi:10.1515/zkri-2022-0015.
27. T. Hohl, **F. Tambornino**, C. Hoch\*, “Structure and Bonding in CsNa<sub>2</sub>Hg<sub>18</sub>, a New Ternary Amalgam with Strong Coulombic Bonding Contributions”, *Crystals* **2022**, 12(11), 1679. doi:10.3390/cryst12111679.
26. L. Nusser, T. Hohl, **F. Tambornino**, C. Hoch\*, “The Cesium Oxide Mercuride Cs<sub>18</sub>Hg<sub>8</sub>O<sub>6</sub>”, *Z. Anorg. Allg. Chem.* **2022**, 648(10), e202100389. doi:10.1002/zaac.202100389. (*Front Cover*)
25. **F. Tambornino**, C. Hoch\*, “Crystal structure of the dodecanuclear coordination compounds [RE<sub>12</sub>(DMF)<sub>24</sub>(HCOO)<sub>8</sub>(OH)<sub>16</sub>]I<sub>3</sub> · 4 DMF (RE = Eu, Nd)”, *Austr. J. Chem.* **2022**, online early. doi:10.1071/CH21336.

## 2021

24. A. Shlyaykher, M. Ehmman, A. J. Karttunen, **F. Tambornino\***, “A Comprehensive Study on the Full Series of Alkali Metal Selenocyanates A<sup>I</sup>[SeCN] (A<sup>I</sup> = Li – Cs)”, *Chem. Eur. J.* **2021**, 27(54), 13552–13557. doi:10.1002/chem.202102058. (*Cover Feature*)
23. R. Weller, L. Ruppach, A. Shlyaykher, **F. Tambornino**, C. G. Werncke\*, “Homoleptic Quasilinear Metal(I/II) Silylamides of Cr – Co with Phenyl and Allyl Functions – Impact of Oxidation State on Secondary Ligand Interactions”, *Dalton Trans.* **2021**, 50, 10947–10963. doi:10.1039/d1dt01543e
22. J. Pfeiffer, C. Trost, A. Pachkovska, and **F. Tambornino\***, “A Crystallographic, Spectroscopic, and Computational Investigation of Carbonyl and Oxalyl Diisothiocyanate”, *Inorg. Chem.* **2021**, 60(14), 10722–10728. doi:10.1021/acs.inorgchem.1c01421
21. F. Pan, S. Wei, L. Guggolz, A. R. Eulenstein, **F. Tambornino**, S. Dehnen\*, “Insights into Formation and Relationship of Multimetallic Clusters: On the Way toward Bi-Rich Nanostructures”, *J. Am. Chem. Soc.* **2021**, 143(18), 7176–7188, doi:10.1021/jacs.1c02653
20. F. A. Watt, L. Burkhardt, R. Schoch, S. Mitzinger, M. Bauer, F. Weigend\*, J. M. Goicoechea\*, **F. Tambornino\***, S. Hohloch\*, “ $\eta^3$ -Coordination and Functionalization of the 2-Phosphaethynthiolate Anion at Lanthanum(III)”, *Angew. Chem. Int. Ed.* **2021**, 60(17), 9534–9539. doi:10.1002/anie.202100559.
19. B. Peters, M. Möbs, M. Nick, **F. Tambornino**, S. Dehnen\*, “Ionic Liquid-Driven Formation of and Cation Exchange in Layered Sulfido Stannates – A CH<sub>2</sub> Group Makes the Difference”, *ChemistryOpen* **2021**, 10, 227–232. doi: 10.1002/open.202000287

## 2020

18. E. Geringer, E. Leusmann, **F. Tambornino**, M. Gerhard, M. Koch, S. Dehnen\*, “Trapping of ZnCl<sub>2</sub> by bipyridyl-functionalized organotin sulfide clusters, and its effect on optical properties”, *Chem. Comm.* **2020**, 56, 4769–4772. doi:10.1039/d0cc01887b.

17. N. Dehnhardt, C. Berthold, K. Dollberg, **F. Tambornino**, J. Heine\*, “Synthesis and crystal structures of two layered Cu(I) and Ag(I) iodidometalates”, *Z. Kristallogr.* **2020**, *235*, 269–273. doi: 10.1515/zkri-2020-0021
- 2019**
16. Q. Yuan, **F. Tambornino**, A. Hinz, W. T. Borden, J. M. Goicoechea\*, B. Chen, X.-B. Wang\*, “Photoelectron spectroscopy and theoretical studies of  $\text{PCSe}^-$ ,  $\text{AsCS}^-$ ,  $\text{AsCSe}^-$ , and  $\text{NCSe}^-$ : Insights into the electronic structures of the whole family of  $\text{ECX}^-$  anions”, *Angew. Chem. Int. Ed.* **2019**, *58*, 15062–15068. doi:10.1002/ange.201906904. (*Frontispiz*)
15. **F. Tambornino**, E. E. L. Tanner, H. M. A. Amin, J. Holter, T. Claridge, R. G. Compton\*, J. M. Goicoechea\*, “Electrochemical Oxidation of the Phospha- and Arsaethynolate Anions,  $\text{PCO}^-$  and  $\text{AsCO}^-$ ”, *Eur. J. Inorg. Chem.* **2019**, *11–12*, 1644–1649. doi:10.1002/ejic.201801503.
- 2018**
14. **F. Tambornino**, A. Hinz, R. Köppe, J. M. Goicoechea\*, “A General Synthesis of Phosphorus- and Arsenic-Containing Analogues of the Thio- and Seleno-Cyanate Anions.”, *Angew. Chem. Int. Ed.* **2018**, *57*, 8230–8234. doi:10.1002/anie.201805348.
- 2017**
13. **F. Tambornino**, C. Hoch\*, “The simplest representative of a complex series: the Hg-rich amalgam  $\text{Yb}_{11}\text{Hg}_{54}$ ”, *Z. Kristallogr.* **2017**, *232*, 557–565. doi:10.1515/zkri-2016-2036.
- 2016**
12. **F. Tambornino**, J. Sappl, F. Pultar, T. M. Cong, S. Hübner, T. Giftthaler, C. Hoch\*, “ElectrocrySTALLIZATION – a synthetic method for new intermetallic phases with polar metal-metal bonding”, *Inorg. Chem.* **2016**, *55*, 11551–11559. doi:10.1021/acs.inorgchem.6b02068.
11. M. Wörsching, **F. Tambornino**, S. Datz, C. Hoch\*, “Chemical Twinning of Salt and Metal in the Subnitridometalates  $\text{Ba}_{23}\text{Na}_{11}(\text{MN}_4)_4$  with  $M = \text{V}, \text{Nb}, \text{Ta}$ ”, *Angew. Chem.* **2016**, *128*, 11026–11030. doi:10.1002/ange.201605113.; *Angew. Chem. Int. Ed.* **2016**, *55*, 10868–10871. doi:10.1002/anie.201605113.
10. **F. Tambornino**, K. Schwärzer and C. Hoch\*, “Synthesis and characterization of  $\text{La}_{11+x}\text{Hg}_{45-x}$  and  $\text{RE}_{11}\text{Hg}_{44.5}$  ( $\text{RE}=\text{Nd}, \text{Sm}$ ) as hettotypes of the  $\text{Sm}_{11}\text{Cd}_{45}$  structure type”, *J. Solid State Chem.* **2016**, *242*, 162–169. doi:10.1016/j.jssc.2016.07.001.
9. A. Schmidt, P. Köstler, **F. Tambornino** and T. Bein\*, “Efficient Functionalization of Mesoporous MCM-41 with Aromatic Organo-Lithium Reagents”, *Micropor. Mesopor. Mat.* **2016**, *223*, 219–224. doi:10.1016/j.micromeso.2015.10.015.
- 2015**
8. A. Marchuk, S. Wendl, N. Imamovic, **F. Tambornino**, D. Wiechert, P.J. Schmidt, W. Schnick\*, “Nontypical Luminescence Properties and Structural Relation of  $\text{Ba}_3\text{P}_5\text{N}_{10}\text{X} : \text{Eu}^{2+}$  ( $\text{X} = \text{Cl}, \text{I}$ ): Nitridophosphate Halides with Zeolite-like Structure”, *Chem. Mater.* **2015**, *27*, 6432–6441. doi:10.1021/acs.chemmater.5b02668.
7. **F. Tambornino**, C. Hoch\*, “The Mercury-richest Europium Amalgam,  $\text{Eu}_{10}\text{Hg}_{55}$ ”, *Z. Anorg. Allg. Chem.* **2015** *641*, 537–542. doi:10.1002/zaac.201400561.
6. **F. Tambornino**, C. Hoch\*, “Bad metal behaviour in the new Hg-rich amalgam  $\text{KHg}_6$  with polar metallic bonding”, *J. Alloys Compd.* **2015**, *618*, 299–304. doi:10.1016/j.jallcom.2014.08.173.

5. **F. Tambornino**, J. Sappl, C. Hoch\*, “The  $\text{Gd}_{14}\text{Ag}_{51}$  structure type and its relation to some complex amalgam structures”, *J. Alloys Compd.* **2015**, *618*, 326–335 (2015). doi:10.1016/j.jallcom.2014.08.017.

**2014**

4. **F. Tambornino**, P. Bielec, C. Hoch\*, “Redetermination of  $[\text{EuCl}_2(\text{H}_2\text{O})_6]\text{Cl}$ ”, *Acta Cryst.* **2014**, *E70*, i27. doi:10.1107/S1600536814010307.

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3. **F. Tambornino**, C. Hoch\*, “The new potassium amalgam  $\text{KHg}_6$ ”, *Z. Kristallogr. Suppl.* **2013**, *32*.
2. **F. Tambornino**, C. Hoch\*, “The Hg-richest europium amalgam,  $\text{Eu}_{10}\text{Hg}_{55}$ ”, *Z. Kristallogr. Suppl.* **2013**, *32*.
1. R. Frankovsky, H. Luetkens, **F. Tambornino**, A. Marchuk, G. Pascua, A. Amato, H.-H. Klauss, D. Johrendt\*, “Short-range magnetic order and effective suppression of superconductivity by manganese doping in  $\text{LaFe}_{1-x}\text{Mn}_x\text{AsO}_{1-y}\text{F}_y$ ”, *Phys. Rev. B* **2013**, *87*, 174515. doi:10.1103/PhysRevB.87.174515.