

List of Publications

- [1] T. Goebel, Yu. Prots, A. Ormeci, O. Pecher, F. Haarmann. Synthesis, Crystal Structure and Chemical Bonding of the Zintl Phase Rb_7NaSi_8 . *Z. anorg. allg. Chem.* **637(13)**, 1982–1991 (2011). ISSN 1521-3749. doi:10.1002/zaac.201100349.
- [2] F. Haarmann. Disorder in crystalline compounds investigated by a combination of X-ray diffraction, NMR spectroscopy, and DFT calculations. *Z. Krist.* **31**, 35 (2011). doi:10.1524/zksu.2011.0000.
- [3] F. Haarmann. Quadrupolar NMR of Intermetallic Compounds. In R. K. Harris, R. E. Wasylshen, Herausgeber, *Encyclopedia of Magnetic Resonance*, Volume in press. John Wiley & Sons, Ltd, Chichester (2011).
- [4] F. Haarmann, K. Koch, P. Jeglič, O. Pecher, H. Rosner, Yu. Grin. NMR spectroscopy of Intermetallic Compounds: An Experimental and Theoretical Approach to Local Atomic Arrangements in Binary Gallides. *Chem. Eur. J.* **17(27)**, 7560–7568 (2011). ISSN 1521-3765. doi:10.1002/chem.201003486.
- [5] D. Bräunling, O. Pecher, D. M. Trots, A. Senyshyn, D. A. Zhrebtsov, F. Haarmann, R. Niewa. Synthesis, Crystal Structure and Lithium Motion of Li_8SeN_2 and Li_8TeN_2 . *Z. anorg. allg. Chem.* **636(6)**, 936–946 (2010).
- [6] G. Glatz, T. Schmalz, T. Kraus, F. Haarmann, G. Motz, R. Kempe. Copper-Containing SiCN Precursor Ceramics (Cu@SiCN) as Selective Hydrocarbon Oxidation Catalysts Using Air as an Oxidant. *Chem. Eur. J.* **16(14)**, 4231–4238 (2010).
- [7] P. Jeglič, S. Vrtnik, M. Bobnar, M. Klanjšek, B. Bauer, P. Gille, Yu. Grin, F. Haarmann, J. Dolinšek. $M\text{-Al-M}$ groups trapped in cages of Al_{13}M_4 ($M = \text{Co}, \text{Fe}, \text{Ni}, \text{Ru}$) complex intermetallic phases as seen via NMR. *Phys. Rev. B* **82(10)**, 104201–1/10 (2010).
- [8] M. W. Müller, D. Hirsemann, F. Haarmann, J. Senker, J. Breu. Facile Scalable Synthesis of Rectorites. *Chem. Mater.* **22(1)**, 186–196 (2010).
- [9] O. Pecher, F. Haarmann. $\text{Sr}_{1-x}\text{Ba}_x\text{Ga}_2$: NMR Spectroscopy. *Z. anorg. allg. Chem.* **636(11)**, 2089 (2010).

- [10] O. Pecher, S.-T. Kong, T. Goebel, V. Nickel, K. Weichert, C. Reiner, H.-J. Deiseroth, J. Maier, F. Haarmann, D. Zahn. Atomistic Characterization of Li⁺ Mobility and Conductivity in Li_{7-x}PS_{6-x}I_x Argyrodites from Molecular Dynamics Simulations, Solid-State NMR and Impedance Spectroscopy. *Chem. Eur. J.* **16(28)**, 8347–8354 (2010).
- [11] T. Goebel, F. Haarmann. Solid state NMR spectroscopic investigations of the local structure in binary and ternary alkali metal silicides (M_{1-x}M'_x)₄Si₄ (M, M' = K, Rb, Cs; 0 ≤ x ≤ 1). *Z. Kristallogr. Suppl.* **29**, 13 (2009).
- [12] T. Goebel, Yu. Prots, F. Haarmann. Refinement of the crystal structure of dibarium tetrasilicide, Ba₂Si₄. *Z. Kristallogr. NCS* **224**, 7–8 (2009).
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- [16] J. V. Zaikina, K. A. Kovnir, U. Burkhardt, W. Schnelle, F. Haarmann, U. Schwarz, Yu. Grin, A. V. Shevelkov. Cationic Clathrate I Si_{46-x}P_xTe_y (6.6(1) ≤ y ≤ 7.5(1), x ≤ 2y): Crystal Structure, Homogeneity Range, and Physical Properties. *Inorg. Chem.* **48(8)**, 3720 – 3730 (2009).
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