

Publications, Prof. Dr. Anja-Verena Mudring

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Peer-reviewed original articles

2020

241. O. Renier, G. Bousrez, M. Yang, M. Hölder, B. Mallick, **A.-V. Mudring**, 1-Alkyl-2-methyl-3-dodecylimidazolium Bromides: How does C2-Methylation at the Imidazolium Ring Affects Mesophase Formation?, *CrystEngComm*, **2020**, *accepted*, xxx-xxx. DOI:

240. S. Pakhira, N.S. Sangeetha, V. Smetana, **A.-V. Mudring**, D. C. Johnston, Emergence of ferromagnetism due to Ir substitutions in single-crystalline $\text{Ba}(\text{Co}_{1-x}\text{Ir}_x)_2\text{As}_2$ ($0 \leq x \leq 0.25$), *J. Phys.: Cond. Mat.*, **2020**, *accepted*, xxx-xxx. DOI:

239. V. Babizhetskyy, Ya. Lomnytska, M. Dzevenko, C. Zheng, V. Smetana, **A.-V. Mudring**, Investigation in the ternary Ta-Ni-P system: Solid state phase equilibria at $T = 1070$ K, crystal and electronic structures of the new ternary phosphides, *JALCOM*, **2020**, *early view*, xxx-xxx. DOI: 10.1016/j.jallcom.2020.158122.

238. T. Alammar, V. Smetana, H. Pei, I. Hamm, M. Wark, **A.-V. Mudring**, Not only just a green synthesis and application of SrTiO_3 : Crystal facet engineering of SrTiO_3 nanoparticles for photocatalytic applications, *Adv. Sus. Sys.*, **2020**, *accepted*, xxx-xxx. DOI:

237. F.C. Goerigk, V. Paterlini, K.V. Dorn, **A.-V. Mudring**, Th. Schleid, Synthesis and Crystal Structure of the Short $\text{LnSb}_2\text{O}_4\text{Br}$ Series ($\text{Ln} = \text{Eu} - \text{Tb}$) and Luminescence Properties of Eu^{3+} -Doped Samples, *Crystals*, **2020**, *10*, 1089 (23 pages). DOI: 10.3390/cryst10121089.

236. S. Siebeneichler, K.V. Dorn, V. Smetana, M. Valldor, **A.-V. Mudring**, A soft chemistry approach to the synthesis of single crystalline and highly pure $(\text{NH}_4)\text{CoF}_3$ for optical and magnetic investigations, *J. Chem. Phys.*, **2020**, *153*, 104501. DOI: 10.1063/5.0023343.

235. J. Namanga, V. Smetana, H. Pei, N. Gerlitzki, **A.-V. Mudring**, Fluorinated cationic iridium(III) complex yielding an exceptional efficient and long term stable red light emitting electrochemical cell, *ACS Energy Mat.*, **2020**, *3*, 9271-9277. DOI: 10.1021/acsaem.0c01600.

234. D. Prodius, M. Klocke, V. Smetana, T. Alammar, M. G. Perez, T.L. Windus, I. C. Nlebedim, **A.-V. Mudring**, A straightforward route for separation of rare-earth elements through selective dissolution, *Chem. Commun.*, **2020**, *56*, 11386-11389. DOI: 10.1039/d0cc02270e.

233. N. S. Sangeetha, Santanu Pakhira, D. H. Ryan, V. Smetana, **A.-V. Mudring**, D.C. Johnston, Magnetic phase transitions in $\text{Eu}(\text{Co}_{1-x}\text{Ni}_x)_{2-y}\text{As}_2$ single crystals, *Phys. Rev. Mat.*, **2020**, *4*, 024410. DOI: 10.1103/PhysRevMaterials.4.084407.

232. T. Bell, V. Smetana, **A.-V. Mudring**, G. H. Meyer, Binary Intermetallics in the 70 at% R Region of Two R-Pd Systems (R = Tb, Er): Hidden, Obscured or Nonexistent?, *Inorg. Chem.*, **2020**, *59*, 10802–10812. DOI: 10.1021/acs.inorgchem.0c01311.

- 231.** K. Richter, K.V. Dorn, V. Smetana, **A.-V. Mudring**, Elucidating Structure-Property Relationships in Imidazolium-Based Halide Ionic Liquids: Crystal Structures and Thermal Behavior, *Z. Krist.*, **2020**, *235*, 365-374. DOI: 10.1515/zkri-2020-0046. Special Issue 80th Birthday Prof. Dr. Ulrich Mueller
- 230.** M.K. Mishra, S.P. Kelley, V. Smetana, D.A. Dixon, A.S. McNeill, **A.-V. Mudring**, R.D. Rogers, Visualizing anionic nucleobases and base pairs using an ionic liquid strategy, *PNAS*, **2020**, *117*, 18224–18230. DOI: 10.1073/pnas.2008379117.
- 229.** S. Pakhira, N. S. Sangeetha, D. H. Ryan, V. Smetana, **A.-V. Mudring**, D.C. Johnston, Ferromagnetic Cluster-Glass Phase in $\text{Ca}(\text{Co}_{1-x}\text{Ir}_x)_2\text{-yAs}_2$ crystals, *Phys. Rev. B*, **2020**, *102*, 024410. DOI: 10.1103/PhysRevB.102.024410.
- 228.** J. Namanga, V. Smetana, N. Gerlitzki, **A.-V. Mudring**, Efficient and long lived green light emitting electrochemical cells, *Adv. Func. Mat.*, **2020**, *30*, 1909809 (12 pages). DOI: 10.1002/adfm.201909809. *Back cover*.
- 227.** M. Rhodehouse, V. Smetana, C. Celania, **A.-V. Mudring**, G. H. Meyer, Ternary polar intermetallics within the systems Pt/Sn/R (R = La-Sm): stannides or platinides?, *Inorg. Chem.*, **2020**, *59*, 7352-7359. DOI: 10.1021/acs.inorgchem.0c00884.
- 226.** S.-F. Tang, V. Smetana, M.K. Mishra, S.P. Kelley, O. Renier, R.D. Rogers, **A.-V. Mudring**, Forcing Dicyanamide Coordination to *f*-Elements by Dissolution in Dicyanamide-based Ionic Liquids, *Inorg. Chem.* **2020**, *59*, 7227-7237. DOI: 10.1021/acs.inorgchem.0c00667.
- 225.** S.P. Kelley, V. Smetana, S. D. Emerson, **A.-V. Mudring**, R.D. Rogers, Benchtop Access to Anhydrous Actinide N-donor Coordination Complexes using Ionic Liquids, *Chem. Commun.* **2020**, *56*, 4232-4235. DOI: 10.1039/C9CC09852F.
- 224.** S. P. Kelley, V. Smetana, J.S. Nuss, D. A. Dixon, M. Vasiliu, **A.-V. Mudring**, R. D. Rogers, Dehydration of $\text{UO}_2\text{Cl}_2 \cdot 3\text{H}_2\text{O}$ and $\text{Nd}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$ with a Soft Donor Ligand and Comparison of Their Interactions through X-ray Diffraction and Theoretical Investigation, *Inorg. Chem.*, **2020**, *59*, 2861-2869. DOI: 10.1021/acs.inorgchem.9b03228.
- 223.** V. Smetana, S. P. Kelley, **A.-V. Mudring**, R.D. Rogers, A fivefold UO_2^{2+} node is a path to dodecagonal quasicrystal approximants in coordination polymers, *Sci. Adv.* **2020**, *6*, eaay7685. DOI: 10.1126/sciadv.aay7685.
- 222.** X. Wang, M. Valldor, E. T. Spielberg, F.W. Heinemann, K. Meyer, **A.-V. Mudring**, Paramagnetic Iron-Containing Ionic Liquid Crystals, *Mol. Liq.* **2020**, *304*, 112583. DOI: 10.1016/j.molliq.2020.112583.
- 221.** V. Babizhetskyy, V. Levytskyy, V. Smetana, M. Wilk-Kozubek, O. Tsisar, L. Piskach, O. Parasyuk, **A.-V. Mudring**, New cation-disordered quaternary selenides $\text{Tl}_2\text{Ga}_2\text{TlSe}_6$ (*Tl* = Ge, Sn), *Z. Naturforsch. B*, **2020**, *75*, 135-142. DOI: 10.1515/znb-2019-0169. Special issue on occasion of Prof. Dr. Arndt Simon's 80th birthday.
- 220.** F. Guillou, D. Paudyal, Y. Mudryk, A. K. Pathak, V. Smetana, **A.-V. Mudring**, V. K. Pecharsky, Metamagnetic transition, magnetocaloric effect and electronic structure of the

rare-earth antiperovskite SnOEu₃, *JMMM*, **2020**, *501*, 166405. DOI: 10.1016/j.jmmm.2020.166405.

219. D. Prodius, K. Gandha, **A.-V. Mudring**, I. Nlebelim, Sustainable Urban Mining of Critical Elements from Magnet and Electronic Wastes, *ACS Sus. Chem. Eng.*, **2020**, *8*, 1455-1463. DOI: 10.1021/acssuschemeng.9b05741.

218. T. Alammar, I.Z. Hlova, S. Gupta, V.K. Pecharsky, **A.-V. Mudring**, Mechanochemical Synthesis, Characterization and Luminescent Properties of Lanthanide Benzene-1,4-Dicarboxylate Coordination Polymers (LnGd)(1,4-BDC)₃(H₂O)₄; Ln = Sm, Eu, Tb, *New J. Chem.*, **2020**, *44*, 1054-1062. DOI: 10.1039/C9NJ02583A.

217. V. Smetana, S. P. Kelley, H. M. Titi, X. Hou, S.-F. Tang, **A.-V. Mudring**, R. D. Rogers, Synthesis of Anhydrous Acetates for the Components of Nuclear Fuel Recycling in Dialkylimidazolium Acetate Ionic Liquids, *Inorg. Chem.* **2020**, *59*, 818-828. DOI: 10.1021/acs.inorgchem.9b03077.

216. S. P. Kelley, H. Pei, V. Smetana, **A.-V. Mudring**, R. D. Rogers, Structural Consequences of Halogen Bonding in Dialkylimidazolium: A New Design Strategy for Ionic Liquids Illustrated with the I₂ Co-Crystal and Acetonitrile Solvate of 1,3-Dimethylimidazolium Iodide, *Cryst. Growth Des.*, **2020**, *20*, 498-505. DOI: 10.1021/acs.cgd.9b01454.

215. O. Renier, G. Bousrez, K. Stappert, M. Wilk-Kozubek, B. Adranno, H. Pei, E. T. Spielberg, V. Smetana, **A.-V. Mudring**, Photoisomerization and Mesophase Formation in Azo-Ionic Liquids, *Crystal Growth & Des.*, **2020**, *20*, 214-225. DOI: 10.1021/acs.cgd.9b01018.

2019

214. G. Tessitore, **A.-V. Mudring**, K. Krämer, Upconversion luminescence in sub-10 nm β-NaGdF₄: Yb³⁺, Er³⁺ nanoparticles: An improved synthesis in anhydrous ionic liquids, *RSC Advances*, **2019**, *9*, 34784-34792. DOI: 10.1039/C9RA05950D.

213. A. Provino, V. Smetana, T. Hackett, D. Paudyal, M. Kashyap, C. Bernini, A. Bhattacharyya, S. Dhar, M. Pani, F. Gatti, **A.-V. Mudring**, P. Manfrinetti, Stability, crystal-chemistry and magnetism of U_{2+x}Ni_{21-x}B₆ and Nb_{3-y}Ni_{20+y}B₆ and the role of U in the formation of the quaternary U_{2-z}Nb_zNi₂₁B₆ and U_δNb_{3-δ}Ni₂₀B₆ systems, *Inorg. Chem.*, **2019**, *58*, 15045-15059. DOI: 10.1021/acs.inorgchem.9b01440.

212. N. S. Sangeetha, L.-L. Wang, A.V. Smirnov, V. Smetana, **A.-V. Mudring**, D.D Johnson, M.A. Tanatar, R. Prozorov, D.C. Johnston, Non-Fermi-liquid behaviors associated with a magnetic quantum-critical point in Sr(Co_{1-x}Ni_{x})₂As₂ single crystals, *Phys. Rev. B*, **2019**, *100*, 094447.

211. N.S. Sangeetha, V Smetana, **A.-V Mudring**, DC Johnston, Helical Antiferromagnetic Ordering in EuNi_{1.95}As₂, *Phys. Rev. B*, **2019**, *100*, 094438.

210. G. Wang, M. Valldor, S. Siebeneichler, M. Wilk-Kozubek, V. Smetana, **A.-V. Mudring**, Ionothermal synthesis, structures and magnetism of three new open framework iron halide-phosphates, *Inorg. Chem.* **2019**, *58*, 13203-13212. DOI: 10.1021/acs.inorgchem.9b02028.

209. D. Chand, M. Wilk-Kozubek, V. Smetana, **A.-V. Mudring**, An alternative to the popular imidazolium ionic liquids: 1,2,4-Triazolium ionic liquids with enhanced thermal and chemical stability, *ACS Sus. Chem. Eng.*, **2019**, *7*, 15995-16006. DOI: 10.1021/acssuschemeng.9b02437.

208. G. Wang, M. Valldor, K.V. Dorn, M. Wilk-Kozubek, V. Smetana, **A.-V. Mudring**, Ionothermal Synthesis Enables Access to 3D Open Framework Manganese Phosphates Containing Extra-large 18-Ring Channels with Stunning Optical and Magnetic Properties, *Chem. Mat.*, **2019**, *31*, 7329-7339. DOI: 10.1021/acs.chemmater.9b01935

207. S.-F. Tang, **A.-V. Mudring**, Design of highly luminescent ionic liquids based on lanthanide saccharianates, *Inorg. Chem.*, **2019**, *58*, 11569-11578. DOI: 10.1021/acs.inorgchem.9b01411.

206. H. Nasser Abdelhamid, M. Wilk-Kozubek, A. M. El-Zohry, A. Valiente, A. Bermejo-Gomez, B. Martín-Matute, **A.-V. Mudring**, X. Zou, Luminescence Properties for of a Family of Highly Stable Lanthanide Metal-Organic Frameworks, *Micro. Meso. Mat.*, **2019**, *279*, 400-406. DOI: 10.1016/j.micromeso.2019.01.024.

205. Y. Mudryk, V. Smetana, V. Pecharsky, **A.-V. Mudring**, J. Liu, Anomalous effects of Sc substitution and processing on magnetism and structure of $(\text{Gd}_{1-x}\text{Sc}_x)_5\text{Ge}_4$, *J. Magnet. Magnet. Mat.* **2019**, *474*, 482-492. DOI: 10.1016/j.jmmm.2018.11.004.

2018

204. M. Rhodehouse, T. Bell, V. Smetana, **A.-V. Mudring**, G.H. Meyer, An Obscured or Nonexistent Binary Intermetallic, $\text{Co}_7\text{Pr}_{17}$, its Existent Neighbor Co_2Pr_5 , and Two New Ternaries in the System $\text{Co}/\text{Sn}/\text{Pr}$, $\text{CoSn}_3\text{Pr}_{1-x}$ and $\text{Co}_{2-x}\text{Sn}_7\text{Pr}_3$, *Cryst. Growth & Des.* **2018**, *18*, 6273-6283. DOI: 10.1021/acs.cgd.8b01141

203. **A.-V. Mudring**, E. Spielberg, B. Mallick, J. Schaumann, P. Campbell, K. Szeto, Sodium Salicylate: An in-depth thermal and photophysical study, *Chem. Eur. J.*, **2018**, *24*, 15638-15648. DOI: 10.1002/chem.201803045.

202. T. Bell, C. Celia, V. Smetana, **A.-V. Mudring**, G.H. Meyer, Tb_3Pd_2 , Er_3Pd_2 and $\text{Er}_6\text{Co}_{5-x}$: Structural Variations and Bonding in Rare Earth Richer Binary Intermetallics, *Acta Cryst. C*, **2018**, *C74*, 991-996. DOI: 10.1107/S2053229618010549.

201. M. Rhodehouse, T. Bell, V. Smetana **A.-V. Mudring**, G.H. Meyer, From the non-existent polar intermetallic Pt_3Pr_4 via $\text{Pt}_{2-x}\text{Pr}_3$ to novel $\text{Pt}/\text{Sn}/\text{Pr}$ ternaries, *Inorg. Chem*, **2018**, *57*, 9949-9961. DOI: 10.1021/acs.inorgchem.8b01121.

200. T. Alammar, I.Z. Hlova, S. Gupta, V.K. Pecharsky, **A.-V. Mudring**, Luminescent Properties of Mechanochemically Synthesized Rare-Earth Containing MIL-78 MOF, *Dalton Trans.* **2018**, *47*, 7594-7601. DOI: 10.1039/C7DT04771A.

199. D. Prodius, M. Wilk-Kozubek, **A.-V. Mudring**, Synthesis, structural characterization and luminescent properties of 1-carboxymethyl-3-ethylimidazolium chloride, *Acta Cryst. C*, **2018**, *74*, 653-658. DOI: 10.1107/S2053229618005272.

198. N. S. Sangeetha, V.K. Anand, E. Cuervo-Reyes, V. Smetana, **A.-V. Mudring**, D. C. Johnston, Enhanced moments of Eu in single crystals of the metallic helical antiferromagnet $\text{EuCo}_{\{2-y\}}\text{As}_2$, *Phys. Rev. B*. **2018**, *97*, 144403. DOI: <https://doi.org/10.1103/PhysRevB.97.144403>. *Editor's suggestion*.

197. V. Smetana, Y. Mudryk, V. K. Pecharsky, **A.-V. Mudring**, Controlling Magnetism via Transition Metal Exchange in the Series of Intermetallics $\text{Eu}(T1,T2)_5\text{In}$ ($T = \text{Cu, Ag, Au}$), *J. Mat. Chem. C* **2018**, *6*, 1353-1362. DOI: 10.1039/C7TC04964A. COVER IMAGE

196. C. Celania, V. Smetana, A. Provino, P. Manfrinetti, **A.-V. Mudring**, $R_{14}(\text{Au}, M)_{51}$ ($R = \text{Y, La-Nd, Sm-Tb, Ho, Er, Yb, Lu}$; $M = \text{Al, Ga, Ge, In, Sn, Sb, Bi}$): Stability Ranges and Site Preference in the $\text{Gd}_{14}\text{Ag}_{51}$ Structure Type, *Cryst. Growth & Des.* **2018**, *18*, 993-1001. DOI: 10.1021/acs.cgd.7b01469

195. J.E. Namanga, N. Gerlitzki, V. Smetana, **A.-V. Mudring**, Optimizing green light emitting electrochemical cells: Stability improvement without compromising the efficiency, *ACS Appl. Mat. Interf.* **2018**, *10*, 11026–11036. DOI: 10.1021/acsami.7b18159.

194. C. Celania, V. Smetana, **A.-V. Mudring**, Bringing Order to Large Scale Disordered Complex Metal Alloys: $\text{Gd}_2\text{Au}_{15-x}\text{Sb}_x$ and $\text{BaAu}_x\text{Ga}_{12-x}$, *CrystEngComm* **2018**, *20*, 348-355 DOI: 10.1039/C7CE01865G.

193. G. Tessitore, **A.-V. Mudring**, K. W. Krämer, Luminescence and energy transfer in $\beta\text{-NaGdF}_4\text{:Eu}^{3+},\text{Er}^{3+}$ nanocrystalline samples from a room temperature synthesis, *New J. Chem.* **2018**, *42*, 237-245. DOI: 10.1039/C7NJ03242K.

192. N. S. Sangeetha, V. Smetana, **A.-V. Mudring**, D. C. Johnston, Antiferromagnetism in semiconducting SrMn_2Sb_2 and BaMn_2Sb_2 single crystals, *Phys. Rev. B*. **2018**, *97*, 014402. <https://journals.aps.org/prb/abstract/10.1103/PhysRevB.97.014402>

2017

191. N. S. Sangeetha, V. Smetana, **A.-V. Mudring**, D. C. Johnston, Anomalous Composition-Induced Crossover in the Magnetic Properties of the Itinerant-Electron Antiferromagnet $\text{Ca}_{1-x}\text{Sr}_x\text{Co}_{2-y}\text{As}_2$, *Phys. Rev. Lett.* **2017**, *119*, 257203. DOI: 10.1103/PhysRevLett.119.257203

190. M. Di Marcantonio, J. E. Namanga, N. Gerlitzki, F. Vollkommer, **A.-V. Mudring**, G. Bacher, E. Nannen, Bright and Stable Greenish Hybrid Light Emitting Electrochemical Cells, *J. Mat. Chem. C*, **2017**, *5*, 12062-12068. DOI: 10.1039/C7TC02976D.

189. C. Celania, V. Smetana, **A.-V. Mudring**, Crystal Structures and new perspectives on Y_3Au_4 and $\text{Y}_{15}\text{Au}_{51}$, *Acta Cryst. C* **2017**, *C73*, 692-696, DOI: 10.1107/S2053229617011068.

- 188.** M. Li, V. Smetana, T. Alammar, Y. Mudryk, V. Pecharsky, **A.-V. Mudring**, Borophosphates with Helical Chains, *Inorg. Chem.* **2017**, *56*, 11104-11112. DOI: 10.1021/acs.inorgchem.7b01423.
- 187.** C. Celania, V. Smetana, A. Provino, P. Manfrinetti, V. Pecharsky, **A.-V. Mudring**, R_3Au_9Pn ($R = Y, Gd-TM$; $Pn = Sb, Bi$): A Link between $Cu_{10}Sn_3$ and $Gd_{14}Ag_{51}$, *Inorg. Chem.* **2017**, *56*, 7247-7256, DOI: 10.1021/acs.inorgchem.7b00898.
- 186.** T. Alammar, I. Slowing, J. Anderegg, **A.-V. Mudring**, Ionic Liquid-Assisted Microwave Synthesis of Solid Solutions of Perovskite $Sr_{1-x}Ba_xSnO_3$ Nanocrystals for Photocatalytic Applications, *ChemSusChem* **2017**, *10*, 3387-3401. DOI: 10.1002/cssc.201700615.
Back cover.
- 185.** T. Alammar, I. Hamm, V. Grasmik, M. Wark, **A.-V. Mudring**, Microwave-Assisted Synthesis of Perovskite $SrSnO_3$ Nanocrystals in Ionic Liquids for Photocatalytic Applications, *Inorg. Chem.*, **2017**, *56*, 6920-6932. DOI: 10.1021/acs.inorgchem.7b00279.
- 184.** P. Ghosh, R.K. Sharma, Y.N. Chouryal, **A.-V. Mudring**: Size of the rare-earth ions: a key factor in phase tuning and morphology control of binary and ternary rare-earth fluoride materials, *RSC Adv.* **2017**, *7*, 33467-33476. DOI: 10.1039/c7ra06741k.
- 183.** G. Tessitore, **A.-V. Mudring**, K. W. Krämer, Room temperature synthesis of β - $NaGdF_4:RE^{3+}$ ($RE=Eu, Er$) nanocrystallites and their luminescence, *J. Lumin.* **2017**, *189*, 91-98. DOI: 10.1016/j.jlumin.2017.03.021.
- 182.** J.E. Namanga, N. Gerlitzki, B. Mallick, **A.-V. Mudring**, Long term stable deep red light-emitting electrochemical cell based on an emissive, rigid cationic Ir(III) complex, *J. Mat. Chem. C* **2017**, *5*, 3049-3055, DOI: 10.1039/C6TC04547B.
- 181.** J.E. Namanga, N. Gerlitzki, V. Smetana, **A.-V. Mudring**, Scrutinizing design principles towards efficient, long-term stable green light emitting light emitting electrochemical cells, *Adv. Func. Mat.* **2017**, *27*, 1605588 (8 pages) DOI: 10.1002/adfm.201605588.
- 180.** I. Bigun, S. Steinberg, V. Smetana, Y. Mudryk, Y. Kalychak, L. Havela, V.K. Pecharsky, **A.-V. Mudring**, Magnetocaloric Behavior in Ternary Europium Indides EuT_5In : Probing the Design Capability of First-Principles-Based Methods on the Multifaceted Magnetic Materials, *Chem. Mat.* **2017**, *29*, 2599-2614. DOI: 10.1021/acs.chemmater.6b04782.
- 179.** I. Bigun, V. Smetana, Y. Mudryk, I. Hlova, M. Dzevenko, L. Havela, Y. Kalychak, V. Pecharsky, **A.-V. Mudring**, $EuNi_5InH_{1.5-x}$ ($x = 0-1.5$): Hydrogen Induced Structural and Magnetic Transitions, *J. Chem. Mat. Chem. C* **2017**, *5*, 2994-3006. DOI: 10.1039/C7TC00121E.
- 178.** J. Schaumann, M. Loor, D. Ünal, **A.-V. Mudring**, S. Heimann, U. Hagemann, S. Schulz, F. Maculewicz, G. Schierning, Improving the zT value of thermoelectrics by nanostructuring: Tuning the nanoparticle morphology of Sb_2Te_3 by ionic liquids, *Dalton Trans.* **2017**, *46*, 656-668. DOI: 10.1039/c6dt04323b.
Inside Front Cover.

177. V. Smetana, S. Steinberg, **A.-V. Mudring**, Layered Structures and Disordered Polyanionic Nets in the Cation-Poor Polar Intermetallics CsAu_{1.4}Ga_{2.8} and CsAu₂Ga_{2.6}, *Crystal Growth & Des.* **2017**, *17*, 693-700. DOI: 10.1021/acs.cgd.6b01536.

176. D. Prodius, V. Smetana, S. Steinberg, M. Wilk-Kozubek, Y. Mudryk, V. K. Pecharsky, **A.-V. Mudring**, Breaking the paradigm: record quindecim charged magnetic ionic liquids, *Materials Horizon* **2017**, *4*, 217-222. DOI: 10.1039/C6MH00468G. *Inside Front Cover.*

175. J. Cybinska, M. Guzik, C. Lorbeer, E. Zych, Y. Guyot, G. Boulon, **A.-V. Mudring**, Design of LaPO₄: Nd³⁺ materials by using ionic liquids, *Opt. Mat.* **2017**, *63*, 76-87. DOI: 10.1016/j.optmat.2016.09.025.

174. J. Cybinska, C. Lorbeer, E. Zych, **A.-V. Mudring**, Ionic liquid supported synthesis of nano-sized rare earth doped phosphates, *J. Lumin.* **2017**, *63*, 76-87. DOI: 10.1016/j.jlumin.2017.02.033.

173. S. Anghel, S. Golbert, A. Meijerink, **A.-V. Mudring**, Divalent Europium doped CaF₂ and BaF₂ nanocrystals from ionic liquids, *J. Lumin.* **2017**, *189*, 2-8. DOI: 10.1016/j.jlumin.2016.10.007.

2016

172. V. Smetana, **A.-V. Mudring**, Cesium Platinide Hydride Cs₉Pt₄H ≡ 4Cs₂Pt·CsH: An Intermetallic Double Salt Featuring Metal Anions, *Angew. Chem. Int. Ed.* **2016**, *47*, 14838-14841. DOI:10.1002/anie.201606682
Cover Image: DOI: 10.1002/anie.201609985

171. A. Provino, N.S. Sangeetha, S.K. Dhar, V. Smetana, K.A. Gschneidner Jr., V.K. Pecharsky, P. Manfrinetti, **A.-V. Mudring**, New R₃Pd₅ Compounds (R = Sc, Y, Gd–Lu): Formation and Stability, Crystal Structure, and Antiferromagnetism, *Cryst. Growth Des.* **2016**, *16*, 6001–6015. DOI: 10.1021/acs.cgd.6b01045

170. A. Provino, S. Steinberg, V. Smetana, U. Paramanik, P. Manfrinetti, S.K. Dhar, **A.-V. Mudring**, Gold in the Layered Structures of R₃Au₇Sn₃: From Relativity to Versatility, *Crystal Growth & Des.* **2016**, *16*, 5657-5668. DOI: 10.1021/acs.cgd.6b00478

169. G. Wang, **A.-V. Mudring**, The missing hydrate AlF₃·6H₂O = [Al(H₂O)₆]F₃: Ionothermal synthesis, crystal structure and characterization of aluminum fluoride Hexahydrate, *Solid State Sci.* **2016**, *61*, 58-62. DOI: 10.1016/j.solidstatesciences.2016.09.007

168. A. Provino, V. Smetana, D. Paudyal, K.A. Gschneidner Jr, A.-V. Mudring, V.K. Pecharsky, P. Manfrinetti, M. Putti, Gd₃Ni₂ and Gd₃Co_xNi_{2-x}: magnetism and unexpected Co/Ni crystallographic ordering, *J. Mat. Chem. C*, **2016**, *4*, 6078-6089. DOI: 10.1039/C6TC01035K

167. P. Ghosh, **A.-V. Mudring**, Phase selective synthesis of quantum cutting nanophosphors and the observation of a spontaneous room temperature phase transition, *Nanoscale*, **2016**, *8*, 8160-8169. DOI: 10.1039/c6nr00172f.

166. J. Cybińska, C. Lorbeer, **A.-V. Mudring**, Ionic liquid assisted microwave synthesis route towards color-tunable luminescence of lanthanide- doped BiPO₄, *J. Luminescence*, **2016**, 169, 541-647. DOI:10.1016/j.jlumin.2015.06.051.

165. T. Alammar, J. Cybinska, P.S. Campbell, **A.-V. Mudring**, Sonochemical Synthesis of Highly Luminescent Ln₂O₃:Eu³⁺ (Gd, Y, La) Nanocrystals, *J. Luminescence* **2016**, 169, 587-593. DOI:10.1016/j.jlumin.2015.05.004.

164. J. Cybińska, M. Wozniak, **A.-V. Mudring**, E. Zych, Controllable synthesis of nanoscale YPO₄:Eu in an ionic liquid, *J. Luminescence*, **2016**, 169, 868-873. DOI:10.1016/j.jlumin.2015.07.008.

2015

163. **A.-V. Mudring**, Elucidating the structure of ionic liquids by X-ray diffraction – New Opportunities for Materials Design, Transactions of the American Crystallographic Society, Crystallography for Sustainability, **2015**, 45, 46-57, <http://www.amercrystalassn.org/documents/2015%20Transactions/Mudring.pdf>

162. V. Smetana, S. Steinberg, Y. Mudryk, V. Pecharsky, G.J. Miller, **A.-V. Mudring**, Cation-Poor Complex Metallic Alloys in Ba(Eu)-Au-Al(Ga) Systems: identifying the Keys that Control Structural Arrangements and Atom Distribution at the Atomic Level, *Inorg. Chem.* **2015**, 54, 10296-10308. DOI: 10.1021/acs.inorgchem.5b01633.

161. K. Stappert, G. Lipinski, G. Kopiec, E.T. Spielberg, **A.-V. Mudring**, Mesophase stabilization in ionic liquid crystals through pairing equally shaped mesogenic cations and anions, *Crystal Growth Des.* **2015**, 15, 5388-5396. DOI:10.1021/acs.cgd.5b01024.

160. M. Ivanova, S. Kareth, E.T. Spielberg, **A.-V. Mudring**, M. Petermann, Silica ionogels synthesized with imidazolium based ionic liquids in presence of supercritical CO₂, *J. Supercritical Fluids* **2015**, 105, 60-65. DOI:10.1016/j.supflu.2015.01.014.

159. S. Steinberg, N. Card, **A.-V. Mudring**, From the Ternary Eu(Au/In)₂ and EuAu₄(Au/In)₂ with Remarkable Au/In Colorings to a New Structure Type: The Gold-rich Eu₅Au₁₆(Au,In)₆ Structure, *Inorg. Chem.* **2015**, 54, 8187-8196. DOI: 10.1021/acs.inorgchem.5b00257.

158. K. Stappert, J. Muthmann, E.T. Spielberg, **A.-V. Mudring**, Azobenzene-Based Organic Salts with Ionic Liquid and Liquid Crystalline Properties, *Crystal Growth Des.* **2015**, 15, 4701-4712. DOI:10.1021/acs.cgd.5b01023.

157. S. Heimann, St. Schulz, J. Schaumann, **A.-V. Mudring**, J. Stoetzel, F. Maculewicz, G. Schierning, Record figure of merit values of highly stoichiometric Sb₂Te₃ porous bulk synthesized from tailor-made molecular precursors in ionic liquids, *J. Mat. Chem. C* **2015**, 3, 10375-10380. DOI:10.1039/c5tc01248a.

156. A. Provino, S. Steinberg, V. Smetana, R. Kulkarni, S.K. Dhar, P. Manfrinetti, **A.-V. Mudring**, The Polar Intermetallics Y₃Au₇Sn₃ and Gd₃Au₇Sn₃: Novel Au@Au₆ Clusters,

Remarkable Physical Properties and Chemical Bonding, *J. Mat. Chem. C* **2015**, 3, 8311-8321. DOI:10.1039/C5TC00884K. Cover Image.

155. V. Smetana, S. Steinberg, N. Card **A.-V. Mudring**, G. Miller, Crystal Structure and Bonding in BaAu_5Ga_2 and $\text{AeAu}_{4+x}\text{Ga}_{3-x}$ (Ae = Ba and Eu): Hexagonal Diamond-Type Au Frameworks and Remarkable Cation/Anion Partitioning in the Ae-Au-Ga Systems, *Inorg. Chem.* **2015**, 54, 1010-1018. DOI:10.1021/ic502402y.

154. K. Stappert, D. Ünal, B. Mallick, **A.-V. Mudring**, The influence of the counter anion on the ability of 1-dodecyl-3-methyltriazolium ionic liquids to form mesophases, *Cryst. Growth Des.* **2015**, 15, 752-758. DOI:10.1021/cg501564j.

153. K. Richter, C. Lorbeer, **A.-V. Mudring**, A novel approach to optically active ion doped luminescent materials via electron beam evaporation into ionic liquids, *Chem. Commun.* **2015**, 51, 114-117. DOI: 10.1039/C4CC05817H.

152. K. Stappert, **A.-V. Mudring**, Triazolium Based Ionic Liquid Crystals: Effect of Asymmetric Substitution, *RSC Advances* **2015**, 5, 16886-16896. DOI:10.1039/C4RA14961K.

151. T. Alammar, Kit Chow, **A.-V. Mudring**, Energy efficient of microwave synthesis of mesoporous $\text{Ce}_{0.5}\text{M}_{0.5}\text{O}_2$ (Ti, Zr, Hf) nanoparticles for low temperature CO Oxidation in an ionic liquid – a comparative study, *New J. Chem.*, **2015**, 39, 1339 - 1347. DOI: 10.1039/C4NJ00951G.

150. T. Alammar, H. Noei, Y. Wang, W. Grünert, **A.-V. Mudring**, Ionic Liquid-Assisted Sonochemical Preparation of CeO_2 Nanoparticles for CO Oxidation, *ACS Sus. Chem. Eng.* **2015**, 3, 42-54. DOI:10.1021/sc500387k.

149. T. Alammar, I. Hamm, M. Wark, **A.-V. Mudring**, Low Temperature Route to Metal Titanate Perovskite Nanoparticles for Photocatalytic Hydrogen Formation, *Appl. Catalysis B* **2015**, 178, 20-28. DOI:10.1016/j.apcatb.2014.11.010.

2014

148. C. Lorbeer, F. Behrends, J. Cybinska, H. Eckert, **A.-V. Mudring**, Charge compensation in RE^{3+} (RE=Eu, Gd) and M^+ (M=Li, Na, K) co-doped alkaline earth nanofluorides obtained by microwave reaction with reactive ionic liquids leading to improved optical properties, *J. Mat. Chem. C* **2014**, 2, 9439-9450. DOI: 10.1039/C4TC01214C.

147. C. Lorbeer, **A.-V. Mudring**, Quantum cutting in nanoparticles producing two green photons, *Chem. Commun.* **2014**, 50, 13282-13284. DOI: 10.1039/C4CC04400B.

146. A.-M. Hanu, S. Kareth, A. Puls, M. Ivanova, B. Mallick, **A.-V. Mudring**, M. Petermann, Marcus, Influence of scCO_2 , Ultrasound, and Quaternary Ammonium Salt on Gelation Time and Structural Characteristics of Silica, *Chemical Engineering & Technology* **2014**, 37(11), 1873-1878. DOI:10.1002/ceat.201300722.

145. G. Wang, M. Valldor, B. Mallick, **A.-V. Mudring**, Ionothermal Synthesis of The First Open-Framework Metal Fluoro-phosphates with a Kagomé Lattice Network exhibiting

Canted Anti-Ferromagnetism, *J. Mat. Chem. C* **2014**, *2*, 7417-7427. DOI: 10.1039/C4TC00290C.

144. S.F. Tang, C. Lorbeer, X. Wang, P. Ghosh, **A.-V. Mudring**, Highly luminescent molten salts containing well shielded lanthanide centered complex anions and bulky imidazolium counteranions, *Inorg. Chem.* **2014**, *53*, 9027-99035. DOI:10.1021/ic500979p.

143. E.T. Spielberg, E. Edengeißer, B. Mallick, M. Havenith, **A.-V. Mudring**: (C₁C₄mpyr)[Cu(SCN)₂]: Coordination Polymer and Ionic Liquid, *Chem. Eur. J.*, **2014**, *20*, 5338-5345. DOI:10.1002/chem.201302777.

142. D. Yaprak, E.T. Spielberg, T. Bäcker, M. Richter, B. Mallick, A. Klein, **A.-V. Mudring**, A roadmap to uranium ionic liquids: anti-crystal engineering, *Chem. Eur. J.* **2014**, *20*, 6482-6493. DOI:10.1002/chem.201303333.

141. P. Campbell, M. Yang, J. Cybinska, D. Pitz, **A.-V. Mudring**, Highly luminescent and colour-tuneable salicylate ionic liquids, *Chem. Eur. J.*, **2014**, *20*, 4704-4712. DOI:10.1002/chem.201301363.

140. A. Babai, G. Kopiec, A. Lackmann, B. Mallick, S. Pitula, S.-F. Tang, **A.-V. Mudring**, Eu³⁺ a dual probe for the determination of IL anion donor power: A combined luminescence and spectroscopic and electrochemical approach, *J. Mol. Liq.* **2014**, *92*, 191-198. DOI:10.1016/j.molliq.2014.03.005.

139. D. König, K. Richter, A. Siegel, **A.-V. Mudring**, A. Ludwig, High-throughput fabrication of binary alloy nanoparticle libraries by combinatorial sputtering in ionic liquids, *Adv. Func. Mat.*, **2014**, *24*, 2049-2056. DOI:10.1002/adfm.201303140.

138. M. Yang, B. Mallick, **A.-V. Mudring**, A systematic study on the mesomorphic behavior of asymmetrical 1,3-dialkylimidazolium bromides, *Cryst. Growth Des.* **2014**, *14*, 1561-1571. DOI:10.1021/cg401396n.

137. M. Yang, P. Campbell, C. Santini, **A.-V. Mudring**, Small nickel nanoparticle arrays from long chain imidazolium liquids, *Nanoscale*, **2014**, *6*, 3367-3375. DOI:10.1039/c3nr05048c.

136. G. Wang, M. Valldor, E. Spielberg, **A.-V. Mudring**, Ionothermal Synthesis, Crystal Structure, and Magnetic Study of Co₂PO₄OH Isostructural with Caminite, *Inorg. Chem.* **2014**, *53*, 3072-3077. DOI:10.1021/ic4029904.

135. K. Stappert, D. Ünal, B. Mallick, **A.-V. Mudring**, New Triazolium Based Ionic Liquid Crystals, *J. Mat. Chem. C* **2014**, *2*, 7976-7986. DOI: 10.1039/C3TC31366B.

134. C. Lorbeer, J. Cybinska, **A.-V. Mudring**, Reaching Quantum Yields >> 100% in nanomaterials, *J. Mat. Chem. C*, **2014**, *2*, 1862-1868. DOI: 10.1039/C3TC31662A.

133. M. Yang, K. Stappert, **A.-V. Mudring**, Bis-cationic ionic liquids, *J. Mat. Chem. C*, **2014**, *2*, 458-473. DOI: 10.1039/C3TC31368A.

- 132.** I.S. Helgadottir, P.P. Arquillière, P. Bréa, C.C. Santini, P.-H. Haumesser, K. Richter, A.-V. Mudring, M. Aouine: Synthesis of bimetallic nanoparticles in ionic liquids: Chemical routes vs physical vapor deposition, *Microelectronic Engineering*, **2013**, *107*, 229-232. DOI: 10.1016/j.mee.2012.09.015.
- 131.** A. Metlen, B. Mallick, R.W. Murphy, **A.-V. Mudring**, R.D. Rogers, Phosphonium Chloromercurate Room Temperature Ionic Liquids of Variable Composition, *Inorg. Chem.*, **2013**, *52*, 13997-14009. DOI: 10.1021/ic401676r.
- 130.** S. Schulz, S. Heimann, K. Kaiser, W. Assenmacher, T. Brüggemann, B. Mallick, **A.-V. Mudring**, Solution based synthesis of GeTe octahedra at low temperatures, *Inorg. Chem.* **2013**, *52*, 14326-14333. DOI: 10.1021/ic402266j.
- 129.** DOI: 10.1002/cssc.201200915.
- 128.** C. Walbaum, M. Richter, U. Sachs, I. Pantenburg, S. Riedel, **A.-V. Mudring**, G. Meyer, Iodine-iodine bonding makes tetra(diiodide)chloride, $[\text{Cl}(\text{I}_2)_4]^-$, planar, *Angew. Chem. Int. Ed.*, **2013**, *52*, 12732-12735. DOI: 10.1002/anie.201305412.
- 127.** T. Alammar, H. Noei, Y. Wang, **A.-V. Mudring**, Mild yet phase-selective preparation of TiO_2 nanoparticles from ionic liquids – a critical study, *Nanoscale*, **2013**, *5*, 8045-8055. DOI: 10.1039/C3NR00824J.
- 126.** M. Yang, B. Mallick, **A.-V. Mudring**, On the mesophase formation of 1,3-dialkylimidazolium ionic liquids, *Cryst. Growth Des.* **2013**, *13*, 3068-3077. DOI: 10.1021/cg4004593.
- 125.** P. S. Campbell, C. Lorbeer, J. Cybinska, **A.-V. Mudring**, One-Pot Synthesis of Luminescent Polymer-Nanoparticle Composites from Task-Specific Ionic Liquids, *Adv. Funct. Mater.*, **2013**, *23*, 2924-2931. DOI: 10.1002/adfm.201202472.
- 124.** C. Lorbeer, A.-V. Mudring, White Light Emitting Single Phosphors via Triply Doped LaF_3 Nanoparticles, *J. Phys. Chem. C*, **2013**, 12229-12238. DOI: 10.1021/jp312411f.
- 123.** S. Laufer, S. Strobel, T. Schleid, J. Cybinska, **A.-V. Mudring**, I. Hartenbach, Yttrium(III) oxomolybdates(VI) as potential host materials for luminescence applications: an investigation of Eu^{3+} -doped $\text{Y}_2[\text{MoO}_4]_3$ and $\text{Y}_2[\text{MoO}_4]_2[\text{Mo}_2\text{O}_7]$, *N. J. Chem.* **2013**, *37*, 1919-1926. DOI: 10.1039/C3NJ00166K.
- 122.** Q. Ju, **A.-V. Mudring**, Phase and Morphology Selective Interface-Assisted Synthesis of Highly Luminescent Ln^{3+} -doped NaGdF_4 Nanorods, *RSC Advances*, **2013**, *3*, 8172-8175. DOI: 10.1039/C3RA40755A.
- 121.** Q. Ju, P.S. Campbell, **A.-V. Mudring**: Interface-assisted ionothermal synthesis, phase tuning, surface modification and bioapplication of Ln^{3+} -doped NaGdF_4 nanocrystals, *J. Mater. Chem. B*, **2013**, *1*, 179-185. DOI: 10.1039/C2TB00052K.

120. C. Rustige, M. Brühmann, S. Steinberg, E. Meyer, K. Daub, S. Zimmermann, M. Wolberg, **A.-V. Mudring**, G. Meyer: The Prolific $\{ZR_6\}X_{12}R$ and $\{ZR_6\}X_{10}$ Structure Types with Isolated Endohedrally Stabilized (Z) Rare-Earth Metal (R) Cluster Halide (X) Complexes, *Z. anorg. allg. Chem.*, **2012**, 638, 1922–1931. DOI: 10.1002/zaac.201200209.

119. A.S.R. Chesman, M. Yang, N.D. Spiccia, G.B. Deacon, S.R. Batten, **A.-V. Mudring**: Lanthanoid-Based Ionic Liquids Incorporating the Dicyanonitrosomethanide Anion, *Chem. Eur. J.*, **2012**, 18, 9580–9589. DOI: 10.1002/chem.201103379.

118. G. Wang, M. Valldor, C. Lorbeer, **A.-V. Mudring**: Ionothermal Synthesis of the First Luminescent Open-Framework Manganese Borophosphate with Switchable Magnetic Properties, *Eur. J. Inorg. Chem.*, **2012**, 18, 3032-3038. DOI: 10.1002/ejic.201200110.

117. S. Schlamp, J. Schulten, R. Betz, T. Bauch, **A.-V. Mudring**, B. Weber: Synthesis of Anionic Spin Crossover Complexes with Schiff Base like Ligands, *Z. anorg. allg. Chem.*, **2012**, 638, 1093–1102. DOI: 10.1002/zaac.201200162.

116. C. Seidel, C. Lorbeer, J. Cybińska, **A.-V. Mudring**, U. Ruschewitz: Lanthanide Coordination Polymers with Tetrafluoroterephthalate as a Bridging Ligand: Thermal and Optical Properties, *Inorg. Chem.*, **2012**, 51 (8), 4679-4688. DOI: 10.1021/ic202655d.

115. T. Bäcker, **A.-V. Mudring**: Betaine Chloride-Betaine Tetrachloridoferrate(III)—An Ionic Liquid Related Crystal Structure Governed by the Pearson Concept, *Crystals*, **2012**, 2, 110-117. DOI: 10.3390/cryst2010110.

114. A.S.R. Chesman, M. Yang, B. Mallick, T.M. Ross, I.A. Gass, G.B. Deacon, S.R. Batten, **A.-V. Mudring**: Melting point suppression in new lanthanoid(III) ionic liquids by trapping of kinetic polymorphs: an *in situ* synchrotron powder diffraction study, *Chem. Commun.*, **2012**, 48, 124-126. DOI: 10.1039/C1CC14744G.

113. B. Mallick, A. Melten, M. Nieuwenhuyzen, R.-D. Rogers, **A.-V. Mudring**: Mercuric Ionic Liquids: $[C_n\text{mim}][\text{HgX}_3]$, Where $n = 3, 4$ and $X = \text{Cl}, \text{Br}$, *Inorg. Chem.*, **2012**, 51 (1), 193-200. DOI: 10.1021/ic201415d.

112. T. Alammar, O. Shekhah, J. Wohlgemuth, **A.-V. Mudring**: Ultrasound-assisted synthesis of mesoporous $\beta\text{-Ni}(\text{OH})_2$ and NiO-nano-sheets using ionic liquids, *J. Mater. Chem.*, **2012**, 22, 18252-18260. DOI: 10.1039/C2JM32849F.

111. C. Lorbeer, J. Cybinska, **A.-V. Mudring**: Phosphate protected fluoride nano-phosphors, *J. Mater. Chem.*, **2012**, 22, 9505-9508. DOI: 10.1039/C2JM15471D.

2011

110. T. Alammar, **A.-V. Mudring**: Sonochemical Synthesis of 0D, 1D, and 2D Zinc Oxide Nanostructures in Ionic Liquids and Their Photocatalytic Activity, *ChemSusChem*, **2011**, 12, 1796-1804. DOI:10.1002/cssc.201100263.

109. C. Lorbeer, J. Cybinska, E. Zych, **A.-V. Mudring**: Highly doped alkaline earth nanofluorides synthesized from ionic liquids, *Opt. Mat.* **2011**, 21, 3207. DOI: 10.1016/j.optmat.2011.04.019.

108. C. Fiolka, M. Richter, I. Pantenburg, **A.-V. Mudring**, G. Meyer: (B15C5)BiI₃(I₂): Molecular Benzo-15-crown-5-BiI₃ Complexes Bridged by Iodine Molecules to Chains, *Crystals*, **2011**, *1*(4), 220-228. DOI: 10.3390/cryst1040220.

107. M. Hellwig, H. Parala, J. Cybinska, D. Barreca, A. Gasparotto, B. Niermann, H.-W. Becker, D. Rogalla, J. Feydt, S. Irsen, **A.-V. Mudring**, J. Winter, R.-A. Fischer, A. Devi: Atomic Vapor Deposition Approach to In₂O₃ Thin Films, *J. Nanoscience and Nanotechnol.*, **2011**, *11*, 9, 8094-8100. DOI: 10.1166/jnn.2011.5024.

106. M. Brühmann, **A.-V. Mudring**, M. Valldor, G. Meyer: {Os₅Lu₂₀}I₂₄, the First Extended Cluster Complex of Lutetium with Eight-Coordinate Endohedral Osmium Atoms in Two Different Environments, *Eur. J. Inorg. Chem.*, **2011**, *26*, 4083. DOI: 10.1002/ejic.201100451.

105. J. Bäcker, S. Mihm, B. Mallick, M. Yang, G. Meyer, **A.-V. Mudring**: Crystalline and Liquid Crystalline Organic-Inorganic Hybrid Salts with Cation-Sensitized Hexanuclear Molybdenum Cluster Complex Anion Luminescence: *Eur. J. Inorg. Chem.*, **2011**, *26*, 4089-4095. DOI: 10.1002/ejic.201100365.

104. A. Getsis, **A.-V. Mudring**: Switchable Green and White Luminescence in Terbium-based Ionic Liquid Crystals, *Eur. J. Inorg. Chem.*, **2011**, *21*, 3207–3213. DOI: 10.1002/ejic.201100168.

103. T. Bäcker, O. Breunig, M. Valldor, K. Merz, V. Vasylyeva, **A.-V. Mudring**: In-situ crystal growth and properties of the magnetic ionic liquid [C₂mim][FeCl₄], *Cryst. Growth Des.*, **2011**, *11*, 2564-2571. DOI: 10.1021/cg200326n.

102. G. Wang, **A.-V. Mudring**: A New Open-Framework Iron Borophosphate from Ionic Liquids: KFe[BP₂O₈(OH)], *Crystals*, **2011**, *1*, 22-27. DOI: 10.3390/cryst1020022.

101. J. Beekhuizen, **A.-V. Mudring**, G. Meyer: Linear Trimeric Hafnium Clusters in Hf_{0.86(1)}I₃, *Crystals*, **2011**, *1*, 40. DOI: 10.3390/cryst1020040.

100. C. Lorbeer, J. Cybinska, E. Zych, **A.-V. Mudring**: Ionic Liquid based Synthesis – A Low Temperature Route to Nanophosphates, *ChemSusChem*, **2011**, *4*, 595-598. DOI: 10.1002/cssc.201100095.

99. S.-F. Tang, **A.-V. Mudring**: Ionic liquids as Crystallization Media: Weakly-Coordinating Anions Do Coordinate in ¹_∞[Eu(OTf)₃(CH₃CN)₃], *Cryst. Growth Des.*, **2011**, *11*, 1437-1440. DOI: 10.1021/cg200064n.

(featured in Nachrichten der Chemie 2011)

98. K. Richter, A. Birkner, **A.-V. Mudring**: Stability and growth behavior of transition metal nanoparticles in ionic liquids prepared by thermal evaporation: how stable are they really?, *Phys. Chem. Chem. Phys.*, **2011**, *13*, 7136–7141. DOI: 10.1039/C0CP02623A.

97. C. Lorbeer, J. Cybinska, **A.-V. Mudring**: Europium(III) Fluoride Nanoparticles from Ionic Liquids: Structural, Morphological, and Luminescent Properties: *Cryst. Growth Des.*, **2011**, *11*, 1040-1048. DOI: 10.1021/cg101140r.

96. R. Starosta, M. Puchalska, J. Cybinska, M. Barys, **A.-V. Mudring**: Structures, electronic properties and solid state luminescence of Cu(I) iodide complexes with 2,9-dimethyl-1,10-phenanthroline and aliphatic aminomethylphosphines or triphenylphosphine, *Dalton Trans.*, **2011**, *40*, 2459. DOI: 10.1039/C0DT01284J.

95. M. Larres, **A.-V. Mudring**, G. Meyer: The First Lanthanide Telluride-Bromide: $\text{La}_3\text{Te}_4\text{Br}$, a Valence Compound, *Crystals*, **2011**, *1*, 15-21. DOI: 10.3390/cryst1010015.

94. P. Ghosh, S.-F. Tang, **A.-V. Mudring**: Efficient quantum cutting in hexagonal $\text{NaGdF}_4:\text{Eu}^{3+}$ nanorods, *J. Mater. Chem.* **2011**, *21*, 8640-8644, (HOT Article). DOI: 10.1039/C1JM10728C.

2010

93. A. Babai, S. Pitula, **A.-V. Mudring**: Structural and Electrochemical Properties of Yb^{III} in Various Ionic Liquids, *Eur. J. Inorg. Chem.*, **2010**, *31*, 4933-4937. DOI: 10.1002/ejic.201000323.

92. K. Habermehl, **A.-V. Mudring**, G. Meyer: The Last of the Five: the Elusive “Tantalum(III)Bromide”, a Perovskite-Related Salt, $[\{\text{Ta}_6\}\text{Br}_{12}]\text{Br}_3[\text{TaBr}_6]_{0.86}$, *Eur. J. Inorg. Chem.*, **2010**, *26*, 4076. DOI: 10.1002/ejic.201000581.

91. S. Pitula, **A.-V. Mudring**: Optical basicity of ionic liquids, *Phys. Chem. Chem. Phys.*, **2010**, *12*, 7056-7063. DOI: 10.1039/B925606G.

90. N.-V. Prondzinski, J. Cybinska, **A.-V. Mudring**: Easy access to ultra long-time stable, luminescent europium(II) fluoride nanoparticles in ionic liquids, *Chem. Commun.*, **2010**, *46*, 4393- 4395. DOI: 10.1039/c000817f.

89. N. Herzmann, M. Brühmann, **A.-V. Mudring**, G. Meyer: Chains of Face-Sharing $\{\text{ZPr}_6\}$ Octahedra with Alternating Endohedral Iridium Atoms and Chloride Ions in $\{(\text{Ir},\text{Cl})\text{Pr}_6\}\text{Cl}_{11}$, *Inorg. Chem.*, **2010**, *49*, 5347. DOI: 10.1021/ic100487k.

88. S. Zimmermann, M. Brühmann, F. Casper, O. Heyer, T. Lorenz, C. Felser, **A.-V. Mudring**, G. Meyer: Eight-Coordinate Endohedral Rhenium, Osmium and Iridium Atoms in Rare-Earth Halide Cluster Complexes, *Eur. J. Inorg. Chem.*, **2010**, *18*, 2613-2619. DOI: 10.1002/ejic.201000223.

87. A. Getsis, **A.-V. Mudring**: A Luminescent Ionic Liquid Crystal: $[\text{C}_{12}\text{mim}]_4[\text{EuBr}_6]\text{Br}$, *Eur. J. Inorg. Chem.*, **2010**, *14*, 2172-2177. DOI: 10.1002/ejic.200901220.

86. J. Bartosik, **A.-V. Mudring**: $[\text{Ni}(\text{tmen})(\text{acac})][\text{B}(\text{Ph})_4]$ a probe for the anion basicity of ionic liquids, *Phys. Chem. Chem. Phys.*, **2010**, *12*, 4005-4011. DOI: 10.1039/B920530F.

85. K. Richter, A. Birkner, **A.-V. Mudring**: Stabilizer-Free Metal Nanoparticles and Metal–Metal Oxide Nanocomposites with Long-Term Stability Prepared by Physical Vapor Deposition into Ionic Liquids, *Angew. Chem. Int. Ed.*, **2010**, *49*, 2431-2435. DOI: 10.1002/anie.200901562.

84. S. Pitula, **A.-V. Mudring**: Synthesis, Structure, and Physico-optical Properties of Manganate(II)-Based Ionic Liquids, *Chemistry – Eur. J.*, **2010**, *16*, 3355-3365. DOI: 10.1002/chem.200802660.

83. T. Alammar, A. Birkner, O. Shekhah, **A.-V. Mudring**: Sonochemical preparation of TiO₂ nanoparticles in the ionic liquid 1-(3-Hydroxypropyl)-3-methylimidazoliumbis(trifluoromethylsulfonyl)imide, *Mat. Chem. Phys.*, **2010**, *120*, 109-113. DOI:10.1016/j.matchemphys.2009.10.029.

82. E. Boros, M.-J. Earle, M.-A. Gilea, A. Metlen, **A.-V. Mudring**, F. Rieger, A.J. Robertson, K.-R. Seddon, A.A.Tomaszowska, L. Trusov, J.S. Vyle: On the dissolution of non-metallic solid elements (sulfur, selenium, tellurium and phosphorus) in ionic liquids, *Chem. Commun.*, **2010**, *46*, 716-718. DOI: 10.1039/B910469K.

81. C. Lorbeer, J. Cybinska, **A.-V. Mudring**: Facile preparation of quantum cutting GdF₃:Eu³⁺ nanoparticles from ionic liquids, *Chem. Commun.*, **2010**, *46*, 571-573 (HOT Article). DOI: 10.1039/B919732J

80. T. Bäcker, **A.-V. Mudring**: Sodium Trinitratouranyl(VI) Na[UO₂(NO₃)₃], *Z. Allg. Anorg. Chem.*, **2010**, *636*, 1002-1005. DOI: 10.1002/zaac.201000033.

79. A. Getsis, **A.-V. Mudring**: Lanthanide Containing Ionic Liquid Crystals: EuBr₂, SmBr₃, TbBr₃ and DyBr₃ in C₁₂mimBr, *Z. Allg.Anorg.Chem.*, **2010**, *636*, 1726-1734. DOI: 10.1002/zaac.201000070.

2009

78. X. Wang, F.-W. Heinemann, M. Yang, B. Melcher, M. Fekete, **A.-V. Mudring**, P. Wasserscheid, K. Meyer: A new class of double alkyl-substituted, liquid crystalline imidazolium ionic liquids—a unique combination of structural features, viscosity effects, and thermal properties, *Chem. Commun.*, **2009**, 7405-7407. DOI: 10.1039/B914939B.

77. A. Getsis, B. Balke, C. Felser, **A.-V. Mudring**: Dysprosium-Based Ionic Liquid Crystals: Thermal, Structural, Photo- and Magnetophysical Properties, *Cryst. Growth Des.*, **2009**, *9*, 4429-4437. DOI: 10.1021/cg900463b.

76. T. Alammar, **A.-V. Mudring**: Ultrasound-Assisted Synthesis of CuO Nanorods in a Neat Room-Temperature Ionic Liquid, *Eur. J. Inorg. Chem.*, **2009**, *19*, 2765-2768. DOI:10.1002/ejic.200900093.

75. S-F. Tang, **A.-V. Mudring**: Terbium β-Diketonate Based Highly Luminescent Soft Materials, *Eur. J. Inorg. Chem.*, **2009**, *19*, 2769-2775. DOI: 10.1002/ejic.200900114.

74. S.-F. Tang, **A.-V. Mudring**: The Missing Link Crystallized from the Ionic Liquid 1-Ethyl-3-methylimidazolium Tosylate: Bis-aqua-(p-toluenesulfonato-O)-europium(III)-bis-p-toluenesulfonate Dihydrate, *Cryst. Growth Des.*, **2009**, *9*, 2549-2551. DOI: 10.1021/cg900025x.

73. T. Alammar, **A.-V. Mudring**: Facile preparation of Ag/ZnO nanoparticles via photoreduction, *J.Mat. Sci.* **2009**, *44*, 3218-3222. DOI:10.1007/s10853-009-3429-4.

72. T. Alammar, **A.-V. Mudring**: Facile ultrasound-assisted synthesis of ZnO nanorods in an ionic liquid, *Mat. Lett.* **2009**, *63*, 732-735. DOI: 10.1016/j.matlet.2008.12.035.

71. S.-F. Tang, **A.-V. Mudring**: Two Cyano-Functionalized, Cadmium-Containing Ionic Liquids, *Eur. J. Inorg. Chem.* **2009**, *9*, 1145-1148. DOI: 10.1002/ejic.200801142.

70. P. Nockemann, K. Binnemanns, B. Thijs, T.-N. Parac-Vogt, K. Merz, **A.-V. Mudring**, P.-C. Menon, R.-N. Rajesh, G. Cordoyiannis, J. Thoen, J. Leys, C. Glorieux: Temperature-driven Mixing-Demixing Behavior of Binary Mixtures of the Ionic Liquid Choline Bis(trifluoromethylsulfonyl)imide and Water, *J. Phys. Chem. B*, **2009**, *113*, 1429-1437. DOI: 10.1021/jp808993t.

69. K. Richter, T. Bäcker, **A.-V. Mudring**: Facile, environmentally friendly fabrication of porous silver monoliths using the ionic liquid N-(2-hydroxyethyl)ammonium formate, *Chem. Commun.*, **2009**, 301-303. DOI: 10.1039/B815498H.

68. S.-F. Tang, J. Cybinska, **A.-V. Mudring**: Luminescent Soft Material: Two New Europium-Based Ionic Liquids, *Helv. Chim. Acta*, **2009**, *92*, 2375-2386. DOI: 10.1002/hlca.200900173.

67. T. Timofte, **A.-V. Mudring**: A Systematic Study on the Crystal Structures of TIMX₄ (M= Al, Ga; X = Cl, Br, I), *Z. Anorg. Allg. Chem.*, **2009**, *635*, 840-847. DOI: 10.1002/zaac.200801375.

66. T. Timofte, S. Bremm, **A.-V. Mudring**, G. Meyer: (NH₄)[GaCl₃] and (NH₃)[InCl₃] Revisited, *Z. Anorg. Allg. Chem.*, **2009**, *635*, 1890-1893. DOI: 10.1002/zaac.200900008.

65. A. Getsis, **A.-V. Mudring**, Structural and Thermal Behaviour of the Pyrrolidinium Based Ionic Liquid Crystals [C₁₀mpyr]Br and [C₁₂mpyr]Br, *Z. Anorg. Allg. Chem.* **2009**, *635*, 2214-2221. DOI: 10.1002/zaac.200900216.

2008

64. A. Getsis, **A.-V. Mudring**: Imidazolium based ionic liquid crystals: structure, photophysical and thermal behaviour of [C_nmim]Br • xH₂O (n = 12, 14; x=0, 1), *Cryst. Res. Technol.*, **2008**, *43*, 1187-1196. DOI: 10.1002/crat.200800345.

63. N. Herzmann, **A.-V. Mudring**, G. Meyer: Seven-coordinate ruthenium atoms sequestered in praseodymium clusters in the chloride {RuPr₃}Cl₃, *Inorg. Chem.*, **2008**, *47*, 7954-7956. DOI: 10.1021/ic800907c.

62. B. Mallick, H. Kierspel, **A.-V. Mudring**: (CrCl₃)₃@2[C₄mim][OMe]-Molecular Cluster-Type Chromium(III) Chloride Stabilized in a Salt Matrix, *J. Am. Chem. Soc.*, **2008**, *130*, 10068-10069. DOI: 10.1021/ja803322k.

- 61.** S.-F. Tang, A. Babai, **A.-V. Mudring**: Europium-Based Ionic Liquids as Luminescent Soft Materials, *Angew. Chem. Int. Ed.*, **2008**, *47*, 7631-7634. DOI: 10.1002/anie.200801159.
- 60.** B. Mallick, B. Balke, C. Felser, **A.-V. Mudring**: Dysprosium Room-Temperature Ionic Liquids with Strong Luminescence and Response to Magnetic Fields, *Angew. Chem. Int. Ed.*, **2008**, *47*, 7635-7638. DOI: 10.1002/anie.200802390.
- 59.** A. Getsis, **A.-V. Mudring**: Tetrakis(acetonitrile)-dibromo-nickel(II), [Ni(CH₃CN)₄Br₂], *Z. Anorg. Allg. Chem.*, **2008**, *634*, 2130-2132. DOI: 10.1002/zaac.200700509.
- 58.** T. Timofte, **A.-V. Mudring**: Indium(I) Tetraiodoaluminate, InAlI₄, *Z. Anorg. Allg. Chem.*, **2008**, *634*, 622-623. DOI: 10.1002/zaac.200700525.
- 57.** T. Timofte, **A.-V. Mudring**: Indium(I) Heptachlorogallate(III), InGa₂Cl₇, *Z. Anorg. Allg. Chem.*, **2008**, *634*, 624-625. DOI: 10.1002/zaac.200700526.
- 56.** G. Meyer, R. Wiglucz, I. Pantenburg, **A.-V. Mudring**: Tantalum(IV) Iodide: A Molecular Solid Consisting of Dimers of Dimers, Ta₄I₁₆, *Z. Anorg. Allg. Chem.*, **2008**, *634*, 825-828. DOI: 10.1002/zaac.200700529.
- 55.** A. Babai, **A.-V. Mudring**: The First Homoleptic Bis(trifluoromethanesulfonyl)amide Complex of Yttrium: [bmim][Y(Tf₂N)₄], *Z. Anorg. Allg. Chem.*, **2008**, *634*, 938-940. DOI: 10.1002/zaac.200700545.
- 54.** A. Getsis, **A.-V. Mudring**: Tetrakis(acetonitrile)-dibromo-nickel(II)-di-acetonitrile, [Ni(CH₃CN)₄Br₂]·2CH₃CN, *Z. Anorg. Allg. Chem.*, **2008**, *634*, 619-621. DOI: 10.1002/zaac.200800179.
- 53.** F. Rieger, **A.-V. Mudring**: Pb(18-crown-6)Cl₂ and Hg(18-crown-6)I₂: Molecular Dihalides Trapped in a Crown Ether, *Z. Anorg. Allg. Chem.*, **2008**, *634*, 2989-2993. DOI: 10.1002/zaac.200800365.

2007

- 52.** F. Rieger, **A.-V. Mudring**: Synthesis, Structure, and Electronic and Physical Properties of Tl₂TeS₃, the First Characterized Thallium(I) Thiotellurate(IV), *Chem. Mater.*, **2007**, *19*, 221-228. <https://doi.org/10.1021/cm0526866>.
- 51.** F. Rieger, **A.-V. Mudring**: Phase transition in Tl₂TeO₃: influence and origin of the thallium lone pair distortion, *Inorg. Chem.*, **2007**, *46*, 446-452. DOI: 10.1021/ic061273j.
- 50.** **A.-V. Mudring**: Thallium Halides – New Aspects of the Stereochemical Activity of Electron Lone Pairs of Heavier Main-Group Elements, *Eur. J. Inorg. Chem.*, **2007**, *6*, 882. <https://doi.org/10.1002/ejic.200600975>.
- 49.** N. v. Prondzinski, A. Babai, **A.-V. Mudring**, K. Merz: [(bmpyr)₂{Zn(OC₆H₃(NO₂)₂₄)}]: Influence of an Ionic Liquid on Liquid/Liquid Extraction of Metal Ions in a Biphasic System, *Z. Anorg. Allg. Chem.*, **2007**, *633*, 1490-1492. DOI: 10.1002/zaac.200700169.

48. T. Timofte, S. Pitula, **A.-V. Mudring**: Ionic liquids with Perfluorinated Alkoxyaluminates, *Inorg.Chem.*, **2007**, *46*, 10938-10940. DOI: 10.1021/ic7009995.

2006

47. L. Jongen, A.-V. Mudring, G. Meyer: The Molecular Solid Sc₂₄C₁₀I₃₀: A Truncated, Hollow T₄ Supertetrahedron of Iodine Filled with a T₃ Supertetrahedron of Scandium that Encapsulates the Adamantoid Sc₄C₁₀, *Angew. Chem. Int. Ed.*, **2006**, *45*, 1886-1889. DOI: 10.1002/anie.200503914.

46. A.-V. Mudring, T. Timofte, A. Babai: Cluster-type basic basic lanthanide iodides [M₆(μ⁶-O)(μ³-OH)₈(H₂O)₂₄]I₈(H₂O)₈ (M=Nd, Eu, Tb, Dy), *Inorg. Chem.*, **2006**, *45*, 5162-5166. DOI: 10.1021/ic051234s.

45. A. Babai, A.-V. Mudring: Crystal Engineering in Ionic Liquids. The Crystal Structures of [Mppyr]₃[NdI₆] and [Bmpyr]₄[NdI₆][Tf₂N], *Inorg. Chem.*, **2006**, *45*, 4874-4876. DOI: 10.1021/ic060414e.

44. A. Babai, A.-V. Mudring: Homoleptic Alkaline Earth Metal Bis(trifluoromethanesulfonyl)imide Complex Compounds Obtained from an Ionic Liquid, *Inorg. Chem.*, **2006**, *45*, 3249-3255. DOI: 10.1021/ic051820l.

43. A. Babai, A.-V. Mudring: The Octanuclear Europium Cluster [bmypr]₆[Eu₈(μ⁴-O)(μ³-OH)₁₂(μ²-OTf)₁₄(μ¹-Tf)₂](HOTf)_{1.5} Obtained from the Ionic Liquid [bmpyr][OTf], *Z. Anorg. Allg. Chem.*, **2006**, *632*, 1956-1958. DOI: 10.1002/zaac.200600150.

42. G.Meyer, M. Nolte, A.-V. Mudring: HgCl₂(Caf): Co-crystallization of Mercuric Chloride and Caffeine, *Z. Anorg. Allg. Chem.* **2006**, *632*, 107-110. DOI: 10.1002/zaac.200500346.

41. A. Babai, **A.-V. Mudring**: The first homoleptic bis(trifluoromethanesulfonyl)amide complex compounds of trivalent f-elements, *Dalton Trans.*, **2006**, 1828-1830. DOI: 10.1039/B517694H.

40. **A.-V. Mudring**, A. Babai, S. Arenz, R. Giernoth, K. Binnemanns, K. Driesen, P. Nockemann: Strong luminescence of rare earth compounds in ionic liquids: Luminescent properties of lanthanide(III) iodides in the ionic liquid 1-dodecyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide, *J. Alloys and Comp.*, **2006**, *418*, 204-208. DOI: 10.1016/j.jallcom.2005.10.069.

39. A. Babai, **A.-V. Mudring**: Rare-earth iodides in ionic liquids: Crystal structures of [bmpyr]₄[LnI₆][Tf₂N] (Ln = La, Er), *J. Alloys and Comp.*, **2006**, *418*, 122-127. DOI: 10.1016/j.jallcom.2005.08.088.

2005

38. F. Rieger, **A.-V. Mudring**: Crystal Structure of Rubidium Tetraiodothallate(III) Dihydrate, RbTlI₄·2H₂O, *Z. Anorg. Allg. Chem.* **2005**, *631*, 1571-1573. DOI: 10.1002/zaac.200500082.

37. N. Gerlitzki, **A.-V. Mudring**, G.Meyer: Ba₆Pr₃I₁₉: Linear [Pr₃I₁₆] Trimers with Two Excess Electrons in a Three-Centre-Two-Electron Bond, *Z. Anorg. Allg.Chem.*, **2005**, 631, 381-384. DOI: 10.1002/zaac.200500082.
36. **A.-V. Mudring**, A. Babai, [Nd₆(μ⁶-O)(μ³-OH)₈(H₂O)₂₄]I₈(H₂O)₁₂ - the First Basic Rare Earth Iodide with an Oxygen-centred M₆X₈-Cluster Core, *Z. Anorg. Allg.Chem.*, **2005**, 631, 261-263. DOI: 10.1002/zaac.200400377.
35. S. Arenz, A. Babai, K. Binnemanns, K. Driesen, R. Giernoth, **A.-V. Mudring**, P. Nockemann: Intense near-infrared luminescence of anhydrous lanthanide(III) iodides in an imidazolium ionic liquid, *Chem. Phys. Lett.* **2005**, 402, 75-79. DOI: 10.1016/j.cplett.2004.12.008.
34. F. Rieger, **A.-V. Mudring**: Inorganic Supramolecular Host Architectures: [(M@18c6)₂][TlI₄]·2H₂O, M = 0.5 Tl, (NH₄,NH₃), (H₃O,H₂O), *Inorg. Chem.*, **2005**, 44, 9340-9346. DOI: 10.1021/ic051430z.
33. **A.-V. Mudring**, J.-D. Corbett: Importance of Cations in the Properties of Zintl-Phases: The Electronic Structure of and Bonding in Metallic Na₆TlSb₄, *Inorg.Chem.*, **2005**, 44, 6515-6517. DOI: 10.1021/ic050979v.
32. P. Schwerdtfeger, R. Bast, M.-C.-L. Gerry, C. Jacob, M. Jansen, V. Kellö, **A.-V. Mudring**, A.J. Sadlej, T. Saue, T. Söhnel, F.-E.Wagner: The quadrupole moment of the 3/2⁺ nuclear ground state of ¹⁹⁷Au from electric field gradient relativistic coupled cluster and density-functional theory of small molecules and the solid state, *J. Chem. Phys.*, **2005**, 122, 124317. DOI: 10.1063/1.1869975.
31. A. Getsis, **A.-V. Mudring**: 1-Dodecyl-3-methylimidazolium bromide monohydrate, *Acta Cryst.* **2005**, E61, o2945-o2946. DOI:10.1107/S1600536805025717.
30. A. Babai, **A.-V. Mudring**: N-Methyl-N-propylpyrrolidinium iodide, *Acta Cryst.*, **2005**, E61, o2913-o2915. DOI: 10.1107/S160053680502548.
29. A. Babai, **A.-V. Mudring**: 1-Ethyl-2,3-dimethylimidazolium bromide monohydrate, *Acta Cryst.*, **2005**, E61, o1534-o1535. DOI: 10.1107/S1600536805012948.
28. T. Timofte, **A.-V. Mudring**: Indium(I) tetrachloroaluminate, *Acta Cryst.*, **2005**, E61, i199-i200. DOI: 10.1107/S160053680502506.
27. T. Timofte, A. Babai, G. Meyer, **A.-V. Mudring**: Praseodymium triiodide nonahydrate, *Acta Cryst.*, **2005**, E61, i94-i95. DOI: 10.1107/S1600536805012857.
26. T. Timofte, A. Babai, G.Meyer, **A.-V. Mudring**: Neodymium triiodide nonahydrate, *Acta Cryst.*, **2005**, E61, i87-i88. DOI: 10.1107/S160053680501216.
25. A. Babai, **A.-V. Mudring**: Rare-Earth Iodides in Ionic Liquids: The Crystal Structure of [SEt₃]₃[LnI₆] (Ln = Nd, Sm), *Inorg. Chem.*, **2005**, 44, 8168-8169. DOI: 10.1021/ic051533h.
24. **A.-V. Mudring**, F. Rieger: Lone Pair Effect in Thallium(I) Macrocyclic Compounds, *Inorg.Chem.*, **2005**, 44, 6240-6243. DOI: 10.1021/ic050547k.

23. A.-V. Mudring, A. Babai, S. Arenz, R. Giernoth: The “Noncoordinating” Anion Tf_2N^- Coordinates to Yb^{2+} : A Structurally Characterized Tf_2N^- Complex from the Ionic Liquid $[\text{mppyr}][\text{Tf}_2\text{N}]$, *Angew. Chem. Int. Ed.*, **2005**, *44*, 5485-5488. DOI: 10.1002/anie.200501297.

22. A. Babai, **A.-V. Mudring**: Anhydrous Praseodymium Salts in the Ionic Liquid $[\text{bmpyr}][\text{Tf}_2\text{N}]$: Structural and Optical Properties of $[\text{bmpyr}]_4[\text{PrI}_6][\text{Tf}_2\text{N}]$ and $[\text{bmpyr}]_2[\text{Pr}(\text{Tf}_2\text{N})_5]$, *Chem. Mater.*, **2005**, *17*, 6230-6238. DOI: 10.1021/cm051137x.

2004

21. A.-V. Mudring, J.-D. Corbett: Unusual Electronic and Bonding Properties of the Zintl Phase Ca_5Ge_3 and Related Compounds. A Theoretical Analysis, *J. Am. Chem. Soc.*, **2004**, *126*, 5277-5281.

20. L. Jongen, A.-V. Mudring, A. Möller, G. Meyer: An Oxygen-Centered Titanium Square Embedded in a Cuboctahedron of Iodine in the Salt $\text{K}_4[\{\text{Ti}_4\text{O}\}\text{I}_{12}]$, *Angew. Chem. Int. Ed.*, **2004**, *43*, 3183-3185.

19. N. Gerlitzki, G. Meyer, A.-V. Mudring, J.D. Corbett: Praseodymium diiodide, PrI_2 , revisited by synthesis, structure determination and theory, *J. Alloys and Compd.*, **2004**, *380*, 211-218.

18. B.M. Sobotka, A.-V. Mudring, A. Möller: Synthesis, Crystal Structures and Properties of Na_2ReO_3 and a Second Modification of Na_5ReO_6 , *Z. Anorg. Allg. Chem.*, **2004**, *630*, 2377-2383. DOI: 10.1002/zaac.200400314.

17. G. Meyer, I. Jurkiewicz, M. Nolte, A.-V. Mudring: Strong Attraction of Caffeine to the Mercurous Dumbbell in the Salt $[\text{Hg}_2(\text{Caf})_2](\text{ClO}_4)_2(\text{H}_2\text{O})_2$, *Z. Anorg. Allg. Chem.*, **2004**, *630*, 1933-1936. DOI: 10.1002/zaac.200400127.

2003

16. S. Krämer, M. Mehring, A.-V. Mudring, M. Jansen: Localized Charge Transfer in CsAuNH_3 : ^1H and ^{133}Cs Nuclear Magnetic Resonance, *J. Phys. Chem. B*, **2003**, *107*, 4922-4926. DOI: 10.1021/jp022509h.

15. B. Li, A.-V. Mudring, J.-D. Corbett: Valence Compounds versus Metals. Synthesis, Characterization, and Electronic Structure of Cubic Ae_4Pn_3 Phases in the Systems $\text{Ae}=\text{Ca}$, Sr , Ba , Eu ; $\text{Pn}=\text{As}$, Sb , Bi , *Inorg. Chem.*, **2003**, *42*, 6940-6945.

14. A.M. Guloy, A.-V. Mudring, J.-D. Corbett: Nine Hexagonal $\text{Ca}_5\text{Pb}_3\text{Z}$ Phases in Stuffed Mn_5Si_3 -Type Structures with Transition Metal Interstitial Atoms Z. Problems with Classical Valence States in Possible Zintl Phases, *Inorg. Chem.*, **2003**, *42*, 6673-6681.

2002

13. A.-V. Mudring, M. Jansen, J. Daniels, S. Krämer, M. Mehring, J.-P. Ramalho, A.-H. Romero, M. Parrinello: Cesiumauride Ammonia (1/1), CsAu NH₃: A Crystalline Analogue to Alkali Metals Dissolved in Ammonia?, *Angew. Chem. Int. Ed.*, **2002**, *114*, 128-132. DOI: 10.1002/1521-3757(20020104)114:1<128::AID-ANGE128>3.0.CO;2-U.

2001

12. A.-V. Mudring, M. Jansen: Darstellung und Kristallstruktur von Rb₄Br₂O und Rb₆Br₄O, *Z. Anorg. Allg. Chem.*, **2001**, *627*, 1606-1610. DOI: [https://doi.org/10.1002/1521-3749\(200107\)627:7<1606::AID-ZAAC1606>3.0.CO;2-U](https://doi.org/10.1002/1521-3749(200107)627:7<1606::AID-ZAAC1606>3.0.CO;2-U).

11. A.-V. Mudring, M. Jansen: Synthese, Kristallstruktur und Eigenschaften von Na₂RbAuO₂, *Z. Anorg. Allg. Chem.*, **2001**, *627*, 135-138. DOI: [https://doi.org/10.1002/1521-3749\(200102\)627:2<135::AID-ZAAC135>3.0.CO;2-K](https://doi.org/10.1002/1521-3749(200102)627:2<135::AID-ZAAC135>3.0.CO;2-K).

10. A.-V. Mudring, M. Jansen: Synthese und Kristallstruktur von Cs₃AuO₂, *Z. Anorg. Allg. Chem.*, **2001**, *627*, 77-80. DOI: [https://doi.org/10.1002/1521-3749\(200101\)627:1<77::AID-ZAAC77>3.0.CO;2-N](https://doi.org/10.1002/1521-3749(200101)627:1<77::AID-ZAAC77>3.0.CO;2-N).

9. A.-V. Mudring, M. Jansen: Rb₈AlO₄Au₃ - Ein Aluminat-Aurid, *Z. Naturforsch.*, **2001**, *56b*, 433-436.

8. A.-V. Mudring, M. Jansen: Darstellung und Kristallstruktur von Cs₆Cl₄O, *Z. Naturforsch.*, **2001**, *56b*, 209-212.

7. A.-V. Mudring, M. Jansen: Single Crystal Structure of Rb₄Cl₂O, *Z. Krist. NCS*, **2001**, *216*, 483.

6. A.-V. Mudring, M. Jansen: Crystal Structure of RbAuO, *Z. Krist. NCS*, **2001**, *216*, 482.

5. A.-V. Mudring, M. Jansen: Crystal Structure Refinement of CsAuO, *Z. Krist. NCS*, **2001**, *216*, 481.

4. A.-V. Mudring, M. Jansen: Crystal Structure of NaAuO₂, *Z. Krist. NCS*, **2001**, *216*, 326.

3. A.-V. Mudring, M. Jansen: Crystal Structure of Cs₂RbAuO, *Z. Krist. NCS* **2001**, *216*, 325.

2. A.-V. Mudring, M. Jansen: Base-induced disproportionation of elemental gold, *Angew. Chem. Int. Ed. Engl.* **2000**, *39*, 3066-3067. DOI: 10.1002/1521-3773(20000901)39:17<3066::AID-ANIE3066>3.0.CO;2-J

2000

1. A.-V. Mudring, J. Nuss, U. Wedig, M. Jansen: MixedValent Gold Oxides: Syntheses, Structures, and Properties of Rb₅Au₃O₂, Rb₇Au₅O₂ and Cs₇Au₅O₂, *J. Solid State Chem.* **2000**, *155*, 29-36. DOI: 10.1006/jssc.2000.8881

Peer-reviewed conference contributions

5. A. Provino, A. Pathak, V. Pecharsky, M. Putti, C. Ferdeghini, V. Smetana, A. Mudring, P. Manfrinetti, Nanomaterials for Energy Conversion – The Synthesis of Highly Crystalline Ytterbium(III)Fluoride Nanoparticles From Ionic Liquids, *Bull. Am. Chem. Soc.* **2018**, <http://meetings.aps.org/Meeting/MAR18/Session/C30.1>
4. C. Lorbeer, A.-V. Mudring, Nanomaterials for Energy Conversion – The Synthesis of Highly Crystalline Ytterbium(III)Fluoride Nanoparticles From Ionic Liquids, Proceedings for the 39th Intl Conference and Exhibition on Advanced Ceramics and Composites, Daytona **2015**.
3. M. Grodzicki, B. Mallick, A.-V. Mudring: Electronic and magnetic structure of $(\text{CrCl}_3)_3$, *J. Phys.: Conf. Ser.*, **2010**, 200. DOI: 10.1088/1742-6596/200/3/032020
2. A. Ispas, M. Buschbeck, S. Pitula, **A.-V. Mudring**, M. Uhlemann, A. Bund, F. Endres: Electrodeposition of Co, Sm and Co-Sm Thin Layers, *ECS Trans.*, **2009**, 16, 119-127. Not listed in Web of Science.
1. A. Ispas, M. Buschbeck, M. Uhlemann, A. Bund, S. Pitula, A.-V. Mudring, F. Endres: Electrodeposition of Ferromagnetic Materials from Air and Water Stable Ionic Liquids, *ECS Trans.*, **2008**, 13, 113-119. Not listed in Web of Science

Monographs

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Research review articles

- R10.** A. Ovchinnikov, V. Smetana, **A.-V. Mudring**, Metallic alloys at the edge of complexity: structural aspects, chemical bonding and physical properties, *J. Phys.: Cond. Mat.* **2020**, *32*, 243002 (26 pages). DOI: 10.1088/1361-648X/ab6b8.
- R9.** V. Smetana, M. Wilk-Kozubek, **A.-V. Mudring**, Active-transition-metal tellurides: through crystal structures to physical properties, *Cryst. Growth Des.*, **2019**, *19*, 5429-5440. DOI: 10.1021/acs.cgd.8b01582.
- R8.** C. Celania, **A.-V. Mudring**, Structures, Properties, and Potential Applications of Rare Earth-Noble Metal Tellurides, *J. Solid State Chem.*, **2019**, *274*, 243-258. DOI: 10.1016/j.jssc.2019.03.009.
- R7.** D. Prodius, **A.-V. Mudring**, Rare earth metal-containing ionic liquids, *Coord. Chem. Rev.* **2018**, *363*, 1-16. DOI: 10.1016/j.ccr.2018.02.004.
- R6.** V. Smetana, M. Rhodehouse, G. Meyer, **A.-V. Mudring**, Gold Polar Intermetallics: The Influence of Relativity on Structural Versatility and Exclusive Bonding Motifs, *Acc. Chem. Res.* **2017**, *50*, 2633-2641. DOI: 10.1021/acs.accounts.7b00316.
- R5.** R.K. Sharma, **A.-V. Mudring**, P. Ghosh: Recent trends in binary and ternary rare-earth fluoride nanophosphors: How structural and physical properties influence optical behaviour, *J. Lumin.* **2017**, *189*, 44-63. <http://doi.org/10.1016/j.jlumin.2017.03.062>.
- R4.** M. Li, **A.-V. Mudring**, New developments in the synthesis, structure and applications of borophosphates and metalloborophosphates, *Crystal Growth Des.* **2016**, *16*, 2441-2458. DOI: 10.1021/acs.cgd.5b01035.
- R3.** K. Richter, P. S. Campbell, T. Bäcker, A. Schimitzek, D. Yaprak, **A.-V. Mudring**, Ionic Liquids for the Synthesis of Nanoparticles, *physica status solidi b*, **2013**, *250*, 1152-1164. DOI: 10.1002/pssb.201248547.
- R2.** **A.-V. Mudring**, S.-F. Tang: Ionic Liquids for Lanthanide and Actinide Chemistry, *Eur. J. Inorg. Chem.*, **2010**, *18*, 2569-2581. DOI: 10.1002/ejic.201000297.
- R1.** **A.-V. Mudring**: Solidification of Ionic Liquids: Theory and Techniques, *Aust. J. Chem.*, **2010**, *63*, 544-564. DOI: 10.1071/CH10017.

Book Chapters (B)

- B11.** D. Prodius, **A.-V. Mudring**, Coordination Chemistry in Rare Earth Containing Ionic Liquids, *Handbook on the Physics and Chemistry of Rare Earths*, **2016**, 50, 395-420. DOI: 10.1016/bs.hpcr.2016.09.002.
- B10.** P. Ghosh, C. Lorbeer, **A.-V. Mudring**, Nanofluorides for environmentally benign lighting and energy conversion in solar cells, in *Fluorine-Related nanoscience with Energy Applications*, *ACS Symposium Series*, **2011**, 1064, 87-99.
- B9.** **A.-V. Mudring**, T. Alammar, T. Bäcker, K. Richter, Nanoparticle Synthesis in ionic Liquids, in *Ionic Liquids: From Knowledge to Application*, Eds. N.V. Pechkova, R.D. Rogers, K.R. Seddon, *ACS Symposium Series* **2009**, 1030, 177-188.
- B8.** **A.-V. Mudring**: Spectroscopy and ionic liquids, *Topics in Current Chemistry*, **2009**, 290, 285. DOI:10.1007/128_2008_45.
- B7.** **A.-V. Mudring**: Complexation studies of f-elements in ionic liquids. Solvent Extraction: Fundamentals to Industrial Applications, Proceedings of ISEC 2008 International Solvent Extraction Conference, Tucson, AZ, United States, Sept. 15-19, 2008, **2008** (2) 1271.
- B6.** **A.-V. Mudring**: Ionic Liquids as Versatile Media in Lanthanide Chemistry, in: R. Rogers, K. Seddon (Eds.) *ACS Symposium Series* (2007).
- B5.** **A.-V. Mudring**: Stereochemical activity of lone pairs in heavier main group elements, in: G. Meyer, D. Naumann, L. Wesemann (Eds.), *Inorganic Chemistry in Focus III*, Wiley VCH, Chapter 2, p. 15-28 (2006).
- B4.** G. Meyer, L. Jongen, **A.-V. Mudring**, A. Möller: Divalent Scandium?, in: G. Meyer, D. Naumann, L. Wesemann (Eds.), *Inorganic Chemistry in Focus II*, Wiley VCH, Chapter 7, p. 105-120 (2005).
- B3.** **A.-V. Mudring**: Inorganic Problems in: *Preparatory Problems for the 36th International Chemistry Olympiad*, Kiel 2004.
- B2.** **A.-V. Mudring**, J. Nuss, M. Jansen: *New gold compounds with unusual properties*, *Jahresbericht der Max-Planck-Gesellschaft* (2002).
- B1.** M. Jansen, **A.-V. Mudring**: The Chemistry of Gold Oxides, in: H. Schmidbaur (Ed.), *Gold - Progress in Chemistry, Biochemistry and Technology*, Wiley, Chichester, p. 747-793 (1999).

Books

1. A.-V. MUDRING: Darstellung intermetallischer Phasen durch Metallverdampfung, Wissenschaft und Technik Verlag, Berlin (2001).
2. A.-V. MUDRING: Ein Beitrag zur Chemie des Goldes – Darstellung, Struktur und Eigenschaften von Auriden, Auraten und Auridauraten, Wissenschaft und Technik Verlag, Berlin (2001).
3. A.-V. MUDRING, I. PANTENBURG: Conference Proceedings der XXI. Tage der Seltenen Erden – Terrae Rarae 2008, NWT-Verlag, Bornheim (2008).

Popular science publications including books/presentations

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Guest Editor

1. G. Miller, G. Meyer, A.-V. Mudring, Corbett Special Issue Editorial, *Inorg. Chem.* **2015**, *54*, 16886-16896. DOI:10.1021/ic5026125

Obituaries

1. G. Meyer, A.-V. Mudring, K.R. Poepfelmeier, John D. Corbett (1926-2013), *Angew. Chem. Int. Ed.* **2013**, *52*, 13513-13514. DOI:10.1002/anie.201309705

Contributions to Published Conference Proceedings

- 37.** N. HERZMANN, A.-V. MUDRING, G. MEYER: Seven-Coordinate Ruthenium in the New Praseodymium Cluster Chloride $\{\text{RuPr}_3\}\text{Cl}_3$, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P07-22-304 (ISBN 978-3-941372-00-9).
- 36.** B. MALLICK, J. CYBINSKA, A.-V. MUDRING: Luminescent and structural behaviour of copper(I)-doped rare earth containing ionic liquids, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-10-311 (ISBN 978-3-941372-02-3).
- 35.** CH. LORBEER, J. CYBINSKA, A.-V. MUDRING: Spectroscopic properties of $\text{GdF}_3:\text{Eu}^{3+}$ nanocrystals synthesized via microwave synthesis in ionic liquids, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-08-194 (ISBN 978-3-941372-02-3).
- 34.** J. CYBINSKA, A.-V. MUDRING, G. MEYER: IR and Vis emission of K_2LnCl_5 ($\text{Ln}=\text{Gd}, \text{La}$) crystals doped by Tb^{3+} and Yb^{3+} ions, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-08-194 (ISBN 978-3-941372-02-3).
- 33.** CH. LORBEER, J. CYBINSKA, A.-V. MUDRING: Rhombic YbF_3 and $\text{GdF}_3:\text{Yb}^{3+}$ nanoparticles synthesized in ionic liquids, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-08-122 (ISBN 978-3-941372-02-3).
- 32.** M. KAPPELS, A.-V. MUDRING: Lanthanide-containing Ionic Liquid Crystals, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-10-119 (ISBN 978-3-941372-02-3).
- 31.** N.V. PRONDZINSKI, A.-V. MUDRING: Luminescent lanthanide nanoparticles via metal vapour synthesis in ionic liquids, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-09-120 (ISBN 978-3-941372-02-3).
- 30.** S. TANG, A.-V. MUDRING: A sweet luminescent ionic liquid, *Programme and Abstracts of the 7th International Conference on f Elements (7 ICfE), incorporating XXII. Tage der Seltenen Erden - Terrae Rarae 2009*, **2009**, P04-10-120 (ISBN 978-3-941372-02-3).
- 29.** B. MALLICK, B. BALCKE, C. FELSER, A.-V. MUDRING: Rare Earth Containing Luminescent and Magnetic Ionic Liquids, *Conference Proceedings der XXI. Tage der Seltenen Erden - Terrae Rarae 2008*, **2008**, 63 (ISBN 978-3-941372-00-9).
- 28.** CH. LORBEER, K. RICHTER, A.-V. MUDRING: Synthesis of EuF_3 -Nanoparticles in Ionic Liquids via Microwave and Conventional Heating, *Conference Proceedings der XXI. Tage der Seltenen Erden - Terrae Rarae 2008*, **2008**, 62 (ISBN 978-3-941372-00-9).
- 27.** N. HERZMANN, A.-V. MUDRING, G. MEYER: Seven-Coordinate Ruthenium in the New Praseodymium Cluster Chloride $\{\text{RuPr}_3\}\text{Cl}_3$, *Conference Proceedings der XXI. Tage der Seltenen Erden - Terrae Rarae 2008*, **2008**, 54 (ISBN 978-3-941372-00-9).

26. A. GETSIS, A.-V. MUDRING: Lanthanidomesogens, *Conference Proceedings der XXI. Tage der Seltenen Erden - Terrae Rarae 2008*, **2008**, 50 (ISBN 978-3-941372-00-9).
25. T. TIMOFTE, A.-V. MUDRING: Crystal Structure, Thermal and Spectroscopic Properties of the Ionic Liquid [bmim][Al(hfip)₄], *Z. Krist. Suppl. Vol.* **2007**, 070-08-id235.
24. F. RIEGER, A.-V. MUDRING: Structures and properties of new thallium tellurites, *Z. Krist. Suppl. Vol.* **2007**, 080-08-id179.
23. A. GETSIS, A.-V. MUDRING: [C₁₂mim]₄[EuBr₆]Br·CH₃CN: A Lanthanide Based Ionic Liquid Crystal, *Z. Krist. Suppl. Vol.* **2007**, 041-01-id177.
22. A.-V. MUDRING: Ionic Liquids – New Versatile Materials in: M. Lein (ed.) Proceedings of the NZIC 2006, Massey University Press, Palmerston North, Vol. 1, 91. ISBN-10: 0-473-11854-8
21. T. TIMOFTE, A.-V. MUDRING: Ionic Liquids with Weakly Coordinating Anions, *Z. Anorg. Allg. Chem.* **2006**, 632, 2164.
20. A. BABAI, A.-V. MUDRING: Solvent-Solute Interactions, *Z. Anorg. Allg. Chem.* **2006**, 2163.
19. F. RIEGER, A.-V. MUDRING: New Thallium Sulfotellurites, *Z. Anorg. Allg. Chem.* **2006**, 632, 2113.
18. A. GETSIS, A.-V. MUDRING: Ionic Liquid Crystals, *Z. Anorg. Allg. Chem.* **2006**, 632, 2106.
17. F. RIEGER, A.-V. MUDRING: [(M@18-crown-6)₂][TlI₄]: Decorated MgCu₂ structure, *Z. Krist.* **2005**, *Suppl.* 22, 73.
16. T. TIMOFTE, A. BABAI, A.-V. MUDRING: Rare-Earth Triiodide- Hydrates, *Z. Krist.* **2005**, *Suppl.* 22, 169.
15. A. BABAI, A.-V. MUDRING: Crystal structures of [BMPYRR]₄[MI₆][BTA] – BMPYRR = 1,1 butylmethyl-pyrrolidinium; BTA = bis(trifluoromethanesulfonyl)amide and M = La, Pr, Nd, Sm, Er, *Z. Krist.* **2005**, *Suppl.* 22, 168.
14. L. JONGEN, A.-V. MUDRING, G. MEYER: Crystal Structure of K₄Ti₄OBr₁₂, *Z. Krist.* **2004**, *Suppl.* 21, 166.
13. A.-V. MUDRING: A novel type of closed-shell interactions? Chemical bonding in {AgHg₂}³⁺, *Z. Anorg. Allg. Chem.* **2004**, 630, 1745.
12. F. RIEGER, A.-V. MUDRING: Kristallstruktur von [Tl(18-Krone-6)TlI₄] als Beitrag zum Redoxverhalten von Thallium, *Z. Krist.* **2004**, *Suppl.* 21, 73.
11. F. RIEGER, A.-V. MUDRING: Stereochemistry and bonding of Tl(I) in macrocyclic polyethers, *Z. Anorg. Allg. Chem.* **2004**, 630, 1755.

10. A.-V. MUDRING, J.D. CORBETT: Influence of cations on physical properties of the Zintl phases, *Z. Anorg. Allg. Chem.* **2004**, 630, 1746.
9. A. BABAI, A.-V. MUDRING, S. ARENZ, R. GIERNOTH, P. NOCKEMANN: Spectroscopic properties of rare earth iodides in the ionic liquid [C₁₂mim][BTA], *Z. Anorg. Allg. Chem.* **2004**, 630, 1697.
8. A.-V. MUDRING, M. JANSEN: Polytypie von CsAu·NH₃, *Z. Krist.* **2002**, Suppl. 19, 114.
7. A.-V. MUDRING, M. JANSEN: Darstellung und Einkristallstrukturbestimmung von Oxidhalogeniden des Typs M₄X₆O (M = Sr, Ba; X = Br, I), *Z. Krist.* **2002**, Suppl. 19, 114.
6. A.-V. MUDRING: Neue Einblicke in die Chemie des Goldes, *Z. Anorg. Allg. Chem.* **2002**, 628, 2157.
5. A.-V. MUDRING, J. D. CORBETT: The metallic behavior of electronprecise Zintl compounds: A theoretical investigation of the electronic structure of Ca₅Ge₃, *Z. Anorg. Allg. Chem.* **2002**, 628, 2226.
4. A.-V. MUDRING, M. JANSEN, H. EBERT, F.E. WAGNER: Elektronische Eigenschaften von (Rb/Cs)₃AuO, *Z. Anorg. Allg. Chem.* **2002**, 628, 2225.
3. A.-V. MUDRING, M. JANSEN: Gemischte Auridaurate der Zusammensetzung Cs_{7-x}Rb_x Au₅O₂, *Z. Anorg. Allg. Chem.* **2002**, 628, 2200.
2. A.-V. MUDRING, M. JANSEN: Aufbauprinzip von Alkalimetallhalogeniden, *Z. Krist.* **2001**, Suppl. 18, 121.
1. A.-V. MUDRING, M. JANSEN: Kristallchemische Äquivalenz von Gold- und schwereren Halogenanionen in Halogenid- und Auridauraten, *Z. Krist.* **2001**, Suppl. 18, 117.

Patents and Patent Applications

P1. T. Woike, A. Schuy, J. Krause, D. Schaniel, S. Pitula, A.-V. Mudring: *Photostability of solution of fluorescent dyes in ionic liquids in the presence of an electron acceptor.* PCT Int. Appl. (2010), WO 2010091848.

P2. T. Woike, A. Schuy, J. Krause, D. Schaniel, S. Pitula, A.-V. Mudring: *Photostability of solution of fluorescent dyes in ionic liquids in the presence of an electron acceptors.* Ger. Offen. (2010) DE 10 2009 000 784.

P3. A.-V. Mudring, P.S. Campbell, J. Cybinska, P. Ghosh, C. Lorbeer, D. Pitz, N. von Prondzinski: *Polymerisierbare Ionische Flüssigkeiten für Photonische Anwendungen*. Ger. Offen. (2012) DE 10 2012 105 782.6.

P4. A.-V. Mudring, D. Prodius: *Separation of Terbium(III,IV) Oxide*, Provisional Patent, US 62184664, 2015, USA.

P5. A.-V. Mudring, D. Prodius: *Separation of Terbium(III,IV) Oxide*, Utility Patent, US 15/185,075, 2016, USA. Granted **Patent number:** 10029920

P6. A.-V. Mudring, D. Prodius: *Separating Rare Earth Oxalates*, Provisional Patent Application, US 62/494,101, 2016, USA

P7. A.-V. Mudring, Ikenna C. Nbeledim, D. Prodius: *Dissolution and Separation of Rare Earth Metals*, US Provisional Patent Application, US 62/495,211, 2016, USA.

P8. A.-V. Mudring, Ikenna C. Nbeledim, D. Prodius: *Dissolution and Separation of Rare Earth Metals*, US Provisional Patent Application, United States provisional application Ser. No. 62/495,211, 2016, USA. Publication number: 20180312941