

Ammonothermal Synthesis of Luminescent Imidonitridophosphate $\text{Ba}_4\text{P}_4\text{N}_8(\text{NH})_2:\text{Eu}^{2+}$

F.M. Engelsberger, R.M. Pritzl, J. Steinadler, K. Witthaut, T. Bräuniger, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2024**, e202402743

$\text{ZnH}_2\text{P}_4\text{N}_8$: Case Study on Topochemical Imidonitridophosphate High-Pressure Synthesis

R.M. Pritzl, J. Steinadler, A.T. Buda, S. Wendl, W. Schnick
Chem. Eur. J. **2024**, e202402741

$\text{P}_{1-x}\text{Ta}_{8+x}\text{N}_{13}$ ($x = 0.1-0.15$): A Phosphorus Tantalum Nitride Featuring Mixed-Valent Tantalum and P/Ta Disorder Visualized by Scanning Transmission Electron Microscopy

M.M. Pointner, C. Ceniza, L. Nusser, K. Witthaut, F. Wolf, M. Weidemann, L. Eisenburger, A. Moewes, O. Oeckler, W. Schnick
Angew. Chem. **2024**, e202411441; *Angew. Chem. Int. Ed.* **2024**, e202411441

CaLi_2PN_3 – A Quaternary Chain-Type Nitridophosphate by Medium-Pressure Synthesis

R.M. Pritzl, N. Fahle, K. Witthaut, S. Wendl, W. Schnick
Chem. Eur. J. **2024**, e202402521

Synthesis and Comprehensive Studies of Be-IV-N_2 (IV = Si, Ge):

Solving the Mystery of Wurtzite-type $\text{Pmc}2_1$ Structures

G. Krach, K. Witthaut, J. Steinadler, T. Bräuniger, V. Milman, L. Bayarjargal, B. Winkler, E. Bykova, M. Bykov, W. Schnick
Angew. Chem. **2024**, 136, e202409593; *Angew. Chem. Int. Ed.* **2024**, 63, e202409593

Ammonothermal Synthesis and Crystal Structure of the Ternary Amide $\text{Na}_2\text{Ba}(\text{NH}_2)_4$

F.M. Engelsberger, K. Witthaut, W. Schnick
Z. Anorg. Allg. Chem. **2024**, 650, e202400053

Trigonal Planar $[\text{PN}_3]^{4-}$ Anion in the Nitridophosphate Oxide $\text{Ba}_3[\text{PN}_3]\text{O}$

R.M. Pritzl, K. Witthaut, M. Dialer, A.T. Buda, V. Milman, L. Bayarjargal, B. Winkler, W. Schnick
Angew. Chem. **2024**, 136, e202405849; *Angew. Chem. Int. Ed.* **2024**, 63, e202405849

On Tautomerism and Amphoterism: An In-Depth Structural and Physicochemical Characterization of Ammeline and Some of Its Salts

T.J. Koller, S.M.J. Endraß, M. Rösch, K. Witthaut, T.M. Klapötke, W. Schnick
Angew. Chem. **2024**, 136, e202404927; *Angew. Chem. Int. Ed.* **2024**, 63, e202404927

Mixed Tin Valence in the Tin(II/IV)-Nitridophosphate $\text{Sn}_3\text{P}_8\text{N}_{16}$

S.J. Ambach, A. Koldemir, K. Witthaut, S. Kreiner, T. Bräuniger, R. Pöttgen, W. Schnick
Chem. Eur. J. **2024**, 30, e202401428

High-pressure Synthesis of Ultra-incompressible, Hard and Superconducting Tungsten Nitrides

A. Liang, I. Osmond, G. Krach, L.-T. Shi, L. Brüning, U. Ranieri, J. Spender, F. Tasnadi, B. Massani, C.R. Stevens, R.S. McWilliams, E. Lawrence Bright, N. Giordano, S. Gallego-Parra, Y. Yin, A. Aslandukov, F.I. Akbar, E. Gregoryanz, A. Huxley, M. Peña-Alvarez, J.-G. Si, W. Schnick, M. Bykov, F. Trybel, D. Laniel
Adv. Funct. Mater. **2024**, 34, 2313819

Order and Disorder in Mixed (Si, P)-N Networks $\text{Sr}_2\text{SiP}_2\text{N}_6:\text{Eu}^{2+}$ and $\text{Sr}_5\text{Si}_2\text{P}_6\text{N}_{16}:\text{Eu}^{2+}$

M. Dialer, M.M. Pointner, S.L. Wandelt, P. Strobel, P.J. Schmidt, L. Bayarjargal, B. Winkler, W. Schnick
Adv. Optical Mater. **2024**, 12, 2302668

Highly Condensed and Super-Incompressible Be_2PN_3

G. Krach, J. Steinadler, K. Witthaut, W. Schnick
Angew. Chem. **2024**, 136, e202404953; *Angew. Chem. Int. Ed.* **2024**, 63, e202404953

Ammonothermal Synthesis and Solid-State MAS NMR Study of the Imidonitridosilicate $\text{Rb}_3\text{Si}_6\text{N}_5(\text{NH})_6$

F.M. Engelsberger, T.G. Chau, T. Bräuniger, W. Schnick
Chem. Eur. J. **2024**, *30*, e202401238

Green-Emitting Oxonitridoberyllosilicate $\text{Ba}[\text{BeSiON}_2]:\text{Eu}^{2+}$ for Wide Gamut Displays

T. Giffthaler, P. Strobel, V. Weiler, A. Haffner, A. Neuer, J. Steinadler, T. Bräuniger, S.D. Kloß, S. Rudel, P.J. Schmidt, W. Schnick
Adv. Optical Mater. **2024**, *12*, 2302343

Building Nitridic Networks with Phosphorus and Germanium – from $\text{Ge}^{\text{II}}\text{P}_2\text{N}_4$ to $\text{Ge}^{\text{IV}}\text{PN}_3$

S.J. Ambach, G. Krach, E. Bykova, K. Witthaut, N. Giordano, M. Bykov, W. Schnick
Inorg. Chem. **2024**, *63*, 8502

Tunable Narrow-Band Cyan-Emission of Eu^{2+} -doped Nitridomagnesophosphates

$\text{Ba}_{3-x}\text{Sr}_x[\text{Mg}_2\text{P}_{10}\text{N}_{20}]:\text{Eu}^{2+}$ ($x = 0-3$)

R.M. Pritzl, M.M. Pointner, K. Witthaut, P. Strobel, P.J. Schmidt, W. Schnick
Angew. Chem. **2024**, *136*, e202403648; *Angew. Chem. Int. Ed.* **2024**, *63*, e202403648

Super-Tunable LaSi_3N_5 Structure Type: Insights into the Structure and Luminescence of $\text{SrSi}_2\text{PN}_5:\text{Eu}^{2+}$

M. Dialer, R.M. Pritzl, S.L. Wandelt, D. Khalyavin, P.J. Schmidt, W. Schnick
Chem. Mater. **2024**, *36*, 3933

Multicationic Tetrahedra Networks: Alkaline-Earth-Centered Polyhedra and Non-Condensed AlN_6 -Octahedra in the Imido-nitridophosphates $\text{AE}_2\text{AlP}_8\text{N}_{15}(\text{NH})$ ($\text{AE} = \text{Ca}, \text{Sr}, \text{Ba}$)

M.M. Pointner, R.M. Pritzl, J.M. Albrecht, L. Blahusch, J.P. Wright, E. Lawrence Bright, C. Giacobbe, O. Oeckler, W. Schnick
Chem. Eur. J. **2024**, *30*, e202400766

Investigating the Electronic Properties of Novel Titanium Oxonitridophosphate $\text{Ti}_5\text{P}_{12}\text{N}_{24}\text{O}_2$, through Structural Distortions at the Titanium Sites

P. Ufondu, T.D. Boyko, M.M. Pointner, L. Eisenburger, W. Schnick, A. Moewes
J. Mater. Chem. C **2024**, *12*, 4392

Reduction of Germanium Oxides - The Mixed-Valence Germanates $\text{A}_2\text{Ge}_4\text{O}_7$ ($\text{A} = \text{Na}, \text{K}$)

T.G. Chau, S.S. Rudel, H. Illner, K. Witthaut, L. Bayarjargal, B. Winkler, W. Schnick
Inorg. Chem. **2024**, *63*, 5227

$\text{Cr}_{5.7}\text{Si}_{2.3}\text{P}_8\text{N}_{24}$ – A Chromium(+IV) Nitridosilicate Phosphate with Amphibole-Type Structure

M.M. Pointner, K.R. Fisher, M. Weidemann, F. Wolf, J. Wright, E. Lawrence Bright, C. Giacobbe, O. Oeckler, W. Schnick
Angew. Chem. **2024**, *136*, e202401421; *Angew. Chem. Int. Ed.* **2024**, *63*, e202401421

The Critical Role of Anharmonic Lattice Dynamics for Macroscopic Properties of the Visible Light Absorbing Nitride Semiconductor CuTaN_2

F.S. Hegner, A. Cohen, S.S. Rudel, S. Kronawitter, M. Grumet, X. Zhu, R. Korobko, L. Houben, C.-M. Jiang, W. Schnick, G. Kieslich, O. Yaffe, I.D. Sharp, D.A. Egger
Adv. Energy Mater. **2024**, *14*, 2303059

The Fundamental Disorder Unit in (Si, P)–(O, N) Networks

M. Dialer, K. Witthaut, T. Bräuniger, P.J. Schmidt, W. Schnick
Angew. Chem. **2024**, *136*, e202401419; *Angew. Chem. Int. Ed.* **2024**, *63*, e202401419

**Simple Molecules under High-Pressure and High-Temperature Conditions:
Synthesis and Characterization of α - and β -C(NH)₂ with Fully sp³-Hybridized Carbon**

T.J. Koller, S. Jin, V. Krol, S.J. Ambach, U. Ranieri, S. Khandarkhaeva, J. Spender,
S. McWilliams, F. Trybel, N. Giordano, T. Poreba, M. Mezouar, X. Kuang, C. Lu,
L. Dubrovinsky, N. Dubrovinskaia, A. Hermann, W. Schnick, D. Laniel
Angew. Chem. **2024**, 136, e202318214; *Angew. Chem. Int. Ed.* **2024**, 63, e202318214

**Nitride Synthesis Under High-pressure High-temperature Conditions:
Unprecedented *in-situ* Insight into the Reaction Mechanism**

S.J. Ambach, R.M. Pritzl, S. Bhat, R. Farla, W. Schnick
Inorg. Chem. **2024**, 63, 3535

**A Theoretical Spectroscopy Study of the Photoluminescent Properties of Narrow Band
Eu²⁺-doped Phosphors Containing Multiple Candidate Doping Centers.
Prediction of an Unprecedented Narrow Band Red Phosphor**

R. Shafei, P.J. Strobel, P.J. Schmidt, D. Maganas, W. Schnick, F. Neese
Phys. Chem. Chem. Phys. **2024**, 26, 6277

(Dis)Order and Luminescence in Silicon-Rich (Si,P)–N Network Sr₅Si₇P₂N₁₆:Eu²⁺

M. Dialer, M.M. Pointner, P. Strobel, P.J. Schmidt, W. Schnick
Inorg. Chem. **2024**, 63, 1480

Ba₁₂[BN₂]_{6.67}H₄ – A Disordered Anti-Skutterudite Filled with Nitridoborate Anions

S.L. Wandelt, A. Mutschke, D. Khalyavin, J. Steinadler, A.J. Karttunen, W. Schnick
Angew. Chem. **2024**, 136, e202316469; *Angew. Chem. Int. Ed.* **2024**, 63, e202316469

Synthesis of Ultra-Incompressible and Recoverable Carbon Nitrides Featuring CN₄ Tetrahedra

D. Laniel, F. Trybel, A. Aslandukov, S. Khandarkhaeva, T. Fedotenko, Y. Yin, N. Miyajima, F. Tasnádi,
A.V. Ponomareva, N. Jena, F.I. Akbar, B. Winkler, A. Néri, S. Chariton, V. Prakapenka, V. Milman,
W. Schnick, A.N. Rudenko, M.I. Katsnelson, I.A. Abrikosov, L. Dubrovinsky, N. Dubrovinskaia
Adv. Mater. **2024**, 36, 2308030

Blue Emitting SrBe_{1-x}Si_{2+x}O_{3-2x}N_{2+2x}:Eu²⁺ (x ≈ 0.1)

T. Gifftthaler, M. Dialer, P. Strobel, P.J. Schmidt, W. Schnick
Z. Anorg. Allg. Chem. **2024**, 650, e202300208

Please Mind the Gap: Highly Condensed P–N Networks in LiP₄N₇ and Li_{3-x}P₆N_{11-x}(NH)_x

S. Schneider, S. Klenk, S.D. Kloß, W. Schnick
Chem. Eur. J. **2024**, 30, e202303251

**Discovery of Multi-anion Antiperovskites X₆NFSn₂ (X = Ca, Sr) as Promising Thermoelectric
Materials by Computational Screening**

D. Han, B. Zhu, Z. Cai, K.B. Spooner, S.S. Rudel, W. Schnick, T. Bein, D.O. Scanlon, H. Ebert
Matter **2024**, 7, 158

**Combining Nitridoborates, Nitrides and Hydrides – Synthesis and Characterization
of the Multianionic Sr₆N[BN₂]₂H₃**

S.L. Wandelt, A. Mutschke, D. Khalyavin, R. Calaminus, J. Steinadler, B.V. Lotsch, W. Schnick
Angew. Chem. **2023**, 135, e202313564; *Angew. Chem. Int. Ed.* **2023**, 62, e202313564

Synthesis and Crystal Structure of Silicon Pernitride SiN₂ at 140 GPa

P.L. Jurzick, G. Krach, L. Brüning, W. Schnick, M. Bykov
Acta. Crystallogr. **2023**, E79, 923

**Finding Order in Disorder: The Highly Disordered Lithium Oxonitridophosphate
Double Salt Li_{8+x}P₃O_{10-x}N_{1+x} (x = 1.4(5))**

S. Schneider, S. Kreiner, L.G. Balzat, B.V. Lotsch, W. Schnick
Chem. Eur. J. **2023**, 29, e202301986

Tetra-Face-Capped Octahedra in a Tetrahedra Network – Structure Determination and Scanning Transmission Electron Microscopy of $\text{SrAl}_5\text{P}_4\text{N}_{10}\text{O}_2\text{F}_3$

M.M. Pointner, O. Oeckler, W. Schnick
Chem. Eur. J. **2023**, *29*, e202301960

High-Pressure Synthesis, Crystal Structure, and Characterization of the New Non-Centrosymmetric Terbium Borate $\text{Tb}_3\text{B}_{10}\text{O}_{17}(\text{OH})_5$

T.A. Teichtmeister, C. Paulsen, S.J. Ambach, M.K. Reimann, K. Wurst, L. Bayarjargal, R. Pöttgen, W. Schnick, H. Huppertz
J. Solid State Chem. **2023**, *325*, 124170

A Novel Nitridoborate Hydride $\text{Sr}_{13}(\text{BN}_2)_6\text{H}_8$ Elucidated from X-Ray and Neutron Diffraction Data

S.L. Wandelt, A. Mutschke, D. Khalyavin, J. Steinadler, W. Schnick
Chem. Eur. J. **2023**, *29*, e202301241

From Framework to Layers Driven by Pressure – The Monophyllo-Oxonitridophosphate $\beta\text{-MgSrP}_3\text{N}_5\text{O}_2$ and Comparison to its α -Polymorph

R.M. Pritzl, N. Prinz, P. Strobel, P.J. Schmidt, D. Johrendt, W. Schnick
Chem. Eur. J. **2023**, *29*, e202301218

Oxonitridoberyllosilicate Phosphors

T. Gifftaler, P.-J. Strobel, P.J. Schmidt, H.-H. Bechtel, W. Schnick
PCT Int. Appl. **2023**, WO2023107239 (A1), 2023-06-15
Lumileds LLC, Ludwig-Maximilians-Universität München

Combining MN_6 Octahedra and PN_5 Trigonal Bipyramids in the Mica-like Nitridophosphates MP_6N_{11} ($M = \text{Al}, \text{In}$)

S.J. Ambach, M. Pointner, S. Falkai, C. Paulmann, O. Oeckler, W. Schnick
Angew. Chem. **2023**, *135*, e202303580; *Angew. Chem. Int. Ed.* **2023**, *62*, e202303580

The Importance of Lone Pairs to Structure and Bonding of the Novel Germanium Nitridophosphate GeP_2N_4

T. de Boer, C. Somers, T. Boyko, S. Ambach, L. Eisenburger, W. Schnick, A. Moewes
J. Mater. Chem. A **2023**, *11*, 6198

Comprehensive Investigation of Anion Species in Crystalline Li^+ -ion Conductor $\text{Li}_{27-x}[\text{P}_4\text{O}_{7+x}\text{N}_{9-x}]\text{O}_3$ ($x \approx 1.9(3)$)

S. Schneider, E.-M. Wendinger, V. Baran, A.-K. Hatz, B.V. Lotsch, M. Nentwig, O. Oeckler, T. Bräuniger, W. Schnick
Chem. Eur. J. **2023**, *29*, e202300174

Modular Principle for Complex Disordered Tetrahedral Frameworks in Quenched High-pressure Phases of Phosphorus Oxide Nitrides

D. Günther, D. Baumann, W. Schnick, O. Oeckler
Chem. Eur. J. **2023**, *29*, e202203892

Structure Determination of Crystalline LiPON Model Structure $\text{Li}_{5+x}\text{P}_2\text{O}_{6-x}\text{N}_{1+x}$ with $x \approx 0.9$

S. Schneider, L.G. Balzat, B.V. Lotsch, W. Schnick
Chem. Eur. J. **2023**, *29*, e202202984

Structural Influence of Lone Pairs in GeP_2N_4 , a Germanium(II) Nitridophosphate

S.J. Ambach, C. Somers, T. de Boer, L. Eisenburger, A. Moewes, W. Schnick
Angew. Chem. **2023**, *135*, e202215393; *Angew. Chem. Int. Ed.* **2023**, *62*, e202215393

Sodalite-type $\text{Ga}_{16/3}[\text{P}_{12}\text{N}_{24}]\text{O}_2$: Synthesis, Electron Crystallography and Powder X-ray Diffraction

D. Günther, L. Eisenburger, W. Schnick, O. Oeckler
Z. Anorg. Allg. Chem. **2022**, *648*, e202200280

Revealing Phosphorus Nitrides up to the Megabar Regime: Synthesis of α -P₃N₅, δ -P₃N₅ and PN₂

D. Laniel, F. Trybel, A. Néri, Y. Yin, A. Aslandukov, T. Fedotenko, S. Khandarkhaeva, F. Tasnádi, S. Chariton, C. Giacobbe, E. Lawrence Bright, M. Hanfland, V. Prakapenka, W. Schnick, I.A. Abrikosov, L. Dubrovinsky, N. Dubrovinskaia
Chem. Eur. J. **2022**, *28*, e202201998

Strontium Nitridoborate Hydride Sr₂BN₂H, Verified by Single-Crystal X-ray and Neutron Powder Diffraction

S.L. Wandelt, A. Karnas, A. Mutschke, N. Kunkel, C. Ritter, W. Schnick
Inorg. Chem. **2022**, *61*, 12685

Bandgap and Electronic Structure of CaSiN₂: Experiment and Theory

T. de Boer, T.D. Boyko, C. Braun, W. Schnick, A. Moewes
Int. J. Appl. Ceram. Technol. **2022**, *20*, 197

Energy Levels of Eu²⁺ States in the Next-Generation LED-Phosphor SrLi₂Al₂O₂N₂:Eu²⁺

M. Ruhul Amin, P. Strobel, W. Schnick, P.J. Schmidt, A. Moewes
J. Mater. Chem. C **2022**, *10*, 9740

Synthesis and Luminescence Properties of Amber Emitting La-Sr[Si₁₀N₁₉O₃]:Eu²⁺ and Syntheses of the Substitutional Variants RE_{8-x}AE_x[Si₁₀N_{20-x}O_{2+x}]:Eu²⁺ with RE = La, Ce; AE = Ca, Sr, Ba; 0 ≤ x ≤ 2

L. Gamperl, P. Strobel, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2022**, *28*, e202200760

Electronic and Optical Properties of Eu²⁺-activated Narrow-Band Phosphors for Phosphor-Converted Light-Emitting Diode Applications: Insights from a Theoretical Spectroscopy Perspective

R. Shafei, D. Maganas, P.J. Strobel, P.J. Schmidt, W. Schnick, F. Neese
J. Am. Chem. Soc. **2022**, *144*, 8038

Band Gap and Electronic Structure of Defects in the Ternary Nitride BP₃N₆: Experiment and Theory

T. de Boer, M.F. Al Fattah, M.R. Amin, S.J. Ambach, S. Vogel, W. Schnick, A. Moewes
J. Mater. Chem. C **2022**, *10*, 6429

Self-doping Behavior and Cation Disorder in MgSnN₂

D. Han, S.S. Rudel, W. Schnick, H. Ebert
Phys. Rev. B **2022**, *105*, 125202

Discovery of Two Polymorphs of TiP₄N₈ Synthesized from Binary Nitrides

L. Eisenburger, V. Weippert, C. Paulmann, D. Johrendt, O. Oeckler, W. Schnick
Angew. Chem. **2022**, *134*, e202202014; *Angew. Chem. Int. Ed.* **2022**, *61*, e202202014

High-pressure Na₃(N₂)₄, Ca₃(N₂)₄, Sr₃(N₂)₄, and Ba(N₂)₃ Featuring Nitrogen Dimers with Noninteger Charges and Anion-driven Metallicity

D. Laniel, B. Winkler, T. Fedotenko, A. Aslandukova, A. Aslandukov, S. Vogel, T. Meier, M. Bykov, S. Chariton, K. Glazyrin, V. Milman, V. Prakapenka, W. Schnick, L. Dubrovinsky, N. Dubrovinskaia
Phys. Rev. Mater. **2022**, *6*, 023402

Inverse-tunable Red Luminescence and Electronic Properties of Nitridoberylloaluminates Sr_{2-x}Ba_x[BeAl₃N₅]:Eu²⁺ (x = 0–2)

E. Elzer, P. Strobel, V. Weiler, M.R. Amin, P.J. Schmidt, A. Moewes, W. Schnick
Chem. Eur. J. **2022**, *28*, e202104121

Nitridic Analogs of Micas AESi₃P₄N₁₀(NH)₂ (AE = Mg, Mg_{0.94}Ca_{0.06}, Ca, Sr)

L. Eisenburger, P. Strobel, P.J. Schmidt, T. Bräuniger, J. Wright, E. Lawrence Bright, C. Giacobbe, O. Oeckler, W. Schnick
Angew. Chem. **2022**, *134*, e202114902; *Angew. Chem. Int. Ed.* **2022**, *61*, e202114902

Missing Member in the $M^II M^III Si_4 N_7$ Compound Class: Carbothermal Reduction and Nitridation Synthesis Reveal Substitution of Nitrogen by Carbon and Oxygen in $CaLu[Si_4 N_{7-2x} C_x O_x]:Eu^{2+}/Ce^{3+}$ ($x \approx 0.3$)

L. Gamperl, O.E.O. Zeman, P. Strobel, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2022**, 28, e202104007

Detecting a Hierarchy of Deep-Level Defects in the Model Semiconductor $ZnSiN_2$

T. de Boer, J. Häusler, P. Strobel, T.D. Boyko, S. Rudel, W. Schnick, A. Moewes
J. Phys. Chem. C **2021**, 125, 27959

Comprehensive Band Gap and Electronic Structure Investigations of the Prominent Phosphors $M_2 Si_5 N_8:Eu^{2+}$ ($M=Ca, Sr, Ba$) Determined Using Soft X-ray Spectroscopy and Density Functional Theory

T.M. Tolhurst, C. Braun, W. Schnick, A. Moewes
J. Phys. Chem. C **2021**, 125, 25799

$Eu_3 Be_{22} N_{16} O$: A Highly Condensed Oxonitridoberyllate

E. Elzer, M. Weidemann, W. Schnick
Eur. J. Inorg. Chem. **2021**, 4979

Nitridophosphate Phosphors for Solid State Lighting and Method of Production

S. Wendl, P.-J. Schmidt, W. Schnick
PCT Int. Appl. **2021**, WO2021183847 (A1), 2021-09-16
Lumileds LLC

High-Pressure Synthesis of $Sc_5 P_{12} N_{23} O_3$ and $Ti_5 P_{12} N_{24} O_2$ by Activation of Binary Nitrides ScN and TiN with $NH_4 F$

L. Eisenburger, V. Weippert, O. Oeckler, W. Schnick
Chem. Eur. J. **2021**, 27, 14184

Structure Elucidation of Complex Endotaxially Intergrown Lanthanum Barium Oxonitridosilicate Oxides by Combination of Microfocused Synchrotron Radiation and Transmission Electron Microscopy

L. Gamperl, L. Neudert, P. Schultz, D. Durach, W. Schnick, O. Oeckler
Chem. Eur. J. **2021**, 27, 12835

Unraveling the Energy Levels of Eu^{2+} Ions in $MBe_{20} N_{14}:Eu^{2+}$ ($M = Sr, Ba$) Phosphors

M.R. Amin, E. Elzer, W. Schnick, A. Moewes
J. Phys. Chem. C **2021**, 125, 11828

Synthesis of the Scandium Chloride Hydrates $ScCl_3 \cdot 3 H_2 O$ and $Sc_2 Cl_4 (OH)_2 \cdot 12 H_2 O$ and their Characterisation by X-Ray Diffraction, ^{45}Sc NMR Spectroscopy and DFT Calculations

T. Bräuniger, P. Bielec, O.E.O. Zeman, I.L. Moudrakovski, C. Hoch, W. Schnick
Z. Naturforsch. B **2021**, 76, 217

Electronic Properties of Semiconducting $Zn(Si, Ge, Sn)N_2$ Alloys

M. Ogura, D. Han, M. Pointner, L. Junkers, S.S. Rudel, W. Schnick, H. Ebert
Phys. Rev. Mater. **2021**, 5, 024601

High-Pressure High-Temperature Synthesis of Mixed Nitridosilicatephosphates and Luminescence of $AE Si P_3 N_7:Eu^{2+}$ ($AE = Sr, Ba$)

L. Eisenburger, O. Oeckler, W. Schnick
Chem. Eur. J. **2021**, 27, 4461

Synthesis, Crystal Structure and Structure-property Relations of Strontium Orthocarbonate $Sr_2 CO_4$

D. Laniel, J. Binck, B. Winkler, S. Vogel, T. Fedotenko, S. Chariton, V. Prakapenka, V. Milman, W. Schnick, L. Dubrovinsky, N. Dubrovinskaia
Acta Crystallogr. B **2021**, B77, 131

Synthesis of Nitride Zeolites in a Hot Isostatic Press

S. Wendl, M. Zipkat, P. Strobel, P.J. Schmidt, W. Schnick
Angew. Chem. **2021**, 133, 4520; *Angew. Chem. Int. Ed.* **2021**, 60, 4470

Aus blau wird weiß – Beitrag der Chemie zu einer nachhaltigen Beleuchtung

D. Diekemper, W. Schnick, S. Schwarzer
Chemkon. **2021**, 28, 341

Post-Synthetic Modification: Systematic Study on a Simple Access to Nitridophosphates

S. Wendl, L. Seidl, P. Schüler, W. Schnick
Angew. Chem. **2020**, 132, 23785; *Angew. Chem. Int. Ed.* **2020**, 59, 23579

**Illuminating Nitridoberyllaluminates: The Highly Efficient Red-Emitting Phosphor
 $\text{Sr}_2[\text{BeAl}_3\text{N}_5]:\text{Eu}^{2+}$**

E. Elzer, P. Strobel, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Mater. **2020**, 32, 6611

HIP to be Square: Simplifying Nitridophosphate Synthesis in a Hot Isostatic Press

S. Wendl, S. Mardazad, P. Strobel, P.J. Schmidt, W. Schnick
Angew. Chem. **2020**, 132, 18397; *Angew. Chem. Int. Ed.* **2020**, 59, 18240

**Electronic Structure Investigation of Wide Band Gap Semiconductors - Mg_2PN_3 and Zn_2PN_3 :
Experiment and Theory**

M.F. Al Fattah, M.R. Amin, M. Mallmann, S. Kasap, W. Schnick, A. Moewes
J. Phys.: Condens. Matter **2020**, 32, 405504

**Understanding of Luminescence Properties Using Direct Measurements on Eu^{2+} -doped
Wide Bandgap Phosphors**

M.R. Amin, P. Strobel, A. Qamar, T. Gifftthaler, W. Schnick, A. Moewes
Adv. Optical Mater. **2020**, 8, 2000504

**Nitridophosphate-Based Ultra-Narrow-Band Blue-Emitters: Luminescence Properties
of $\text{AEP}_8\text{N}_{14}:\text{Eu}^{2+}$ ($\text{AE} = \text{Ca}, \text{Sr}, \text{Ba}$)**

S. Wendl, L. Eisenburger, P. Strobel, D. Günther, J.P. Wright, P.J. Schmidt, O. Oeckler, W. Schnick
Chem. Eur. J. **2020**, 26, 7292

**Ammonothermal Synthesis and Crystal Growth of the Chain-type Oxonitridosilicate
 $\text{Ca}_{1+x}\text{Y}_{1-x}\text{SiN}_{3-x}\text{O}_x$ ($x > 0$)**

M. Mallmann, C. Maak, W. Schnick
Z. Anorg. Allg. Chem. **2020**, 646, 1539

$\text{Sr}_3\text{P}_3\text{N}_7$: Complementary Approach by Ammonothermal and High-Pressure Syntheses

M. Mallmann, S. Wendl, P. Strobel, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2020**, 26, 6257

**Ammonothermal Synthesis of $\text{Ba}_2\text{PO}_3\text{N}$ – An Oxonitridophosphate with
Non-Condensed PO_3N -Tetrahedra**

S. Wendl, M. Mallmann, P. Strobel, P.J. Schmidt, W. Schnick
Eur. J. Inorg. Chem. **2020**, 841

**Facile One-step Synthesis of $\text{Zn}_{1-x}\text{Mn}_x\text{SiN}_2$ Nitride Semiconductor Solid Solutions
via Solid-state Metathesis Reaction**

O.E.O. Zeman, F.O. von Rohr, L. Neudert, W. Schnick
Z. Anorg. Allg. Chem. **2020**, 646, 228

$\text{BaP}_6\text{N}_{10}\text{NH}:\text{Eu}^{2+}$ as a Case Study - An Imidonitridophosphate Showing Luminescence

S. Wendl, L. Eisenburger, M. Zipkat, D. Günther, J.P. Wright, P.J. Schmidt, O. Oeckler, W. Schnick
Chem. Eur. J. **2020**, 26, 5010

High-pressure Synthesis of Cyclic Phosphazenes by Near-UV Photo-induced Reactivity of NH₃ and Elemental Phosphorus

D. Scelta, A. Baldassarre, M. Serrano-Ruiz, A. Marchuk, S. Vogel, W. Schnick, M. Peruzzini, R. Bini, M. Ceppatelli
J. Phys. Chem. C **2020**, 124, 4308

Synthesis and Crystal Structure of Strontium Beryllate Sr₃Be₂O₅

T. Giffthaler, P. Strobel, W. Schnick
Z. Anorg. Allg. Chem. **2020**, 646, 103

Crystalline Nitridophosphates by Ammonothermal Synthesis

M. Mallmann, S. Wendl, W. Schnick
Chem. Eur. J. **2020**, 26, 2067

Nitride Spinel: An Ultraincompressible High-Pressure Form of BeP₂N₄

S. Vogel, M. Bykov, E. Bykova, S. Wendl, S.D. Kloß, A. Pakhomova, N. Dubrovinskaia, L. Dubrovinsky, W. Schnick
Angew. Chem. **2020**, 132, 2752; *Angew. Chem. Int. Ed.* **2020**, 59, 2730

Synthesis of RE_{6-x}Ca_{1.5x}Si₁₁N₂₀O (RE = Yb, Lu; x ≈ 2.2) with Lu_{6-x}Ca_{1.5x}Si₁₁N₂₀O:Ce³⁺ Offering Interesting Spectral Properties for Yellow-Emitting Phosphors in 1pcLEDs

L. Gamberl, G. Krach, P.J. Schmidt, W. Schnick
Eur. J. Inorg. Chem. **2019**, 4985

Microwave Synthesis of a Prominent LED Phosphor for School Students: Chemistry's Contribution to Sustainable Lighting

D. Diekemper, W. Schnick, S. Schwarzer
J. Chem. Edu. **2019**, 96, 3018

Solid Solutions of Grimm-Sommerfeld Analogous Nitride Semiconductors II-IV-N₂ (II = Mg, Mn, Zn; IV = Si, Ge): Ammonothermal Synthesis and DFT Calculations

M. Mallmann, R. Niklaus, T. Rackl, M. Benz, T.G. Chau, D. Johrendt, J. Minár, W. Schnick
Chem. Eur. J. **2019**, 25, 15887

The Long-periodic Loop-branched Chain Structure of the Oxonitridophosphate La₂₁P₄₀O₄₆N₅₇, Elucidated by a Combination of TEM and Microfocused Synchrotron Radiation

M. Nentwig, S.D. Kloß, L. Neudert, L. Eisenburger, W. Schnick, O. Oeckler
Chem. Eur. J. **2019**, 25, 14382

Luminescent Materials

P.-J. Strobel, P.J. Schmidt, W. Schnick
PCT Int. Appl. **2019**, US2019322932 (A1), 2019-10-24
Lumileds Holding BV, Ludwig-Maximilians-Universität München

Wavelength Converting Material for a Light Emitting Device

P.J. Schmidt, P.-J. Strobel, W. Schnick
PCT Int. Appl. **2019**, WO 2019141582 A1, 20190725
Lumileds Holding BV, Ludwig-Maximilians-Universität München

High-pressure Synthesis of Ultraincompressible Hard Rhenium Nitride Pernitride Re₂(N₂)(N)₂ Stable at Ambient Conditions

M. Bykov, S. Chariton, H. Fei, T. Fedotenko, G. Aprilis, A.V. Ponomareva, F. Tasnádi, I.A. Abrikosov, B. Merle, P. Feldner, S. Vogel, W. Schnick, V.B. Prakapenka, E. Greenberg, M. Hanfland, A. Pakhomova, H.-P. Liermann, T. Katsura, N. Dubrovinskaia, L. Dubrovinsky
Nat. Commun. **2019**, 10, 2994

Boron Phosphorus Nitride at Extremes: PN_6 Octahedra in the High-Pressure Polymorph $\beta\text{-BP}_3\text{N}_6$

S. Vogel, M. Bykov, E. Bykova, S. Wendl, S.D. Kloß, A. Pakhomova, S. Chariton, E. Koemets, N. Dubrovinskaia, L. Dubrovinsky, W. Schnick
Angew. Chem. **2019**, *131*, 9158; *Angew. Chem. Int. Ed.* **2019**, *58*, 9060

Nitridophosphates: A Success Story of Nitride Synthesis

S.D. Kloß, W. Schnick
Angew. Chem. **2019**, *131*, 8015; *Angew. Chem. Int. Ed.* **2019**, *58*, 7933

Ab Initio Exploration and Prediction of AE-containing Nitrido(litho/magneso)tetrelates (AE = Ca, Sr; Tt = Si, Ge) with $[\text{Si}_2\text{N}_6]^{10-}$ or $[\text{Ge}_2\text{N}_6]^{10-}$ -units

R. Niklaus, J. Minár, P. Strobel, P.J. Schmidt, W. Schnick
Dalton Trans. **2019**, *48*, 8671

Author Profile - Prof. Dr. Wolfgang Schnick

Angew. Chem. **2019**, *131*, 6882; *Angew. Chem. Int. Ed.* **2019**, *58*, 6810

A Quaternary Core-Shell Oxynitride Nanowire Photoanode Containing a Hole-Extraction Gradient for Photoelectrochemical Water Oxidation

Z. Ma, T. Thersleff, A. Görne, N. Cordes, Y. Liu, S. Jakobi, A. Rokicinska, Z. Schichtl, R. Coridan, P. Kuśtrowski, W. Schnick, R. Dronskowski, A. Slabon
ACS Appl. Mater. Interfaces **2019**, *11*, 19077

Ammonothermal Crystal Growth of ATaN_2 with A = Na, K, Rb, and Cs and their Optical and Electronic Properties

N. Cordes, R. Niklaus, W. Schnick
Cryst. Growth Des. **2019**, *19*, 3484

From Heptazines to Triazines – On the Formation of Poly(triazine imide)

F.K. Kessler, W. Schnick
Z. Anorg. Allg. Chem. **2019**, *645*, 857

Ammelinium Sulfate Monohydrate and Ammelinium Sulfate Cyanuric Acid – Synthesis and Structural Characterization

F.K. Kessler, W. Schnick
Z. Anorg. Allg. Chem. **2019**, *645*, 848

Melamium Thiocyanate Melam, a Melamium Salt with Disordered Anion Sites

F.K. Kessler, A.M. Schuhbeck, W. Schnick
Z. Anorg. Allg. Chem. **2019**, *645*, 840

Structure Elucidation of a Melam-Melem Adduct by a Combined Approach of Synchrotron X-ray Diffraction and DFT Calculations

F.K. Kessler, A.M. Burow, G. Savasci, T. Rosenthal, P. Schultz, E. Wirnhier, O. Oeckler, C. Ochsenfeld, W. Schnick
Chem. Eur. J. **2019**, *25*, 8415

$M\text{Be}_{20}\text{N}_{14}:\text{Eu}^{2+}$ (M = Sr, Ba): Highly Condensed Nitridoberyllates with Exceptional Highly Energetic Eu^{2+} Luminescence

E. Elzer, R. Niklaus, P.J. Strobel, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Mater. **2019**, *31*, 3174

Open-shell 3d Transition Metal Nitridophosphates $M^{\text{II}}\text{P}_8\text{N}_{14}$ (M^{II} = Fe, Co, Ni) by High-pressure Metathesis

S.D. Kloß, O. Janka, T. Block, R. Pöttgen, R. Glaum, W. Schnick
Angew. Chem. **2019**, *131*, 4733; *Angew. Chem. Int. Ed.* **2019**, *58*, 4685

Ammonothermal Synthesis of the Mixed-Valence Nitrogen-Rich Europium Tantalum Ruddlesden-Popper Phase $\text{Eu}^{\text{II}}\text{Eu}^{\text{III}}_2\text{Ta}_2\text{N}_4\text{O}_3$

N. Cordes, M. Nentwig, L. Eisenburger, O. Oeckler, W. Schnick
Eur. J. Inorg. Chem. **2019**, 2304

$\text{Y}_{23}\text{Sr}_{17}[\text{Si}_{38}\text{O}_{18}\text{N}_{67}]\text{O}_9$ – An Oxonitridosilicate Oxide with a Unique Layered Structure

C. Maak, R. Niklaus, O. Oeckler, W. Schnick
Z. Anorg. Allg. Chem. **2019**, 645, 182

Rivalry under Pressure: The Coexistence of Ambient-pressure Motifs and Close-packing in Silicon Phosphorus Nitride Imide $\text{SiP}_2\text{N}_4\text{NH}$

S. Vogel, A.T. Buda, W. Schnick
Angew. Chem. **2019**, 131, 3436; *Angew. Chem. Int. Ed.* **2019**, 58, 3398

Cationic Pb_2 Dumbbells Stabilized in the Highly Covalent Lead Nitridosilicate $\text{Pb}_2\text{Si}_5\text{N}_8$

P. Bielec, R. Nelson, R. Stoffel, L. Eisenburger, D. Günther, A.-K. Henß, J.P. Wright, O. Oeckler, R. Dronskowski, W. Schnick
Angew. Chem. **2019**, 131, 1446; *Angew. Chem. Int. Ed.* **2019**, 58, 1432

Targeting Vacancies in Nitridosilicates: Aliovalent Substitution of M^{2+} ($\text{M} = \text{Ca}, \text{Sr}$) by Sc^{3+} and U^{3+}

P. Bielec, L. Eisenburger, L. Deubner, D. Günther, F. Kraus, O. Oeckler, W. Schnick
Angew. Chem. **2019**, 131, 850; *Angew. Chem. Int. Ed.* **2019**, 58, 840

Tailoring Emission Characteristics: Narrow-Band Red Luminescence from SLA to $\text{CaBa}[\text{Li}_2\text{Al}_6\text{N}_8]:\text{Eu}^{2+}$

P. Wagatha, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Mater. **2018**, 30, 7885

Orange-Emitting $\text{Li}_4\text{Sr}_4[\text{Si}_4\text{O}_4\text{N}_6]\text{O}:\text{Eu}^{2+}$ - a Layered Lithium Oxonitridosilicate Oxide

R. Niklaus, L. Neudert, J. Stahl, P.J. Schmidt, W. Schnick
Inorg. Chem. **2018**, 57, 14304

Ammonothermal Synthesis of EAMO_2N ($\text{EA} = \text{Sr}, \text{Ba}$; $\text{M} = \text{Nb}, \text{Ta}$) Perovskites and ^{14}N Solid-State NMR Spectroscopic Investigations of $\text{AM}(\text{O},\text{N})_3$ ($\text{A} = \text{Ca}, \text{Sr}, \text{Ba}, \text{La}$)

N. Cordes, T. Bräuniger, W. Schnick
Eur. J. Inorg. Chem. **2018**, 5019

$\text{RE}_4\text{Ba}_2[\text{Si}_{12}\text{O}_2\text{N}_{16}\text{C}_3]:\text{Eu}^{2+}$ ($\text{RE} = \text{Lu}, \text{Y}$): Green-Yellow Emitting Oxonitridocarbidosilicates with a Highly Condensed Network Structure Unraveled through Synchrotron Microdiffraction

C. Maak, L. Eisenburger, J.P. Wright, M. Nentwig, P.J. Schmidt, O. Oeckler, W. Schnick
Inorg. Chem. **2018**, 57, 13840

$\text{SrH}_4\text{P}_6\text{N}_{12}$ and $\text{SrP}_8\text{N}_{14}$: Insights into the Condensation Mechanism of Nitridophosphates under High Pressure

S. Wendl, W. Schnick
Chem. Eur. J. **2018**, 24, 15889

Ammonothermal Synthesis, Optical Properties, and DFT Calculations of Mg_2PN_3 and Zn_2PN_3

M. Mallmann, C. Maak, R. Niklaus, W. Schnick
Chem. Eur. J. **2018**, 24, 13963

United in Nitride: The Highly Condensed Boron Phosphorus Nitride BP_3N_6

S. Vogel, A. T. Buda, W. Schnick
Angew. Chem. **2018**, 130, 13386; *Angew. Chem. Int. Ed.* **2018**, 57, 13202

$\text{SrP}_3\text{N}_5\text{NH}$: A Framework-type Imidonitridophosphate Featuring Structure-Directing Hydrogen Bonds

S. Vogel, W. Schnick
Chem. Eur. J. **2018**, 24, 14275

Unprecedented Deep-Red Ce³⁺ Luminescence of the Nitridolithosilicates

Li_{38.7}RE_{3.3}Ca_{5.7}[Li₂Si₃₀N₅₉]O₂F (RE = La, Ce, Y)

C. Maak, P. Strobel, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Mater. **2018**, *30*, 5500

Oxoberyllates SrBeO₂ and Sr₁₂Be₁₇O₂₉ as Novel Host Materials for Eu²⁺ Luminescence

P. Strobel, R. Niklaus, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2018**, *24*, 12678

Ultra-Narrow-Band Blue-Emitting Oxoberyllates AELi₂[Be₄O₆]:Eu²⁺ (AE = Sr, Ba)

Paving the Way to Efficient RGB pc-LEDs

P. Strobel, C. Maak, V. Weiler, P.J. Schmidt, W. Schnick
Angew. Chem. **2018**, *130*, 8875; *Angew. Chem. Int. Ed.* **2018**, *57*, 8739

Narrow-Band Yellow-Orange Emitting La_{3-x}Ca_{1.5x}Si₆N₁₁:Eu²⁺ (x ≈ 0.77):

A Promising Phosphor for Next-Generation Amber pcLEDs

C. Maak, D. Durach, C. Martiny, P.J. Schmidt, W. Schnick
Chem. Mater. **2018**, *30*, 3552

Luminescence of an Oxonitridoberyllate: A Study of Narrow-band Cyan-Emitting Sr[Be₆ON₄]:Eu²⁺

P. Strobel, T. de Boer, V. Weiler, P.J. Schmidt, A. Moewes, W. Schnick
Chem. Mater. **2018**, *30*, 3122

Stishovite's Relative: A Post-Coesite Form of Phosphorus Oxonitride

S. Vogel, D. Baumann, R. Niklaus, E. Bykova, M. Bykov, N. Dubrovinskaia, L. Dubrovinsky, W. Schnick
Angew. Chem. **2018**, *130*, 6801; *Angew. Chem. Int. Ed.* **2018**, *57*, 6691

Sr[BeSi₂N₄]:Eu²⁺/Ce³⁺ and Eu[BeSi₂N₄]: Nontypical Luminescence in Highly Condensed Nitridoberyllsilicates

P. Strobel, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2018**, *24*, 7243

LiPr₂P₄N₇O₃: Structural Diversity of Oxonitridophosphates Accessed by High-pressure Metathesis

S.D. Kloß, W. Schnick
Inorg. Chem. **2018**, *57*, 4189

High-pressure Metathesis of the M_{1-x}PO_{3+4x}N_{1-4x} (x ≈ 0.05) and M_{0.75}PO₄ (M = Zr, Hf) Orthophosphates

S.D. Kloß, A. Weis, S. Wandelt, W. Schnick
Inorg. Chem. **2018**, *57*, 4164

Ammonothermal Synthesis of Nitrides: Recent Developments and Future Perspectives

J. Häusler, W. Schnick
Chem. Eur. J. **2018**, *24*, 11864

Tunable Red Luminescence in Nitridomagnesoaluminates α-Sr₂[MgAl₅N₇]:Eu²⁺,

β-Sr₂[MgAl₅N₇]:Eu²⁺ and Sr₈[LiMg₂Al₂₁N₂₈]:Eu²⁺

P. Wagatha, V. Weiler, P.J. Schmidt, W. Schnick
Chem. Mater. **2018**, *30*, 1755

Accessing Tetravalent Transition-Metal Nitridophosphates Through High-pressure Metathesis

S.D. Kloß, S. Wandelt, A. Weis, W. Schnick
Angew. Chem. **2018**, *130*, 3246; *Angew. Chem. Int. Ed.* **2018**, *57*, 3192

Oxonitridosilicate Oxides RE₂₆Ba₆[Si₂₂O₁₉N₃₆]O₁₆:Eu²⁺ (RE = Y, Tb) with a Unique Layered Structure and Orange-Red Luminescence for RE = Y

C. Maak, C. Hoch, P.J. Schmidt, W. Schnick
Inorg. Chem. **2018**, *57*, 2242

HP-CaSiN₂ – A New High-pressure Modification

C. Braun, H. Ehrenberg, W. Schnick
Eur. J. Inorg. Chem. **2018**, 1107

Fe₂Si₅N₈: Access to Open-Shell Transition-Metal Nitridosilicates

P. Bielec, O. Janka, T. Block, R. Pöttgen, W. Schnick
Angew. Chem. **2018**, 130, 2433; *Angew. Chem. Int. Ed.* **2018**, 57, 2409

Synthesis and Structure of Melamium Bromide C₆N₁₁H₁₀Br and Melamium Iodide C₆N₁₁H₁₀I

F.K. Kessler, T.J. Koller, W. Schnick
Z. Anorg. Allg. Chem. **2018**, 644, 186

Ammonothermal Synthesis and Crystal Structure of the Nitridoalumogermanate

Ca_{1-x}Li_xAl_{1-x}Ge_{1+x}N₃ (x ≈ 0.2)

J. Häusler, L. Eisenburger, O. Oeckler, W. Schnick
Eur. J. Inorg. Chem. **2018**, 759

Ammonothermal Synthesis and Optical Properties of Ternary Nitride Semiconductors

Mg-IV-N₂, Mn-IV-N₂ and Li-IV₂-N₃ (IV = Si, Ge)

J. Häusler, R. Niklaus, J. Minár, W. Schnick
Chem. Eur. J. **2018**, 24, 1686

Reversible Polymerization of Adamantane-type [P₄N₁₀]¹⁰⁻ Anions to Honeycomb-type [P₂N₅]⁵⁻ Layers under High-Pressure

E.-M. Bertschler, R. Niklaus, W. Schnick
Chem. Eur. J. **2018**, 24, 736

Structural Variations in Indium Tin Tellurides and Their Thermoelectric Properties

L. Neudert, S. Schwarzmüller, S. Schmitzer, W. Schnick, O. Oeckler
J. Solid State Chem. **2018**, 258, 289

Li⁺ Ion Conductors with Adamantane-type Nitridophosphate Anions - β-Li₁₀P₄N₁₀ and Li₁₃P₄N₁₀X₃ with X = Cl, Br

E.-M. Bertschler, C. Dietrich, T. Leichtweiß, J. Janek, W. Schnick
Chem. Eur. J. **2018**, 24, 196

Aggregated Molecular Fluorophores in the Ammonothermal Synthesis of Carbon Dots

C.J. Reckmeier, J. Schneider, Y. Xiong, J. Häusler, P. Kasák, W. Schnick, A.L. Rogach
Chem. Mater. **2017**, 29, 10352

Highly Symmetric AB₂ Framework Related to Tridymite in the Disordered Nitridosilicate

La₂₄Sr_{14-7x}[Si₃₆N₇₂](O_{1-x}F_x)₁₄ (x = 0.486)

L. Neudert, D. Durach, F. Fahrnbauer, G.B.M. Vaughan, W. Schnick, O. Oeckler
Inorg. Chem. **2017**, 56, 13070

Ammonothermal Synthesis of Alkali-Alkaline Earth Metal and Alkali-Rare Earth Metal

Carbodiimides: K_{5-x}M_x(CN₂)_{2+x}(HCN₂)_{1-x} (M = Sr, Eu) and Na_{4.32}Sr_{0.68}(CN₂)_{2.68}(HCN₂)_{0.32}

M. Mallmann, J. Häusler, N. Cordes, W. Schnick
Z. Anorg. Allg. Chem. **2017**, 643, 1956

Efficient Yellow-orange Phosphor Lu₄Ba₂[Si₉ON₁₆]O:Eu²⁺ and Orange-red Emitting

Y₄Ba₂[Si₉ON₁₆]O:Eu²⁺: Two Oxonitridosilicate Oxides with Outstanding Structural Variety

C. Maak, R. Niklaus, F. Friedrich, A. Mähringer, P.J. Schmidt, W. Schnick
Chem. Mater. **2017**, 29, 8377

Wavelength Converting Material for a Light Emitting Device

P.J. Schmidt, D. Durach, W. Schnick
PCT Int. Appl. **2017**, WO2017144433 A1
Lumileds Holding BV, Ludwig-Maximilians-Universität München

Direct Measurements of Energy Levels and Correlation with Thermal Quenching Behaviour in Nitride Phosphors

T.M. Tolhurst, P. Strobel, P.J. Schmidt, W. Schnick, A. Moewes
Chem. Mater. **2017**, 29, 7976

Puzzling Intergrowth in Cerium Nitridophosphate Unraveled by Joint Venture of Aberration-Corrected Scanning Transmission Electron Microscopy and Synchrotron Diffraction

S.D. Kloß, L. Neudert, M. Döblinger, M. Nentwig, O. Oeckler, W. Schnick
J. Am. Chem. Soc. **2017**, 139, 12724

Ammonothermal Synthesis of Crystalline Oxonitride Perovskites $LnTaON_2$ ($Ln = La, Ce, Pr, Nd, Sm, Gd$)

N. Cordes, W. Schnick
Chem. Eur. J. **2017**, 23, 11410

Designing Luminescent Materials and Band Gaps: A Soft X-ray Spectroscopy and Density Functional Theory Study of $Li_2Ca_2[Mg_2Si_2N_6]:Eu^{2+}$ and $Ba[Li_2(Al_2Si_2)N_6]:Eu^{2+}$

T.M. Tolhurst, P. Strobel, P.J. Schmidt, W. Schnick, A. Moewes
J. Phys. Chem. C. **2017**, 121, 14296

Functional Carbon Nitride Materials – Design Strategies for Electrochemical Devices

F.K. Kessler, Y. Zheng, D. Schwarz, C. Merschjann, W. Schnick, X. Wang, M.J. Bojdys
Nat. Rev. Mater. **2017**, 2, 17030

$Li_{12}P_3N_9$ with Non-Condensed $[P_3N_9]^{12-}$ -Rings and its High-Pressure Polymorph Li_4PN_3 with Infinite Chains of PN_4 -Tetrahedra

E.-M. Bertschler, R. Niklaus, W. Schnick
Chem. Eur. J. **2017**, 23, 9592

$Li_{24}Sr_{12}[Si_{24}N_{47}O]F:Eu^{2+}$ - Structure and Luminescence of an Orange Phosphor

K. Horky, W. Schnick
Chem. Mater. **2017**, 29, 4590

Ammonothermal Synthesis of Earth-abundant Nitride Semiconductors $ZnSiN_2$ and $ZnGeN_2$ and Dissolution Monitoring by In Situ X-ray Imaging

J. Häusler, S. Schimmel, P. Wellmann, W. Schnick
Chem. Eur. J. **2017**, 23, 12275

Crystal Structure and Nontypical Deep-Red Luminescence of $Ca_3Mg[Li_2Si_2N_6]:Eu^{2+}$

C. Poesl, W. Schnick
Chem. Mater. **2017**, 29, 3778

The Crystal Structure of Nitridomagnesogermanate $Ba[Mg_3GeN_4]:Eu^{2+}$ and Theoretical Calculations of Its Electronic Properties

C. Poesl, R. Niklaus, W. Schnick
Eur. J. Inorg. Chem. **2017**, 2422

First-principle and Experimental Characterization of the Electronic Properties of $CaGaSiN_3$ and $CaAlSiN_3$: The Impact of Chemical Disorder

R. Niklaus, J. Minár, J. Häusler, W. Schnick
Phys. Chem. Chem. Phys. **2017**, 19, 9292

$Li_{47}B_3P_{14}N_{42}$ – A Lithium Nitridoborophosphate with $[P_3N_9]^{12-}$, $[P_4N_{10}]^{10-}$, and the Unprecedented $[B_3P_3N_{13}]^{15-}$ Ion

E.-M. Bertschler, T. Bräuniger, C. Dietrich, J. Janek, W. Schnick
Angew. Chem. **2017**, 129, 4884; *Angew. Chem. Int. Ed.* **2017**, 56, 4806

Increased Synthetic Control - Gaining Access to Predicted $\text{Mg}_2\text{Si}_5\text{N}_8$ and $\beta\text{-Ca}_2\text{Si}_5\text{N}_8$

P. Bielec, W. Schnick

Angew. Chem. **2017**, 129, 4888; *Angew. Chem. Int. Ed.* **2017**, 56, 4810

An Unusual Nitride Network of Aluminum-centered Octahedra and Phosphorus-centered Tetrahedra and Structure Determination from Microcrystalline Samples

L. Neudert, F. Heinke, T. Bräuniger, F. Pucher, G.B. Vaughan, O. Oeckler, W. Schnick

Chem. Commun. **2017**, 53, 2709

$\text{Ca}_4\text{Mg}_5\text{Ge}_3\text{N}_{10}$ and $\text{Sr}_2\text{Mg}_3\text{GaN}_{4.33}$ – Two Mg-containing Nitrides and their Structural Relations to $(\text{Sr},\text{Ba})_2\text{Si}_5\text{N}_8$

C. Poesl, W. Schnick

Eur. J. Inorg. Chem. **2017**, 1498

Anti-Perovskite Nitridophosphate Oxide $\text{Ho}_3[\text{PN}_4]\text{O}$ by High-Pressure Metathesis

S.D. Kloß, N. Weidmann, W. Schnick

Eur. J. Inorg. Chem. **2017**, 1930

Luminescence of the Narrow-band Red Emitting Nitridomagnesosilicate

$\text{Li}_2(\text{Ca}_{1-x}\text{Sr}_x)_2[\text{Mg}_2\text{Si}_2\text{N}_6]:\text{Eu}^{2+}$ ($x = 0\text{--}0.06$)

P. Strobel, V. Weiler, C. Hecht, P.J. Schmidt, W. Schnick

Chem. Mater. **2017**, 29, 1377

$\text{LiCa}_4\text{Si}_4\text{N}_8\text{F}$ and $\text{LiSr}_4\text{Si}_4\text{N}_8\text{F}$: Nitridosilicate Fluorides with a BCT-Zeolite-Type Network Structure

K. Horky, W. Schnick

Eur. J. Inorg. Chem. **2017**, 1107

$\text{Ba}_{32}[\text{Li}_{15}\text{Si}_9\text{W}_{16}\text{N}_{67}\text{O}_5]$: A Barium-containing Oxonitridolithotungstosilicate with a Highly Condensed Network Structure

K. Horky, W. Schnick

Eur. J. Inorg. Chem. **2017**, 1100

$\text{Li}_{18}\text{P}_6\text{N}_{16}$ – A Lithium Nitridophosphate with Unprecedented Tricyclic $[\text{P}_6\text{N}_{16}]^{18-}$ Ions

E.-M. Bertschler, C. Dietrich, J. Janek, W. Schnick

Chem. Eur. J. **2017**, 23, 2185

Layered Nitridomagnesogallates $\text{CaMg}_2\text{GaN}_3$ and $\text{CaMg}_2\text{Ga}_2\text{N}_4$

C. Poesl, L. Neudert, W. Schnick

Eur. J. Inorg. Chem. **2017**, 1067

Ammonothermal Synthesis of Novel Nitrides: Case Study on CaGaSiN_3

J. Häusler, L. Neudert, M. Mallmann, R. Niklaus, A.-C.L. Kimmel, N.S.A. Alt, E. Schlücker,

O. Oeckler, W. Schnick

Chem. Eur. J. **2017**, 23, 2583

High-pressure Synthesis of Melilite-Type Rare-Earth Nitridophosphates $\text{RE}_2\text{P}_3\text{N}_7$ and a $\text{Ba}_2\text{Cu}[\text{Si}_2\text{O}_7]$ -type Polymorph

S.D. Kloß, N. Weidmann, R. Niklaus, W. Schnick

Inorg. Chem. **2016**, 55, 9400

Insight in the 3D Morphology of Silica-based Nanotubes Using Electron Microscopy

T. Dennenwaldt, A. Wisnet, S.J. Sedlmaier, M. Döblinger, W. Schnick, C. Scheu

Micron **2016**, 90, 6

$\text{Ca}_2\text{Mg}_5\text{GeN}_6$ – A Layered Nitridomagnesogermanate

C. Poesl, W. Schnick

Z. Anorg. Allg. Chem. **2016**, 642, 882

LED Phosphor Comprising Bow-tie Shaped A_2N_6 Building Blocks

P.J. Schmidt, P.J. Strobel, S.F. Schmiechen, C.S. Hecht, V. Weiler, W. Schnick
PCT Int. Appl. **2016**, WO 2016075021 A1
Koninklijke Philips NV, Ludwig-Maximilians-Universität München

Field-induced Transition of the Magnetic Ground State from A-type Antiferromagnetic to Ferromagnetic Order in $CsCo_2Se_2$

F. v. Rohr, A. Krzton-Maziopa, V. Pomjakushin, H. Grundmann, Z. Guguchia, W. Schnick, A. Schilling
J. Phys.: Cond. Matter **2016**, *28*, 276001

Experiment-Driven Modeling of Crystalline Phosphorus Nitride P_3N_5 : Wide-Ranging Implications from a Unique Structure

T.M. Tolhurst, C. Braun, T.D. Boyko, W. Schnick, A. Moewes
Chem. Eur. J. **2016**, *22*, 10475

$Ba_{1.63}La_{7.39}Si_{11}N_{23}Cl_{0.42}:Ce^{3+}$ - A Nitridosilicate Chloride with a Zeolite-like Structure

P. Schultz, D. Durach, W. Schnick, O. Oeckler
Z. Anorg. Allg. Chem. **2016**, *642*, 603

From Minor Side Phases to Bulk Samples of Lanthanum Oxonitridosilicates – An Investigation with Microfocused Synchrotron Radiation

D. Durach, P. Schultz, O. Oeckler, W. Schnick
Inorg. Chem. **2016**, *55*, 3624

CdP_2N_4 and MnP_2N_4 – Ternary Transition-Metal Nitridophosphates

F.J. Pucher, F.W. Karau, J. Schmedt auf der Günne, W. Schnick
Eur. J. Inorg. Chem. **2016**, 1497

$Ca_{18.75}Li_{10.5}[Al_{39}N_{55}]:Eu^{2+}$ - Supertetrahedron Phosphor for Solid-State Lighting

P. Wagatha, P. Pust, V. Weiler, A.S. Wochnik, P.J. Schmidt, C. Scheu, W. Schnick
Chem. Mater. **2016**, *28*, 1220

M_2PO_3N ($M = Ca, Sr$) – *ortho*-Oxonitridophosphates with β - K_2SO_4 Structure Type

A. Marchuk, P. Schultz, C. Hoch, O. Oeckler, W. Schnick
Inorg. Chem. **2016**, *55*, 974

A ^{45}Sc -NMR and DFT Calculation Study of Crystalline Scandium Compounds

T. Bräuniger, A.J. Hofmann, I.L. Moudrakovski, C. Hoch, W. Schnick
Solid State Sci. **2016**, *51*, 1

Electronic Structure, Band Gap, and Thermal Quenching of $Sr[Mg_3SiN_4]:Eu^{2+}$ in Comparison to $Sr[LiAl_3N_4]:Eu^{2+}$

T.M. Tolhurst, S. Schmiechen, P. Pust, P. Schmidt, W. Schnick, A. Moewes
Adv. Opt. Mater. **2016**, *4*, 584

Lanthanum (Oxo)nitridosilicates: From Ordered to Disordered Crystal Structures

D. Durach, W. Schnick
Z. Anorg. Allg. Chem. **2016**, *642*, 101

Crystal Structures of Cristobalite-Type and Coesite-Type PON Redetermined on the Basis of Single-Crystal X-Ray Diffraction Data

M. Bykov, E. Bykova, V. Dyadkin, D. Baumann, W. Schnick, L. Dubrovinsky, N. Dubrovinskaia
Acta Crystallogr. **2015**, *E71*, 1325

Supertetrahedron Phosphor for Solid-State Lighting

V. Weiler, P.J. Schmidt, P.A.H. Pust, W. Schnick
PCT Int. Appl. **2015**, WO 2015135888 A1
Koninklijke Philips NV, Ludwig-Maximilians-Universität München

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

A. Marchuk, S. Wendl, N. Imamovic, F. Tambornino, D. Wiechert, P.J. Schmidt, W. Schnick
Chem. Mater. **2015**, *27*, 6432

Narrow-Band Green Emitting Nitridolithoalumosilicate $\text{Ba}[\text{Li}_2(\text{Al}_2\text{Si}_2)\text{N}_6]:\text{Eu}^{2+}$ with Framework Topology whj for LED/LCD-Backlighting Applications

P. Strobel, S. Schmiechen, M. Siegert, A. Tücks, P.J. Schmidt, W. Schnick
Chem. Mater. **2015**, *27*, 6109

$\text{La}_6\text{Ba}_3[\text{Si}_{17}\text{N}_{29}\text{O}_2]\text{Cl}$ – An Oxonitridosilicate Chloride with Exceptional Structural Motifs

D. Durach, F. Fahrnbauer, O. Oeckler, W. Schnick
Inorg. Chem. **2015**, *54*, 8727

Non-Condensed (Oxo-)Nitridosilicates: $\text{La}_3[\text{SiN}_4]\text{F}$ and the Polymorph $\alpha\text{-La}_3[\text{SiN}_3\text{O}]\text{O}$

D. Durach, W. Schnick
Eur. J. Inorg. Chem. **2015**, 4095

Rare-Earth-Metal Nitridophosphates through High-Pressure Metathesis

S.D. Kloß, W. Schnick
Angew. Chem. **2015**, *127*, 11402; *Angew. Chem. Int. Ed.* **2015**, *54*, 11250

$\text{La}_3\text{BaSi}_5\text{N}_9\text{O}_2:\text{Ce}^{3+}$ – A Yellow Phosphor with an Unprecedented Tetrahedra Network Structure Investigated by Combination of Electron Microscopy and Synchrotron X-ray Diffraction

D. Durach, L. Neudert, P.J. Schmidt, O. Oeckler, W. Schnick
Chem. Mater. **2015**, *27*, 4832

A Revolution in Lighting

P. Pust, P.J. Schmidt, W. Schnick
Nat. Mater. **2015**, *14*, 454

New Nitridoalumosilicate Phosphor for Solid State Lighting

A. Tuecks, B.-S. Schreinemacher, P.J. Schmidt, S.F. Schmiechen, W. Schnick
PCT Int. Appl. **2015**, WO 2015044106 A1
Koninklijke Philips Electronics NV, Ludwig-Maximilians-Universität München

Band Gap and Electronic Structure of MgSiN_2 Determined Using Soft X-ray Spectroscopy and Density Functional Theory

T. de Boer, T.D. Boyko, C. Braun, W. Schnick, A. Moewes
Phys. Status Solidi RRL **2015**, *9*, 250

Synthesis of Triazine-Based Materials by Functionalization with Alkynes

N.E. Braml, L. Stegbauer, B.V. Lotsch, W. Schnick
Chem. Eur. J. **2015**, *21*, 7866

Luminescent Nitridophosphates $\text{CaP}_2\text{N}_4:\text{Eu}^{2+}$, $\text{SrP}_2\text{N}_4:\text{Eu}^{2+}$, $\text{BaP}_2\text{N}_4:\text{Eu}^{2+}$, and $\text{BaSr}_2\text{P}_6\text{N}_{12}:\text{Eu}^{2+}$

F.J. Pucher, A. Marchuk, P.J. Schmidt, D. Wiechert, W. Schnick
Chem. Eur. J. **2015**, *21*, 6443

Nitridomagnesosilicate $\text{Ba}[\text{Mg}_3\text{SiN}_4]:\text{Eu}^{2+}$ and Structure-Property Relations of Similar Narrow-Band Red Nitride Phosphors

S. Schmiechen, P. Strobel, C. Hecht, T. Reith, M. Siegert, P.J. Schmidt, P. Huppertz, D. Wiechert, W. Schnick
Chem. Mater. **2015**, *27*, 1780

$\text{MH}_4\text{P}_6\text{N}_{12}$ ($M = \text{Mg}, \text{Ca}$): New Imidonitridophosphates with an Unprecedented Layered Network Structure Type

A. Marchuk, V.R. Celinski, J. Schmedt auf der Günne, W. Schnick
Chem. Eur. J. **2015**, *21*, 5836

Structural Relationship Between the Mg-Containing Nitridosilicates $\text{Ca}_2\text{Mg}[\text{Li}_4\text{Si}_2\text{N}_6]$ and $\text{Li}_2\text{Ca}_2[\text{Mg}_2\text{Si}_2\text{N}_6]$

S. Schmiechen, F. Nietschke, W. Schnick

Eur. J. Inorg. Chem. **2015**, 1592

CuPN_2 : Synthesis, Crystal Structure, and Electronic Properties

F.J. Pucher, F. Hummel, W. Schnick

Eur. J. Inorg. Chem. **2015**, 1886

A High-Pressure Polymorph of Phosphorus Oxonitride with the Coesite Structure

D. Baumann, R. Niklaus, W. Schnick

Angew. Chem. **2015**, 127, 4463; *Angew. Chem. Int. Ed.* **2015**, 54, 4388

$\text{Li}_{14}(\text{PON}_3)_2\text{O}$ – A Non-condensed Oxonitridophosphate Oxide

D. Baumann, W. Schnick

Eur. J. Inorg. Chem. **2015**, 617

$\text{Ba}_3\text{P}_5\text{N}_{10}\text{Br}:\text{Eu}^{2+}$: A Natural-White-Light Single Emitter with Zeolite Structure Type

A. Marchuk, W. Schnick

Angew. Chem. **2015**, 127, 2413; *Angew. Chem. Int. Ed.* **2015**, 54, 2383

Investigations of the Electronic Structure and Bandgap of the Next-Generation

LED-Phosphor $\text{Sr}[\text{LiAl}_3\text{N}_4]:\text{Eu}^{2+}$ - Experiment and Calculations

T.M. Tolhurst, T.D. Boyko, P. Pust, N.W. Johnson, W. Schnick, A. Moewes

Adv. Opt. Mater. **2015**, 3, 546

$\text{Sn}_6[\text{P}_{12}\text{N}_{24}]$ – A Sodalite-Type Nitridophosphate

F.J. Pucher, Constantin Frhr. von Schirnding, F. Hummel, V.R. Celinski,

J. Schmedt auf der Günne, B. Gerke, R. Pöttgen, W. Schnick

Eur. J. Inorg. Chem. **2015**, 382

Group (III) Nitrides $M[\text{Mg}_2\text{Al}_2\text{N}_4]$ ($M = \text{Ca}, \text{Sr}, \text{Ba}, \text{Eu}$) and $\text{Ba}[\text{Mg}_2\text{Ga}_2\text{N}_4]$ - Structural Relation and Nontypical Luminescence Properties of Eu^{2+} Doped Samples

P. Pust, F. Hintze, C. Hecht, V. Weiler, A. Locher, D. Zitnanska, S. Harm,

D. Wiechert, P.J. Schmidt, W. Schnick

Chem. Mater. **2014**, 26, 6113

$\text{MgSrP}_3\text{N}_5\text{O}_2$ – A Novel Oxonitridophosphate

F.J. Pucher, W. Schnick

Z. Anorg. Allg. Chem. **2014**, 640, 2708

Weißes Licht aus Nitriden

S. Schmiechen, P. Pust, P.J. Schmidt, W. Schnick

Nachr. Chem. **2014**, 62, 847

High-Pressure Polymorph of Phosphorus Nitride Imide HP_4N_7 Representing a New Framework Topology

D. Baumann, W. Schnick

Inorg. Chem. **2014**, 53, 7977

Pentacoordinated Phosphorus in a High-Pressure Polymorph of Phosphorus Nitride Imide $\text{P}_4\text{N}_6(\text{NH})$

D. Baumann, W. Schnick

Angew. Chem. **2014**, 126, 14718; *Angew. Chem. Int. Ed.* **2014**, 53, 14490

Narrow-Band Red-Emitting $\text{Sr}[\text{LiAl}_3\text{N}_4]:\text{Eu}^{2+}$ as a Next-Generation LED-Phosphor Material

P. Pust, V. Weiler, C. Hecht, A. Tücks, A.S. Wochnik, A.-K. Henß, D. Wiechert, C. Scheu,

P.J. Schmidt, W. Schnick

Nat. Mater. **2014**, 13, 891

A New Route to Metal Azides

T.G. Müller, F. Karau, W. Schnick, F. Kraus
Angew. Chem. **2014**, 126, 13913; *Angew. Chem. Int. Ed.* **2014**, 53, 13695

Ca[LiAl₃N₄]:Eu²⁺ - A Narrow-Band Red-Emitting Nitridolithoaluminate

P. Pust, A.S. Wochnik, E. Baumann, P.J. Schmidt, D. Wiechert, C. Scheu, W. Schnick
Chem. Mater. **2014**, 26, 3544

CaMg₂P₆O₃N₁₀ - A Quinary Oxonitridophosphate with an Unprecedented Tetrahedra Network Structure Type

A. Marchuk, L. Neudert, O. Oeckler, W. Schnick
Eur. J. Inorg. Chem. **2014**, 3427

Bonding Behavior and Chemical Stability of Silica-based Nanotubes and Their 3D Assembly

T. Dennenwaldt, S.J. Sedlmaier, A. Binek, W. Schnick, C. Scheu
J. Phys. Chem. C **2014**, 118, 8416

Toward New Phosphors for Application in Illumination-Grade White pc-LEDs: The Nitridomagnesosilicates Ca[Mg₃SiN₄]:Ce³⁺, Sr[Mg₃SiN₄]:Eu²⁺ and Eu[Mg₃SiN₄]

S. Schmiechen, H. Schneider, P. Wagatha, C. Hecht, P.J. Schmidt, W. Schnick
Chem. Mater. **2014**, 26, 2712

High-Resolution Spectroscopy of Bonding in a Novel BeP₂N₄ Compound

T. Dennenwaldt, J. Ciston, U. Dahmen, W.-Y. Ching, F.J. Pucher, W. Schnick, C. Scheu
Microsc. Microanal. **2014**, 20, 664

TAGS-Related Indium Compounds and their Thermoelectric Properties – the Solid Solution Series (GeTe)_xAgIn_ySb_{1-y}Te₂ (x = 1 – 12; y = 0.5, 1)

T. Schröder, T. Rosenthal, N. Giesbrecht, S. Maier, E.-W. Scheidt, W. Scherer, G.J. Snyder, W. Schnick, O. Oeckler
J. Mater. Chem. A **2014**, 2, 6384

A High-Pressure Polymorph of Phosphorus Nitride Imide

A. Marchuk, F.J. Pucher, F.W. Karau, W. Schnick
Angew. Chem. **2014**, 126, 2501, *Angew. Chem. Int. Ed.* **2014**, 53, 2469

Highly Efficient pc-LED Phosphors Sr_{1-x}Ba_xSi₂O₂N₂:Eu²⁺ (0 ≤ x ≤ 1) – Crystal Structures and Luminescence Properties Revisited

M. Seibald, T. Rosenthal, O. Oeckler, W. Schnick
Crit. Rev. Solid State Mater. Sci. **2014**, 39, 215

New Phosphors, such as New Narrow-Band Red Emitting Phosphors, for Solid State Lighting

P.J. Schmidt, F. Hintze, P.A.H. Pust, V. Weiler, C. Hecht, S.F. Schmiechen, W. Schnick, D.U. Wiechert
PCT Int. Appl. **2013**, WO 2013175336 A1
Koninklijke Philips Electronics NV, Philips Intellectual Property & Standards GmbH, Germany

Intermediates in Ammonothermal GaN Crystal Growth under Ammonoacidic Conditions

S. Zhang, F. Hintze, W. Schnick, R. Niewa
Eur. J. Inorg. Chem. **2013**, 5387

Two Synthetic Approaches to Ag_{3.4}In_{3.7}Sb_{76.4}Te_{16.5} Bulk Samples and their Transport Properties

T. Schröder, T. Rosenthal, C. Gold, E.-W. Scheidt, W. Schnick, O. Oeckler
Z. Anorg. Allg. Chem. **2013**, 639, 2868

High-Pressure Synthesis and Characterization of Li₂Ca₃[N₂]₃ – An Uncommon Metallic Diazenide with [N₂]²⁻ Ions

S.B. Schneider, M. Seibald, V.L. Deringer, R.P. Stoffel, R. Frankovsky, G.M. Friederichs, H. Laqua, V. Duppel, G. Jeschke, R. Dronskowski, W. Schnick
J. Am. Chem. Soc. **2013**, 135, 16668

Electronic and Ionic Conductivity in Alkaline Earth Diazenides $M_{AE}N_2$ ($M_{AE} = Ca, Sr, Ba$) and in Li_2N_2

S.B. Schneider, M. Mangstl, G.M. Friederichs, R. Frankovsky, J. Schmedt auf der Günne, W. Schnick
Chem. Mater. **2013**, *25*, 4149

Aperiodic CrSc Multilayer Mirrors for Attosecond Water Window Pulses

A. Guggenmos, R. Rauhut, M. Hofstetter, S. Hertrich, B. Nickel, J. Schmidt, E.M. Gullikson, M. Seibald, W. Schnick, U. Kleineberg
OpEx **2013**, *21*, 21728

Magnesium Double Nitride Mg_3GaN_3 as New Host Lattice for Eu^{2+} Doping: Synthesis, Structural Studies, Luminescence, and Band-Gap Determination

F. Hintze, N.W. Johnson, M. Seibald, D. Muir, A. Moewes, W. Schnick
Chem. Mater. **2013**, *25*, 4044

Mn-Activated Hexafluorosilicates for LED Applications

V. Weiler, P.J. Schmidt, W. Schnick, M.A. Seibald
PCT Int. Appl. **2013**, WO 2013088313 A1
Koninklijke Philips Electronics NV, Philips Intellectual Property & Standards GmbH, Germany

Asymmetric Fluorodinitromethyl Derivatives of 2,2,2-trinitroethyl N-(2,2,2-trinitroethyl)carbamate

T.M. Klapötke, B. Krumm, R. Moll, S.F. Rest, W. Schnick, M. Seibald
J. Fluor. Chem. **2013**, *156*, 253

Metal-Organic Framework Luminescence in the Yellow Gap by Codoping of the Homoleptic Imidazolate [Balm₂] with Divalent Europium

J.-C. Rybak, M. Hailmann, P.R. Matthes, A. Zurawski, J. Nitsch, A. Steffen, J. Heck, C. Feldmann, S. Götzendörfer, J. Meinhardt, G. Sextl, H. Kohlmann, S.J. Sedlmaier, W. Schnick, K. Müller-Buschbaum
J. Am. Chem. Soc. **2013**, *135*, 6896

Band Gap Tuning in Poly(triazine imide), a Nonmetallic Photocatalyst

E. McDermott, E. Wirnhier, W. Schnick, K. Singh Viridi, C. Scheu, Y. Kauffmann, W.D. Kaplan, E. Kurmaev, A. Moewes
J. Phys. Chem. C **2013**, *117*, 8806

Ammonothermal Synthesis and Crystal Structure of $BaAl_2(NH_2)_8 \cdot 2NH_3$

P. Pust, S. Schmiechen, F. Hintze, W. Schnick
Z. Anorg. Allg. Chem. **2013**, *639*, 1185

New Polymorph of the Highly Efficient LED-Phosphor $SrSi_2O_2N_2:Eu^{2+}$ – Polytypism of a Layered Oxonitridosilicate

M. Seibald, T. Rosenthal, O. Oeckler, C. Maak, A. Tücks, P.J. Schmidt, D. Wiechert, W. Schnick
Chem. Mater. **2013**, *25*, 1852

Triazine-based Carbon Nitrides for Visible-Light-Driven Hydrogen Evolution

K. Schwinghammer, B. Tuffy, M.B. Mesch, E. Wirnhier, C. Martineau, F. Taulelle, W. Schnick, J. Senker, B.V. Lotsch
Angew. Chem. **2013**, *125*, 2495; *Angew. Chem. Int. Ed.* **2013**, *52*, 2435

$Ca[LiAlN_2]$: A Quaternary Nitridoaluminate

P. Pust, S. Pagano, W. Schnick
Eur. J. Inorg. Chem. **2013**, 1157

Formation and Characterization of Melam, Melam Hydrate and a Melam-Melam Adduct

E. Wirnhier, M.B. Mesch, J. Senker, W. Schnick
Chem. Eur. J. **2013**, *19*, 2041

**New Heptazine Based Materials with a Divalent Cation –
Sr[HC₆N₇O₃] · 4H₂O and Sr[HC₆N₇(NCN)₃] · 7H₂O**

N.E. Braml, W. Schnick
Z. Anorg. Allg. Chem. **2013**, *639*, 275

Ca₂Ga₃MgN₅ – A Highly Condensed Nitridogallate

F. Hintze, W. Schnick
Z. Anorg. Allg. Chem. **2012**, *638*, 2243

Materials Properties of Ultra-Incompressible Re₂P

S.B. Schneider, D. Baumann, A. Salamat, Z. Konopkova, W. Morgenroth, H.-P. Liermann,
M. Schwarz, L. Bayarjargal, A. Friedrich, B. Winkler, W. Schnick
Chem. Mater. **2012**, *24*, 3240

**Unexpected Luminescence Properties of Sr_{0.25}Ba_{0.75}Si₂O₂N₂:Eu²⁺ - A Narrow Blue Emitting
Oxonitridosilicate with Cation Ordering**

M. Seibald, T. Rosenthal, O. Oeckler, F. Fahrnbauer, A. Tücks, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2012**, *18*, 13446

Orange to Red Emitting Silicon-Oxynitride Luminescent Materials

P.J. Schmidt, C.S. Hecht, W. Schnick
PCT Int. Appl. **2012**, WO 2012077042 A1
Koninklijke Philips Electronics NV, Philips Intellectual Property & Standards GmbH, Germany

**Template-free Inorganic Synthesis of Silica-based Nanotubes and their
Self-Assembly to Mesocrystals**

S.J. Sedlmaier, T. Dennenwaldt, C. Scheu, W. Schnick
J. Mater. Chem. **2012**, *22*, 15511

BaSi₄O₆N₂ – A Hexacelsian-Type Layered Oxonitridosilicate

C. Braun, H. Ehrenberg, W. Schnick
Eur. J. Inorg. Chem. **2012**, 3923

**Ca₃Sm₃[Si₉N₁₇] and Ca₃Yb₃[Si₉N₁₇] - Nitridosilicates with Interpenetrating Nets Consisting
of Star-Shaped [N^[4](SiN₃)₄]-Units and [Si₅N₁₆]-Supertetrahedra**

H. Huppertz, O. Oeckler, A. Lieb, R. Glaum, D. Johrendt, M. Tegel, R. Kaindl, W. Schnick
Chem. Eur. J. **2012**, *18*, 10857

**Li₁₄Ln₅[Si₁₁N₁₉O₅]O₂F₂ with Ln = Ce, Nd – Representatives of a Family
of Potential Lithium Ion Conductors**

S. Lupart, G. Gregori, J. Maier, W. Schnick
J. Am. Chem. Soc. **2012**, *134*, 10132

**Ammonothermal Synthesis of Alkali N,N'-bis(aminocarbonyl)-phosphorodiamidates
M[PO₂(NHCONH₂)₂] (M = Na, K, Rb)**

E. Wirnhier, R.D. Boller, W. Schnick
Eur. J. Inorg. Chem. **2012**, 3296

Reversible High-Pressure Phase Transition in LaN

S.B. Schneider, D. Baumann, A. Salamat, W. Schnick
J. Appl. Phys. **2012**, *111*, 093503

LiCa₃Si₂N₅ – A Lithium Nitridosilicate with a [Si₂N₅]⁷⁻ Double-Chain

S. Lupart, W. Schnick
Z. Anorg. Allg. Chem. **2012**, *638*, 2015

Ca[PO₂(NH)₃(CO)₂] – The First Biuretooxophosphate with a Divalent Cation

E. Wirnhier, W. Schnick

Z. Anorg. Allg. Chem. **2012**, 638, 920

An Unprecedented AB₂ Tetrahedra Network Structure Type in a High-Pressure Phase of Phosphorus Oxonitride PON

D. Baumann, S.J. Sedlmaier, W. Schnick

Angew. Chem. **2012**, 124, 4785; *Angew. Chem. Int. Ed.* **2012**, 51, 4707

Rare-Earth Melonates LnC₆N₇(NCN)₃·xH₂O (Ln = La, Ce, Pr, Nd, Sm, Eu, Tb; x = 8-12): Synthesis, Crystal Structures, Thermal Behavior, and Photoluminescence Properties of Heptazine Salts with Trivalent Cations

S.J. Makowski, A. Schwarze, P.J. Schmidt, W. Schnick

Eur. J. Inorg. Chem. **2012**, 1832

A Systematic Approach to Alkali Biuretooxophosphates

E. Wirnhier, W. Schnick

Eur. J. Inorg. Chem. **2012**, 1840

Crystal Structure of Barium Oxonitridophosphate, Ba₃P₆O₆N₈

S.J. Sedlmaier, D. Weber, W. Schnick

Z. Kristallogr. – NCS **2012**, 227, 1

Supramolecular Hydrogen-Bonded Structures Between Melamine and N-Heterocycles

S.J. Makowski, M. Lacher, C. Lermer, W. Schnick

J. Mol. Struct. **2012**, 1013, 19

High-Pressure Synthesis and Structural Investigation of H₃P₈O₈N₉: A New Phosphorus(V) Oxonitride Imide with an Interrupted Framework Structure

S.J. Sedlmaier, V.R. Celinski, J. Schmedt auf der Günne, W. Schnick

Chem. Eur. J. **2012**, 18, 4358

Luminescence Tuning of MOFs via Ligand to Metal and Metal to Metal Energy Transfer by Co-Doping of [Gd₂Cl₆(bipy)₃]-2bipy with Europium and Terbium

P.R. Matthes, C.J. Höller, M. Mai, J. Heck, S.J. Sedlmaier, S. Schmiechen, C. Feldmann, W. Schnick, K. Müller-Buschbaum

J. Mater. Chem. **2012**, 22, 10179

Formation of a Hydrogen-Bonded Heptazine Framework by Self-Assembly of Melem into a Hexagonal Channel Structure

S.J. Makowski, P. Köstler, W. Schnick

Chem. Eur. J. **2012**, 18, 3248

Ba₃Ga₃N₅ – A Novel Host Lattice for Eu²⁺-Doped Luminescent Materials with Unexpected Nitrudogallate Substructure

F. Hintze, F. Hummel, P.J. Schmidt, D. Wiechert, W. Schnick

Chem. Mater. **2012**, 24, 402

High-Pressure Synthesis and Characterization of the Alkali Diazenide Li₂N₂

S.B. Schneider, R. Frankovsky, W. Schnick

Angew. Chem. **2012**, 124, 1909; *Angew. Chem. Int. Ed.* **2012**, 51, 1873

Synthesis of Alkaline Earth Diazenides M_{AE}N₂ (M_{AE} = Ca, Sr, Ba) by Controlled Thermal Decomposition of Azides under High Pressure

S.B. Schneider, R. Frankovsky, W. Schnick

Inorg. Chem. **2012**, 51, 2366

Ba₆P₁₂N₁₇O₉Br₃ – A Column-Type Phosphate Structure Solved from Single-Nanocrystal Data Obtained by Automated Electron Diffraction Tomography

E. Mugnaioli, S.J. Sedlmaier, O. Oeckler, U. Kolb, W. Schnick
Eur. J. Inorg. Chem. **2012**, 121

Li₂Sr₄Al₂Ta₂N₈O - ANitridoalumotantalate with BCT-Zeolite Type Structure

P. Pust, W. Schnick
Z. Anorg. Allg. Chem. **2012**, 638, 352

Investigation of the Hydrolysis Stability of Triazine Tricarboxylate in the Presence of Transition Metal(II) Ions and Synthesis and Crystal Structure of the Alkaline Earth Triazine Tricarboxylates M₃[C₃N₃(CO₂)₃]₂·12H₂O (M = Sr, Ba)

S.J. Makowski, E. Calta, M. Hörmannsdorfer, W. Schnick
Z. Anorg. Allg. Chem. **2012**, 638, 345

Formation of Cocrystals between Alkali Triazine Tricarboxylates and Cyanuric Acid – Reactivity Considerations and Structural Characterization of the Adduct Phases

M₃[C₃N₃(CO₂)₃][C₃N₃O₃H₃] · H₂O (M=K, Rb)
S.J. Makowski, E. Calta, M. Lacher, W. Schnick
Z. Anorg. Allg. Chem. **2012**, 638, 88

LiLa₅Si₄N₁₀O and LiPr₅Si₄N₁₀O – Chain-Type Oxonitridosilicates

S. Lupart, W. Schnick
Z. Anorg. Allg. Chem. **2012**, 638, 94

Formation of Melamium Adducts by Pyrolysis of Thiourea or Melamine/NH₄Cl Mixtures

N.E. Braml, A. Sattler, W. Schnick
Chem. Eur. J. **2012**, 18, 1811

Novel Alkali Triazine Tricarboxylates Li₃[C₃N₃(CO₂)₃] · 4H₂O, Rb₃[C₃N₃(CO₂)₃] · 2H₂O and Cs₃[C₃N₃(CO₂)₃] · 2H₂O – Synthesis, Crystal Structure and Thermal Behavior

S.J. Makowski, E. Calta, W. Schnick
Z. Anorg. Allg. Chem. **2011**, 637, 2142

Synthesis and Characterization of Ca₂(PO₂NH)₄·8H₂O

S.J. Sedlmaier, S.R. Römer, W. Schnick
Z. Anorg. Allg. Chem. **2011**, 637, 2228

Real Structure and Diffuse Scattering of Sr_{0.5}Ba_{0.5}Si₂O₂N₂:Eu²⁺ - A Highly Efficient Yellow Phosphor for pc-LEDs

M. Seibald, O. Oeckler, V.R. Celinski, P.J. Schmidt, A. Tücks, W. Schnick
Solid State Sci. **2011**, 13, 1769

Unprecedented Zeolite-Like Framework Topology Constructed from Cages with 3-Rings in a Barium Oxonitridophosphate

S.J. Sedlmaier, M. Döblinger, O. Oeckler, J. Weber, J. Schmedt auf der Günne, W. Schnick
J. Am. Chem. Soc. **2011**, 133, 12069

SrP₃N₅O: A Highly Condensed Layer Phosphate Structure Solved from a Nanocrystal by Automated Electron Diffraction Tomography

S.J. Sedlmaier, E. Mugnaioli, O. Oeckler, U. Kolb, W. Schnick
Chem. Eur. J. **2011**, 17, 11258

Li₃₅Ln₉Si₃₀N₅₉O₂F with Ln = Ce, Pr - Highly Condensed Nitridosilicates

S. Lupart, D. Durach, W. Schnick
Z. Anorg. Allg. Chem. **2011**, 637, 1841

LiSr₂[TaN₃]F - A Single Chain Nitridotantalate

P. Pust, W. Schnick
Z. Anorg. Allg. Chem. **2011**, 637, 1486

Self-Assembly of Melem on Ag(111) - Emergence of Porous Structures Based on Amino-Heptazine Hydrogen Bonds

J. Eichhorn, S. Schlögl, B.V. Lotsch, W. Schnick, W.M. Heckl, M. Lackinger
CrystEngComm **2011**, 13, 5559

Electronic Structure and Physical Properties of the Spinel-Type Phase of BeP₂N₄ from All-Electron Density Functional Calculations

W.Y. Ching, S. Aryal, P. Rulis, W. Schnick
Phys. Rev. B **2011**, 83, 155109-1

Li₂Sr₄[Si₂N₅]N - A Layered Lithium Nitridosilicate Nitride

S. Lupart, S. Pagano, O. Oeckler, W. Schnick
Eur. J. Inorg. Chem. **2011**, 2118

Ca₃N₂ and Mg₃N₂: Unpredicted High-Pressure Behavior of Binary Nitrides

C. Braun, S.L. Börger, T.D. Boyko, G. Miehe, H. Ehrenberg, P. Höhn, A. Moewes, W. Schnick
J. Am. Chem. Soc. **2011**, 133, 4307

High-Pressure Synthesis, Crystal Structure, and Characterization of Zn₂PN₃ – A New *catena*-Polynitridophosphate

S.J. Sedlmaier, M. Eberspächer, W. Schnick
Z. Anorg. Allg. Chem. **2011**, 637, 362

Nitridosilicates and Oxonitridosilicates: From Ceramic Materials to Structural and Functional Diversity

M. Zeuner, S. Pagano, W. Schnick
Angew. Chem. **2011**, 123, 7898; *Angew. Chem. Int. Ed.* **2011**, 50, 7754

Poly(triazine imide) with Intercalation of Lithium and Chloride Ions [(C₃N₃)₂(NH_xLi_{1-x})₃·LiCl]: A Crystalline 2D Carbon Nitride Network

E. Wirnhier, M. Döblinger, D. Gunzelmann, J. Senker, B.V. Lotsch, W. Schnick
Chem. Eur. J. **2011**, 17, 3213

Red-Emitting Luminescent Materials and Light-Emitting Devices Using Them

P.J. Schmidt, M. Zeuner, W. Schnick, S. Pagano
PCT Int. Appl. **2010**, WO 2010119375 A1, Philips Intellectual Property & Standards GmbH, Germany, Koninklijke Philips Electronics NV

Li₂CaSi₂N₄ and Li₂SrSi₂N₄ - A Synthetic Approach to Three-Dimensional Lithium Nitridosilicates

M. Zeuner, S. Pagano, S. Hug, P. Pust, S. Schmiechen, C. Scheu, W. Schnick
Eur. J. Inorg. Chem. **2010**, 4945

K₃[C₃N₃(COO)₃] · 2H₂O – Crystal Structure of a New Alkali Derivative of the Multidentate Ligand Triazine Tricarboxylate

S.J. Makowski, M. Hörmannsdorfer, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 2584

Melemium Hydrogensulfate H₃C₆N₇(NH₂)₃(HSO₄)₃ – The First Triple Protonation of Melem

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 2589

Li₄Ca₃Si₂N₆ and Li₄Sr₃Si₂N₆ - Quaternary Lithium Nitridosilicates with Isolated [Si₂N₆]¹⁰⁻ Ions

S. Pagano, S. Lupart, S. Schmiechen, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 1907

Synthesis of Rare Earth (Oxo)nitridocarbonates by Employment of Supercritical Carbon Dioxide, Single-Source Precursor, Solid-State and Ion Exchange Reactions

S. Pagano, M. Zeuner, U. Baisch, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 2212

Material Properties and Structural Characterization of $M_3Si_6O_{12}N_2 \cdot Eu^{2+}$ (M = Ba, Sr) – A Comprehensive Study on a Promising Green Phosphor for pc-LEDs

C. Braun, M. Seibald, S.L. Börger, O. Oeckler, T.D. Boyko, A. Moewes, G. Mieke, A. Tücks, W. Schnick
Chem. Eur. J. **2010**, 16, 9646

A Novel Nitridogallate Fluoride $LiBa_5GaN_3F_5$ – Synthesis, Crystal Structure, and Band Gap Determination

F. Hintze, W. Schnick
Solid State Sci. **2010**, 12, 1368

Chain-Type Lithium Rare-Earth Nitridosilicates $Li_5Ln_5Si_4N_{12}$ with Ln = La, Ce

S. Lupart, M. Zeuner, S. Pagano, W. Schnick
Eur. J. Inorg. Chem. **2010**, 2636

Phenakite-Type BeP_2N_4 – A Possible Precursor for a New Hard Spinel-Type Material

F.J. Pucher, S.R. Römer, F.W. Karau, W. Schnick
Chem. Eur. J. **2010**, 16, 7208

Melemium Methylsulfonates $HC_6N_7(NH_2)_3H_2C_6N_7(NH_2)_3(SO_3Me)_3 \cdot H_2O$ and $H_2C_6N_7(NH_2)_3(SO_3Me)_2 \cdot H_2O$

A. Sattler, S. Schönberger, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 476

Tackling the Stacking Disorder of Melon – Structure Elucidation in a Semicrystalline Material

L. Seyfarth, J. Seyfarth, B.V. Lotsch, W. Schnick, J. Senker
Phys. Chem. Chem. Phys. **2010**, 12, 2227

$Ln_3[SiON_3]O$ (Ln = La, Ce, Pr) – Three Oxonitridosilicate Oxides with Crystal Structures Derived from the Anti-Perovskite Structure Type

J.A. Kechele, C. Schmolke, S. Lupart, W. Schnick
Z. Anorg. Allg. Chem. **2010**, 636, 176

On the Formation and Decomposition of the Melonate Ion in Cyanate and Thiocyanate Melts and the Crystal Structure of Potassium Melonate, $K_3[C_6N_7(NCN)_3]$

A. Sattler, W. Schnick
Eur. J. Inorg. Chem. **2009**, 4972

Melamine-Melem Adduct Phases: Investigating the Thermal Condensation of Melamine

A. Sattler, S. Pagano, M. Zeuner, A. Zurawski, D. Gunzelmann, J. Senker, K. Müller-Buschbaum, W. Schnick
Chem. Eur. J. **2009**, 15, 13161

Shine a Light with Nitrides

W. Schnick
Phys. Status Solidi RRL **2009**, 3, A113

Mixed Valence Europium Nitridosilicate Eu_2SiN_3

M. Zeuner, S. Pagano, P. Matthes, D. Bichler, D. Johrendt, T. Harmening, R. Pöttgen, W. Schnick
J. Am. Chem. Soc. **2009**, 131, 11242

$Rb_3[C_6N_7(NCN)_3] \cdot 3H_2O$ and $Cs_3[C_6N_7(NCN)_3] \cdot 3H_2O$ – Synthesis, Crystal Structure and Thermal Behavior of Two Novel Alkali Melonates

S.J. Makowski, W. Schnick
Z. Anorg. Allg. Chem. **2009**, 635, 2197

Light Emitting Device Comprising a Green Emitting Sialon-Based Material

P.J.Schmidt, W. Mayr, J. Meyer, J.A. Kechele, W. Schnick, O.M. Oeckler
PCT Int. Appl. **2009**, WO 2009072043 A1, Philips Intellectual Property & Standards GmbH, Germany,
Koninklijke Philips Electronics NV

Tuning the Dimensionality of Nitridosilicates in Lithium Melts

S. Pagano, S. Lupart, M. Zeuner, W. Schnick
Angew. Chem. **2009**, *121*, 6453; *Angew. Chem. Int. Ed.* **2009**, *48*, 6335

Protonated Melonate $\text{Ca}[\text{HC}_6\text{N}_7(\text{NCN})_3] \cdot 7\text{H}_2\text{O}$ - Synthesis, Crystal Structure, and Thermal Properties

S.J. Makowski, D. Gunzelmann, J. Senker, W. Schnick
Z. Anorg. Allg. Chem. **2009**, *635*, 2434

Complex Interrupted Tetrahedral Frameworks in the Nitridosilicates $\text{M}_7\text{Si}_6\text{N}_{15}$ (M = La, Ce, Pr)

C. Schmolke, O. Oeckler, D. Bichler, D. Johrendt, W. Schnick
Chem. Eur. J. **2009**, *15*, 9215

High-Pressure Phases and Transitions of the Layered Alkaline Earth Nitridosilicates SrSiN_2 and BaSiN_2

S.R. Römer, P. Kroll, W. Schnick
J. Phys.: Condens. Matter **2009**, *21*, 275408

$(\text{Sr}_{1-x}\text{Ca}_x)_{(11+16y-25z)/2}(\text{Si}_{1-y}\text{Al}_y)_{16}(\text{N}_{1-z}\text{O}_z)_{25}$ ($x \approx 0.24$, $y \approx 0.18$, $z \approx 0.19$) – A Novel Sialon with a Highly Condensed Silicate Framework

J.A. Kechele, O. Oeckler, P.J. Schmidt, W. Schnick
Eur. J. Inorg. Chem. **2009**, 3326

A Density Functional Study of the High-Pressure Chemistry of MSiN_2 (M = Be, Mg, Ca): Prediction of High-Pressure Phases and Examination of Pressure-Induced Decomposition

S.R. Römer, P. Kroll, W. Schnick
J. Phys.: Condens. Matter **2009**, *21*, 275407

$\text{Pr}_5\text{Si}_3\text{N}_9$

S. Lupart, W. Schnick
Acta Crystallogr. **2009**, *E65*, i43

Group II Element Nitrides M_3N_2 Under Pressure: A Comparative Density Functional Study

S.R. Römer, T. Dörfler, P. Kroll, W. Schnick
Phys. Status Solidi (b) **2009**, *246*, 1604

One-Pot Synthesis of Single-Source Precursors for Nanocrystalline LED-Phosphors $\text{M}_2\text{Si}_5\text{N}_8:\text{Eu}^{2+}$ (M = Sr, Ba)

M. Zeuner, P.J. Schmidt, W. Schnick
Chem. Mater. **2009**, *21*, 2467

$\text{Sr}_3\text{P}_6\text{O}_6\text{N}_8$ – A Highly Condensed Layered Phosphate

S.J. Sedlmaier, J. Schmedt auf der Günne, W. Schnick
Dalton Trans. **2009**, 4081

$\text{Ba}_6\text{Si}_6\text{N}_{10}\text{O}_2(\text{CN}_2)$ - A Nitridosilicate with a NPO-Zeolite Structure Type Containing Carbodiimide Ions

S. Pagano, O. Oeckler, T. Schröder, W. Schnick
Eur. J. Inorg. Chem. **2009**, 2678

Metal(II) Cyamelurates Prepared from Aqueous Ammonia

A. Sattler, M.R. Budde, W. Schnick
Z. Anorg. Allg. Chem. **2009**, *635*, 1933

Urea Route to Homoleptic Cyanates – Characterization and Luminescence Properties of $[M(OCN)_2(\text{urea})]$ and $M(OCN)_2$ with $M = \text{Sr}, \text{Eu}$

S. Pagano, G. Montana, C. Wickleder, W. Schnick
Chem. Eur. J. **2009**, *15*, 6186

$\text{SrAlSi}_4\text{N}_7:\text{Eu}^{2+}$ – A Nitridoalumosilicate Phosphor for Warm White Light (pc)LEDs with Edge-Sharing Tetrahedra

C. Hecht, F. Stadler, P.J. Schmidt, J. Schmedt auf der Günne, V. Baumann, W. Schnick
Chem. Mater. **2009**, *21*, 1595

$\text{Sr}_5\text{Al}_{5+x}\text{Si}_{21-x}\text{N}_{35-x}\text{O}_{2+x}:\text{Eu}^{2+}$ ($x \approx 0$) – A Novel Green Phosphor for White Light pcLEDs with Disordered Intergrowth Structure

O. Oeckler, J.A. Kechele, H. Koss, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2009**, *15*, 5311

$\text{Ba}_2\text{AlSi}_5\text{N}_9$ – A New Host Lattice for Eu^{2+} -Doped Luminescent Materials Comprising a Nitridoalumosilicate Framework with Corner- and Edge-Sharing Tetrahedra

J.A. Kechele, C. Hecht, O. Oeckler, J. Schmedt auf der Günne, P.J. Schmidt, W. Schnick
Chem. Mater. **2009**, *21*, 1288

$\text{Cs}_{10}\text{Ta}_{29.27}\text{O}_{78}$

M. Zeuner, A. Hofer, W. Schnick
Acta Crystallogr. **2009**, *E65*, i12

Synthesis, Single Crystal Structure Determination and Rietveld Refinement of Cadmium Tetrametaphosphimate Octahydrate $\text{Cd}_2(\text{PO}_2\text{NH})_4 \cdot 8\text{H}_2\text{O}$

S.R. Römer, W. Schnick
Z. Anorg. Allg. Chem. **2009**, *635*, 1555

Structure Elucidation of Polyheptazine Imide by Electron Diffraction – A Templated 2D Carbon Nitride Network

M. Döblinger, B.V. Lotsch, J. Wack, J. Thun, J. Senker, W. Schnick
Chem. Commun. **2009**, 1541

Single-Crystal Structure Determination and Solid-State NMR Investigations of Lithium Nitridosilicate Li_2SiN_2 Synthesized by a Precursor Approach Employing Amorphous “ $\text{Si}(\text{CN})_2$ ”

S. Pagano, M. Zeuner, S. Hug, W. Schnick
Eur. J. Inorg. Chem. **2009**, 1579

Low Temperature Precursor Route for Highly Efficient Spherically Shaped LED-Phosphors $\text{M}_2\text{Si}_5\text{N}_8:\text{Eu}^{2+}$ ($M = \text{Eu}, \text{Sr}, \text{Ba}$)

M. Zeuner, F. Hintze, W. Schnick
Chem. Mater. **2009**, *21*, 336

Density Functional Study of Calcium Nitride: Refined Geometries and Prediction of High-Pressure Phases

S.R. Römer, W. Schnick, P. Kroll
J. Phys. Chem. C **2009**, *113*, 2943

Color Point Tuning for $(\text{Sr}, \text{Ca}, \text{Ba})\text{Si}_2\text{O}_2\text{N}_2:\text{Eu}^{2+}$ for White Light LEDs

V. Bachmann, C. Ronda, O. Oeckler, W. Schnick, A. Meijerink
Chem. Mater. **2009**, *21*, 316

Compression Behaviour of Nitridocarbidosilicates $\text{M}_2[\text{Si}_4\text{N}_6\text{C}]$ $M = \text{Y}, \text{Ho}, \text{Er}$ - Studied with X-ray Diffraction and ab-initio Calculations

A. Friedrich, K. Knorr, B. Winkler, A. Lieb, H.A. Höpfe, W. Schnick, V. Milman, M. Hanfland
J. Phys. Chem. Solids **2009**, *70*, 97

La₁₆[Si₈N₂₂][SiON₃]₂ – A Nitridosilicate with Isolated, Corner-Sharing and Edge-Sharing Tetrahedra

C. Schmolke, S. Lupart, W. Schnick
Solid State Sci. **2009**, *11*, 305

Synthesis and Crystal Structure of the First Chain-Type Nitridosilicates RE₅Si₃N₉ (RE = La, Ce)

C. Schmolke, D. Bichler, D. Johrendt, W. Schnick
Solid State Sci. **2009**, *11*, 389

Structure Elucidation of BaSi₂O₂N₂ – A Host Lattice for Rare-Earth Doped Luminescent Materials in Phosphor Converted (pc)LEDs

J.A. Kechele, O. Oeckler, F. Stadler, W. Schnick
Solid State Sci. **2009**, *11*, 537

High-Pressure Synthesis and Characterization of the Alkaline Earth Borate β-BaB₄O₇

J.S. Knyrim, S.R. Römer, W. Schnick, H. Huppertz
Solid State Sci. **2009**, *11*, 336

Nitridogermanate Nitrides Sr₇[GeN₄]N₂ and Ca₇[GeN₄]N₂: Synthesis Employing Sodium Melts, Crystal Structure, and Density-Functional Theory Calculations

S.C. Junggeburth, O. Oeckler, D. Johrendt, W. Schnick
Inorg. Chem. **2008**, *47*, 12018

Red Emitting Oxynitride Luminescent Materials

P.J. Schmidt, F. Stadler, W. Schnick
PCT Int. Appl. **2008**, WO 2008096291 A1, Philips Intellectual Property & Standards GmbH, Germany, Koninklijke Philips Electronics NV

Red Emitting Luminescent Materials

P.J. Schmidt, W. Mayr, J. Meyer, W. Schnick, C.S. Hecht, F. Stadler
PCT Int. Appl. **2008**, WO 2008096300 A1, Philips Intellectual Property & Standards GmbH, Germany, Koninklijke Philips Electronics NV

HP-Ca₂Si₅N₈ - A New High-Pressure Nitridosilicate: Synthesis, Structure, Luminescence, and DFT Calculations

S.R. Römer, C. Braun, O. Oeckler, P.J. Schmidt, P. Kroll, W. Schnick
Chem. Eur. J. **2008**, *14*, 7892

Crystal Structure of Ammonium Catena-polyphosphate IV [NH₄PO₃]_x

S.J. Sedlmaier, W. Schnick
Z. Anorg. Allg. Chem. **2008**, *634*, 1501

Sr₅Ge₂N₆ – A Nitridogermanate with Edge-sharing Double Tetrahedra

S.C. Junggeburth, O. Oeckler, W. Schnick
Z. Anorg. Allg. Chem. **2008**, *634*, 1309

Di-μ-tert-butanolato-bis[bis(η⁵-cyclopentadienyl)erbium(III)]

S. Pagano, W. Schnick
Acta Crystallogr. **2008**, *E64*, m473

C₆N₇H₃O₃·H₂N(CH₃)₂Cl·H₂O - A Dimethylammonium Chloride Adduct of Cyameluric Acid – Synthesis, Structure and Properties

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2008**, *634*, 1063

Tl₄(PO₂NH)₄·H₂O – A Commensurately Modulated Tetrametaphosphimate

S.J. Sedlmaier, O. Oeckler, W. Schnick
Solid State Sci. **2008**, *10*, 1150

Preparation and Structure of Melemium Melem Perchlorate $\text{HC}_6\text{N}_7(\text{NH}_2)_3\text{ClO}_4 \cdot \text{C}_6\text{N}_7(\text{NH}_2)_3$

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2008**, 634, 457

Precursor Approach to Lanthanide Dioxo Monocarbodiimides $\text{Ln}_2\text{O}_2\text{CN}_2$ ($\text{Ln} = \text{Y}, \text{Ho}, \text{Er}, \text{Yb}$) by Insertion of CO_2 into Organometallic Ln-N Compounds

M. Zeuner, S. Pagano, W. Schnick
Chem. Eur. J. **2008**, 14, 1524

Cubic Di- μ -amido-bis[bis(η^5 -cyclopentadienyl)ytterbium(III)]

M. Zeuner, W. Schnick
Acta Crystallogr. **2007**, E63, m2581

Reorientational Dynamics and Solid-Phase Transformation of Ammonium Dicyanamide into Dicyandiamide: A ^2H Solid-State NMR Study

B.V. Lotsch, W. Schnick, E. Naumann, J. Senker
J. Phys. Chem. B **2007**, 111, 11680

Synthesis and Crystal Structure of Sodium Copper Tetrametaphosphimate Heptahydrate $\text{Na}_2\text{Cu}(\text{PO}_2\text{NH})_4 \cdot 7\text{H}_2\text{O}$ and Sodium Potassium Copper Tetrametaphosphimate Heptahydrate $\text{K}_x\text{Na}_{2-x}\text{Cu}(\text{PO}_2\text{NH})_4 \cdot 7\text{H}_2\text{O}$

S.R. Römer, W. Schnick
Solid State Sci. **2007**, 9, 644

The Crystal Structures of Two Non-Metal Tricyanomelaminates: Diammonium Tricyanomelamine Dihydrate $(\text{NH}_4)_2[\text{C}_6\text{N}_9\text{H}] \cdot 2\text{H}_2\text{O}$ and Dimelaminium Tricyanomelamine Melamine Dihydrate $[\text{C}_3\text{N}_6\text{H}_7]_2[\text{C}_6\text{N}_9\text{H}] \cdot \text{C}_3\text{N}_6\text{H}_6 \cdot 2\text{H}_2\text{O}$

B.V. Lotsch, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 1435

The Stuffed Framework Structure of SrP_2N_4 : Challenges to Synthesis and Crystal Structure Determination

F.W. Karau, L. Seyfarth, O. Oeckler, J. Senker, K. Landskron, W. Schnick
Chem. Eur. J. **2007**, 13, 6841

Synthesis, Crystal Structure and Properties of the Trimetaphosphimates $\text{Na}_2\text{M}(\text{PO}_2\text{NH})_3 \cdot 2\text{H}_2\text{O}$ with $\text{M} = \text{K}, \text{TI}$

S.J. Sedlmaier, D. Johrendt, O. Oeckler, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 2217

Coupled Al/Si and O/N Order/Disorder in $\text{BaYb}[\text{Si}_{4-x}\text{Al}_x\text{O}_x\text{N}_{7-x}]$ Sialon: Neutron Powder Diffraction and Monte Carlo Simulations

V.L. Vinograd, E.A. Juarez-Arellano, A. Lieb, K. Knorr, W. Schnick, J.D. Gale, B. Winkler
Z. Kristallogr. **2007**, 222, 402

New Light on an Old Story: Formation of Melam during Thermal Condensation of Melamine

B.V. Lotsch, W. Schnick
Chem. Eur. J. **2007**, 13, 4956

Unmasking Melon by a Complimentary Approach Employing Electron Diffraction, Solid-State NMR Spectroscopy and Theoretical Calculations - Structural Characterization of a Carbon Nitride Polymer

B.V. Lotsch, M. Döblinger, J. Sehnert, L. Seyfarth, J. Senker, O. Oeckler, W. Schnick
Chem. Eur. J. **2007**, 13, 4969

Das reduzierte Nitridosilicat BaSi_6N_8

F. Stadler, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 589

Zn₈[P₁₂N₂₄]O₂ – ein Nitridophosphat-oxid mit Sodalith-Struktur

F. Karau, O. Oeckler, F. Schäfers, R. Niewa, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 1333

**Rare-Earth Tricyanomelaminates [NH₄]Ln[HC₆N₉]₂[H₂O]₇·H₂O
(Ln = La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy): Structural Investigation, Solid-State NMR Spectroscopy,
and Photoluminescence**

A. Nag, B.V. Lotsch, J. Schmedt auf der Günne, O. Oeckler, P.J. Schmidt, W. Schnick
Chem. Eur. J. **2007**, 13, 3512

Real Structure of SrSi₂O₂N₂

O. Oeckler, F. Stadler, T. Rosenthal, W. Schnick
Solid State Sci. **2007**, 9, 205

**The Sialons *MLn*[Si_{4-x}Al_xO_xN_{7-x}] with *M* = Eu, Sr, Ba and *Ln* = Ho-Yb-
Twelve Substitution Variants with the *MYb*[Si₄N₇] Structure Type**

A. Lieb, J.A. Kechele, R. Kraut, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 166

**Synthese von Cadmiumnitrid Cd₃N₂ durch thermischen Abbau von Cadmiumazid Cd(N₃)₂ und
Kristallstrukturbestimmung aus Röntgen-Pulverbeugungsdaten**

F. Karau, W. Schnick
Z. Anorg. Allg. Chem. **2007**, 633, 223

**Synthesis and Characterization of Tb[N(CN)₂]₃·2H₂O and Eu[N(CN)₂]₃·2H₂O:
Two New Luminescent Rare-Earth Dicyanamides**

A. Nag, P.J. Schmidt, W. Schnick
Chem. Mater. **2006**, 18, 5738

Illumination System Comprising a Radiation Source and a Blue-Emitting Phosphor

P.J. Schmidt, B.S. Schreinemacher, W. Schnick, F.M. Stadler, J. Meyer
PCT Int. Appl. **2006**, WO 2006061778 A1, Philips Intellectual Property & Standards GmbH,
Germany, Koninklijke Philips Electronics NV, Lumileds Lighting US, Llc.

**Carbon Dioxide Fixation of Organolanthanides and Thermal Degradation into Amorphous and
Higher Condensed Ln/O/C/N Solids**

U. Baisch, S. Pagano, M. Zeuner, W. Schnick
Eur. J. Inorg. Chem. **2006**, 3517

**Crystal Structure, Physical Properties and HRTEM Investigation of the New
Oxonitridosilicate EuSi₂O₂N₂**

F. Stadler, O. Oeckler, H.A. Höpfe, M.H. Möller, R. Pöttgen, B.D. Mosel, P. Schmidt, V. Duppel,
A. Simon, W. Schnick
Chem. Eur. J. **2006**, 12, 6984

Zur Frage der Tautomerie von Cyamelursäure im Kristall

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 1518

A Nitridic Clathrate: P₄N₄(NH)₄(NH₃)

F. Karau, W. Schnick
Angew. Chem. **2006**, 118, 4617; *Angew. Chem. Int. Ed.* **2006**, 45, 4505

**Synthesis, Structure, and Dynamics of Tris(η⁵-cyclopentadienyl)lanthanides and
Bis(η⁵-cyclopentadienyl)[bis(trimethylsilyl)amido]cerium(III)**

U. Baisch, S. Pagano, M. Zeuner, J. Schmedt auf der Günne, O. Oeckler, W. Schnick
Organometallics **2006**, 25, 3027

Compressibility of the Nitridosilicate $\text{SrYb}[\text{Si}_4\text{N}_7]$ and the Oxonitridoaluminosilicates

$\text{MYb}[\text{Si}_{4-x}\text{Al}_x\text{O}_x\text{N}_{7-x}]$ ($x = 2$; $M = \text{Sr}, \text{Ba}$)

E.A. Juarez-Arellano, A. Friedrich, K. Knorr, A. Lieb, B. Winkler, M. Amboage,
M. Hanfland, W. Schnick
Acta Crystallogr. **2006**, B62, 424

Single-Crystal X-ray Diffraction and Electron Microprobe Analysis of the Structurally Related J-Phases $\text{Nd}_4[\text{Si}_2\text{O}_5\text{N}_2]\text{O}_2$, $\text{Nd}_4[\text{Si}_{2-x}\text{Al}_x\text{O}_{5+x}\text{N}_{2-x}]\text{O}_2$ with $x \approx 0.4$ and $\text{Sr}_x\text{Ho}_{4-x}[\text{Si}_{2-y}\text{Al}_y\text{O}_{5+(x+y)}\text{N}_{2-(x+y)}]\text{O}_2$ with $x \approx 0.2$ and $y \approx 0.4$

A. Lieb, R. Kraut, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 1496

Synthesis and Structural Characterization of the Ammelinium Salts $[\text{C}_3\text{H}_6\text{N}_5\text{O}]\text{Cl}$, $[\text{C}_3\text{H}_6\text{N}_5\text{O}]\text{Br}$, and $[\text{C}_3\text{H}_6\text{N}_5\text{O}]\text{NO}_3$

B.V. Lotsch, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 1457

Illumination System Comprising a Radiation Source and a Fluorescent Material

T. Juestel, P. Schmidt, W. Schnick, F.M. Stadler
PCT Int. Appl. **2006**, WO 2006006099 A1, 31 pp, Philips Intellectual Property & Standards GmbH,
Germany, Koninklijke Philips Electronics NV, Lumileds Lighting US, Llc.

Crystal Structure of the High-Pressure Phase of the Oxonitridosilicate Chloride $\text{Ce}_4[\text{Si}_4\text{O}_{3+x}\text{N}_{7-x}]\text{Cl}_{1-x}\text{O}_x$, $x \approx 0.2$

A. Friedrich, E. Haussühl, W. Morgenroth, A. Lieb, B. Winkler, K. Knorr, W. Schnick
Acta Crystallogr. **2006**, B62, 205

Nanocrystalline Lanthanide Nitride Materials Synthesized by Thermal Treatment of Amido and Ammine Metallocenes: X-ray Studies and DFT Calculations

U. Baisch, S. Pagano, M. Zeuner, N. Barros, L. Maron, W. Schnick
Chem. Eur. J. **2006**, 12, 4785

From Triazines to Heptazines: Novel Nonmetal Tricyanomelaminates as Precursors for Graphitic Carbon Nitride Materials

B.V. Lotsch, W. Schnick
Chem. Mater. **2006**, 18, 1891

Synthesis, Crystal Structure and Thermal Behavior of Gadolinium Dicyanamide Dihydrate $\text{Gd}[\text{N}(\text{CN})_2]_3 \cdot 2\text{H}_2\text{O}$

A. Nag, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 609

Kristallstruktur von Natrium-Dihydrogencyamelurat-Tetrahydrat $\text{Na}[\text{H}_2(\text{C}_6\text{N}_7)\text{O}_3] \cdot 4\text{H}_2\text{O}$

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 531

Die neuen Schichtsilicate $\text{Ba}_3\text{Si}_6\text{O}_9\text{N}_4$ und $\text{Eu}_3\text{Si}_6\text{O}_9\text{N}_4$

F. Stadler, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 949

$\text{Pr}_{10}[\text{Si}_{10-x}\text{Al}_x\text{O}_{9+x}\text{N}_{17-x}]\text{Cl}$ with $x \approx 1$ - An Oxonitridoaluminosilicate Chloride

A. Lieb, R. Lauterbach, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 313

$\text{BaSm}_5[\text{Si}_9\text{Al}_3\text{N}_{20}]\text{O}$ – A Nitridoaluminosilicate Oxide with a New Structure Type Composed of “Star-Shaped” $[\text{N}^{[4]}(\text{Si},\text{Al})\text{N}_3]_4$ Units as Secondary Building Units

A. Lieb, W. Schnick
Solid State Sci. **2006**, 8, 185

Hochdrucksynthese von $\text{BaSr}_2\text{P}_6\text{N}_{12}$ und $\text{BaCa}_2\text{P}_6\text{N}_{12}$ und Strukturvergleich der Reihe BaP_2N_4 , $\text{BaCa}_2\text{P}_6\text{N}_{12}$ und $\text{BaSr}_2\text{P}_6\text{N}_{12}$

F. Karau, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 231

Zur Kenntnis der Kristallstruktur von Melem $\text{C}_6\text{N}_7(\text{NH}_2)_3$

A. Sattler, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 238

Illumination System Comprising a Radiation Source and a Fluorescent Material

P.J. Schmidt, T. Juestel, H. Hoeppe, W. Schnick
PCT Int. Appl. **2005**, WO 2005083037 A1, 33 pp., Philips Intellectual Property & Standards GmbH, Germany; Koninklijke Philips Electronics N.V.; Lumileds Lighting U.S. Llc.

Darstellung und Kristallstruktur von Diamminmagnesiumdiazid $\text{Mg}(\text{NH}_3)_2(\text{N}_3)_2$

F. Karau, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 49

Syntheses and Crystal Structure of Lithium Tetrametaphosphimate Tetrahydrate

$\text{Li}_4(\text{PO}_2\text{NH})_4 \cdot 4\text{H}_2\text{O}$
S.R. Römer, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 59

Synthese, Kristallstruktur und festkörper-NMR-spektroskopische Untersuchung neuer Oxonitridosilicate der Mischkristallreihe $\text{Ba}_{4-x}\text{Ca}_x\text{Si}_6\text{N}_{10}\text{O}$

F. Stadler, O. Oeckler, W. Schnick
Z. Anorg. Allg. Chem. **2006**, 632, 54

$\text{Ce}_{10}[\text{Si}_{10}\text{O}_9\text{N}_{17}]\text{Br}$, $\text{Nd}_{10}[\text{Si}_{10}\text{O}_9\text{N}_{17}]\text{Br}$ and $\text{Nd}_{10}[\text{Si}_{10}\text{O}_9\text{N}_{17}]\text{Cl}$ Oxonitridosilicate Halides with a New Layered Structure Type

A. Lieb, W. Schnick
J. Solid State Chem. **2005**, 178, 3323

Crystal Structure of Guanylurea Sulphate Hydrate $[\text{H}_2\text{NC}(=\text{O})\text{NHC}(\text{NH}_2)_2]_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$

B.V. Lotsch, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 2967

Synthesis, Crystal Structures and Properties of the Trimetaphosphimates $\text{NaBa}(\text{PO}_2\text{NH})_3$, $\text{KSr}(\text{PO}_2\text{NH})_3 \cdot 4\text{H}_2\text{O}$, and $\text{NH}_4\text{Sr}(\text{PO}_2\text{NH})_3 \cdot 4\text{H}_2\text{O}$

S. Correll, S. Sedlmaier, W. Schnick
Solid State Sci. **2005**, 7, 1261

Darstellung und Kristallstruktur von Cadmiumazid $\text{Cd}(\text{N}_3)_2$

F. Karau, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 2315

Thermal Conversion of Guanylurea Dicyanamide into Graphitic Carbon Nitride via Prototype CN_x Precursors

B.V. Lotsch, W. Schnick
Chem. Mater. **2005**, 17, 3976

Synthesis and Crystal Structure Determination by X-ray Powder Diffraction of Nickel Tetrametaphosphimate Octahydrate $\text{Ni}_2(\text{PO}_2\text{NH})_4 \cdot 8\text{H}_2\text{O}$

S.R. Römer, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 1749

Synthese, Kristallstruktur und Festkörper-NMR-spektroskopische Untersuchung des Oxonitridosilicates $\text{BaSi}_6\text{N}_8\text{O}$

F. Stadler, R. Kraut, O. Oeckler, S. Schmid, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 1773

Highly Efficient All-Nitride Phosphor-Converted White Light Emitting Diode

R. Mueller-Mach, G. Mueller, M.R. Krames, H.A. Höpfe, F. Stadler, W. Schnick, T. Juestel, P. Schmidt
Phys. Status Solidi (a) **2005**, 202, 1727

Synthesen, Kristallstrukturen und spektroskopische Eigenschaften des Melem-Adduktes $\text{C}_6\text{N}_7(\text{NH}_2)_3 \cdot \text{H}_3\text{PO}_4$ sowie der Melemium-Salze $(\text{H}_2\text{C}_6\text{N}_7(\text{NH}_2)_3)\text{SO}_4 \cdot 2\text{H}_2\text{O}$ und $(\text{HC}_6\text{N}_7(\text{NH}_2)_3)\text{ClO}_4 \cdot \text{H}_2\text{O}$

A. Sattler, L. Seyfarth, J. Senker, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 2545

Synthese, Kristallstruktur und Eigenschaften von Chrom(III)-trimetaphosphimat-Heptahydrat, $\text{Cr}(\text{PO}_2\text{NH})_3 \cdot 7 \text{H}_2\text{O}$

S. Correll, S. Sedlmaier, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 1359

Synthesis, Crystal Structure Determination from X-Ray Powder Diffractometry and Vibrational Spectroscopic Properties of $\text{Mg}[\text{N}(\text{CN})_2]_2 \cdot 4\text{H}_2\text{O}$

E. Irran, B. Jürgens, S. Schmid, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 1512

Catalytic Formation and Crystal Structure of Cyanoguanylurea $\text{H}_2\text{NC}(\text{=O})\text{NHC}(\text{NH}_2)\text{NCN}$

B.V. Lotsch, W. Schnick
Z. Naturforsch. **2005**, 60b, 377

Crystal Structure and Mechanical Properties of $\text{SrSi}_7\text{N}_{10}$

G. Pilet, H.A. Höpfe, W. Schnick, S. Esmailzadeh
Solid State Sci. **2005**, 7, 391

Synthese, Kristallstruktur und spektroskopische Untersuchungen von $\text{Ba}_5[\text{BO}_3]_3\text{CN}$

S. Schmid, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 1139

High-Pressure Synthesis and X-ray Powder Structure Determination of the Nitridophosphate BaP_2N_4

F. W. Karau, W. Schnick
J. Solid State Chem. **2005**, 178, 135

Synthesis and Characterization of the Rare-Earth Dicyanamides $\text{Ln}[\text{N}(\text{CN})_2]_3$ with $\text{Ln} = \text{La}, \text{Ce}, \text{Pr}, \text{Nd}, \text{Sm}, \text{and Eu}$

B. Jürgens, E. Irran, W. Schnick
J. Solid State Chem. **2005**, 178, 72

Oxonitridosilicate Chlorides – Synthesis, Single-Crystal X-ray and Neutron Powder Diffraction, Chemical Analysis and Properties of $\text{Ln}_4[\text{Si}_4\text{O}_{3+x}\text{N}_{7-x}]\text{Cl}_{1-x}\text{O}_x$ with $\text{Ln} = \text{Ce}, \text{Pr}, \text{Nd}$ and $x \approx 0.2$

A. Lieb, M.T. Weller, P.F. Henry, R. Niewa, R. Pöttgen, R.-D. Hoffmann, H.E. Höfer, W. Schnick
J. Solid State Chem. **2005**, 178, 976

SrSi_6N_8 – A Reduced Nitridosilicate with a Si-Si Bond

F. Stadler, O. Oeckler, J. Senker, H. A. Höpfe, P. Kroll, W. Schnick
Angew. Chem. **2005**, 117, 573; *Angew. Chem. Int. Ed.* **2005**, 44, 567

Syntheses, Crystal Structures and Properties of the Tetrametaphosphimates $\text{M}^{\text{II}}_2(\text{PO}_2\text{NH})_4 \cdot 8\text{H}_2\text{O}$ with $\text{M}^{\text{II}} = \text{Mg}, \text{Mn}, \text{Co}$ and Zn

S.R. Römer, W. Schnick
Z. Anorg. Allg. Chem. **2005**, 631, 31

High-Pressure Phase Transition of the Oxonitridosilicate Chloride $\text{Ce}_4[\text{Si}_4\text{O}_{3+x}\text{N}_{7-x}]\text{Cl}_{1-x}\text{O}_x$ with $x = 0.12$ and 0.18

A. Friedrich, K. Knorr, A. Lieb, S. Rath, M. Hanfland, B. Winkler, W. Schnick
Z. Kristallogr. **2005**, 220, 245

Crystal Structure and Thermal Solid-State Reactivity of Ammonium Cyanoureate $\text{NH}_4[\text{H}_2\text{NC(=O)NCN}]$

B.V. Lotsch, W. Schnick
Z. Naturforsch. **2004**, 59b, 1229

Illumination System Comprising a Radiation Source and a Fluorescent Lanthanide-Doped Metal Oxide Nitride Silicate Phosphor

T. Juestel, P. Schmidt, H. Hoeppe, W. Schnick, W. Mayr
PCT Int. Appl. **2004**, WO 2004055910 A1, 24 pp., Philips Intellectual Property & Standards GmbH, Germany; Koninklijke Philips Electronics N.V.; Lumileds Lighting U.S. Llc.

$\text{Li}_{12-x}\text{H}_{x-y+z}[\text{P}_{12}\text{O}_y\text{N}_{24-y}]\text{X}_z$ (X = Cl, Br) – Oxonitridophosphate mit NPO-Zeolithstruktur

S. Correll, N. Stock, O. Oeckler, J. Senker, T. Nilges, W. Schnick
Z. Anorg. Allg. Chem. **2004**, 630, 2205

Plasma Display Screen with Blue-Emitting Phosphor

T. Jüstel, W. Mayr, P.J. Schmidt, W. Schnick
PCT Int. Appl. **2004**, WO 2004047138 A2, 10 pp., Philips Intellectual Property & Standards GmbH, Germany; Koninklijke Philips Electronics NV.

Illumination System Comprising a Radiation Source and a Fluorescent Material

P. Schmidt, T. Juestel, H. Hoeppe, W. Schnick, W. Mayr
PCT Int. Appl. **2005**, WO 2005116163 A1, 35 pp, Philips Intellectual Property & Standards GmbH, Germany; Koninklijke Philips Electronics NV; Lumileds Lighting US, Llc.

$\text{Ca}[\text{Si}_2\text{O}_2\text{N}_2]$ – A Novel Layer Silicate

H.A. Höpfe, F. Stadler, O. Oeckler, W. Schnick
Angew. Chem. **2004**, 116, 5656; *Angew. Chem. Int. Ed.* **2004**, 43, 5540

Towards Novel C-N Materials: Crystal Structures of Two Polymorphs of Guanidinium Dicyanamide and Their Thermal Conversion into Melamine

B.V. Lotsch, W. Schnick
New J. Chem. **2004**, 28, 1129

Europium-Activated Alkaline Earth Silicon Nitride Oxide Phosphors and Luminescent Screens and Light-Emitting Devices Employing the Phosphors

P. Schmidt, T. Juestel, W. Mayr, H.-D. Bausen, W. Schnick, H. Hoeppe
PCT Int. Appl. **2004**, WO 2004036962 A1, 25 pp., Philips Intellectual Property & Standards GmbH, Germany; Koninklijke Philips Electronics NV; Lumileds Lighting US, Llc.

Rubidium Metaborate, $\text{Rb}_3\text{B}_3\text{O}_6$

S. Schmid, W. Schnick
Acta Crystallogr. **2004**, C60, i69

Synthesis, Crystal Structures and Properties of the Bis-(trimetaphosphimato)-metallates

$\text{Na}_4\{\text{Co}[(\text{PO}_2\text{NH})_3]_2\} \cdot 12\text{H}_2\text{O}$ and $\text{Na}_4\{\text{Ni}[(\text{PO}_2\text{NH})_3]_2\} \cdot 12\text{H}_2\text{O}$

S. Correll, N. Stock, W. Schnick
Solid State Sci. **2004**, 6, 953

Nonlinear Optical Susceptibilities $\chi^{(2)}$ of Nitridosilicate Powders

H. Lutz, S. Joosten, J. Hoffmann, P. Lehmeier, A. Seilmeier, H. A. Höpfe, W. Schnick
J. Phys. Chem. Solids **2004**, 65, 1285

Magnetic Investigations and ^{151}Eu Mössbauer Spectroscopy of $M\text{YbSi}_4\text{N}_7$ with $M = \text{Sr}, \text{Ba}, \text{Eu}$

H.A. Höpfe, H. Trill, G. Kotzyba, B.D. Mosel, R. Pöttgen, W. Schnick

Z. Anorg. Allg. Chem. **2004**, 630, 224

Phase Transition of a Dicyanamide with Rutile-Like Structure: Syntheses and Crystal Structures of α - and β - $\text{Cd}[\text{N}(\text{CN})_2]_2$

B. Jürgens, E. Irran, H.A. Höpfe, W. Schnick

Z. Anorg. Allg. Chem. **2004**, 630, 219

Characterization of the Thermally Induced Topochemical Solid-State Transformation of $\text{NH}_4[\text{N}(\text{CN})_2]$ into $\text{NCN}=\text{C}(\text{NH}_2)_2$ by Means of X-ray and Neutron Diffraction as well as Raman and Solid-State NMR Spectroscopy

B.V. Lotsch, J. Senker, W. Schnick

Inorg. Chem. **2004**, 43, 895

Synthesis, Crystal Structure and Properties of Rubidium Dihydrogentricyanomelaminat Semihydrate $\text{Rb}[\text{H}_2\text{C}_6\text{N}_9] \cdot \frac{1}{2}\text{H}_2\text{O}$

B. Jürgens, H.A. Höpfe, W. Schnick

Z. Anorg. Allg. Chem. **2004**, 630, 35

Synthese und Kristallstruktur von *bis*-1,3-Dimethoxyethan-trichloro-samarium(III) und *tris*-N,N-Diisopropylcarbamato-samarium(III)

U. Baisch, W. Schnick

Z. Anorg. Allg. Chem. **2003**, 629, 2073

Investigation of Structural and Dynamic Properties of $\text{NH}_4[\text{N}(\text{CN})_2]$ by Means of X-ray and Neutron Powder Diffraction as well as Vibrational and Solid-State NMR Spectroscopy

B.V. Lotsch, J. Senker, W. Kockelmann, W. Schnick

J. Solid State Chem. **2003**, 176, 180

Melem (2,5,8-Triamino-tri-s-triazine), an Important Intermediate During Condensation of Melamine Rings to Graphitic Carbon Nitride: Synthesis, Structure Determination by X-ray Powder Diffractometry, Solid-State NMR, and Theoretical Studies

B. Jürgens, E. Irran, J. Senker, P. Kroll, H. Müller, W. Schnick

J. Am. Chem. Soc. **2003**, 125, 10288

Synthesis, Spectroscopic Properties, and Crystal Structure of the Oxonium Acid $[\text{H}(\text{OEt}_2)_2]^+ [\text{Ti}_2\text{Cl}_9]^-$

S. Rannabauer, T. Habereeder, H. Nöth, W. Schnick

Z. Naturforsch. **2003**, 58b, 745

$\text{Li}_x\text{H}_{12-x-y+z}[\text{P}_{12}\text{O}_y\text{N}_{24-y}]\text{Cl}_z$ – An Oxonitridophosphate with a Zeolitelike Framework Structure Composed of 3-Rings

S. Correll, N. Stock, O. Oeckler, W. Schnick

Angew. Chem. **2003**, 115, 3674; *Angew. Chem. Int. Ed.* **2003**, 42, 3549

High-Temperature Synthesis, Single-Crystal X-ray Structure Determination and Solid-State NMR Investigations of $\text{Ba}_7[\text{SiO}_4][\text{BO}_3]_3\text{CN}$ and $\text{Sr}_7[\text{SiO}_4][\text{BO}_3]_3\text{CN}$

S. Schmid, J. Senker, W. Schnick

J. Solid State Chem. **2003**, 174, 221

Synthese, Kristallstruktur und spektroskopische Charakterisierung von Bis(dimethylammonium)hexachlorotitanat $[\text{Me}_2\text{NH}_2]_2[\text{TiCl}_6]$

S. Rannabauer, W. Schnick

Z. Naturforsch. **2003**, 58b, 410

Synthesis and Structural Investigation of $\text{La}_{13}\text{Si}_{18}\text{Al}_{12}\text{O}_{15}\text{N}_{39}$

S. Esmailzadeh, W. Schnick

Solid State Sci. **2003**, 5, 503

Oligonary Nitrides and Oxonitrides of Si, P, Al, and B in Combination with Rare Earth or Transition Metals as well as Molecular Precursor Compounds with Nitrido Bridges M-N-Si (M = Ti, Zr, Hf, W, Sn)

W. Schnick, R. Bettenhausen, B. Götze, H.A. Höpfe, H. Huppertz, E. Irran, K. Köllisch, R. Lauterbach, M. Orth, S. Rannabauer, T. Schlieper, B. Schwarze, F. Wester
*Z. Anorg. Allg. Chem.***2003**, 629, 902

Synthesis, Crystal Structure Determination from X-ray Powder Diffractometry and Vibrational Spectroscopy of the Tricyanomelaminates Monohydrates $M_3[C_6N_9] \cdot H_2O$ (M = K, Rb)

E. Irran, B. Jürgens, W. Schnick
Solid State Sci. **2002**, 4, 1305

Transformation of Ammonium Dicyanamide into Dicyandiamide in the Solid

B. Jürgens, H.A. Höpfe, E. Irran, W. Schnick
*Inorg. Chem.***2002**, 41, 4849

A Density Functional Study of Phosphorus Nitride P_3N_5 : Refined Geometries, Properties, and Relative Stability of α - P_3N_5 and γ - P_3N_5 and a Further Possible High-Pressure Phase δ - P_3N_5 with Kyanite-Type Structure

P. Kroll, W. Schnick
Chem. Eur. J. **2002**, 8, 3530

Synthesis, Crystal Structure, Magnetism, and Optical Properties of $Gd_3[SiON_3]O$ - An Oxonitridosilicate Oxide with Noncondensed $SiON_3$ Tetrahedra

H.A. Höpfe, G. Kotzyba, R. Pöttgen, W. Schnick
J. Solid State Chem. **2002**, 167, 393

Synthese und Kristallstruktur des ersten Oxonitridoborates - $Sr_3[B_3O_3N_3]$

S. Schmid, W. Schnick
*Z. Anorg. Allg. Chem.***2002**, 628, 1192

Synthesis, Crystal Structure, Vibrational Spectroscopy, and Thermal Behaviour of Lead Dicyanamide $Pb[N(CN)_2]_2$

B. Jürgens, H.A. Höpfe, W. Schnick
Solid State Sci. **2002**, 4, 821

Multianvil-Synthese, Pulver-Röntgenstrukturanalyse, ^{31}P -MAS-NMR- und FTIR-Spektroskopie sowie Materialeigenschaften von γ - P_3N_5 , einer Hochdruckphase von binärem Phosphor(V)-nitrid mit verzerrt quadratischen PN_5 -Pyramiden und PN_4 -Tetraedern

K. Landskron, H. Huppertz, J. Senker, W. Schnick
*Z. Anorg. Allg. Chem.***2002**, 628, 1465

Reaktion von Bis(trimethylsilylamino)dichlorsilan mit Titan-tetrachlorid – Synthese und Kristallstruktur von $[\mu-CITiCl_2N(SiMe_3)SiCl_2NH_2]_2$

S. Rannabauer, R. Bettenhausen, W. Schnick
*Z. Anorg. Allg. Chem.***2002**, 628, 373

Hyperfine Interactions in the 13 K Ferromagnet $Eu_2Si_5N_8$

H.A. Höpfe, H. Trill, B.D. Mosel, H. Eckert, G. Kotzyba, R. Pöttgen, W. Schnick
*J. Phys. Chem. Solids***2002**, 63, 853

Systematic Investigation of Tri- and Tetrametaphosphimates

S. Correll, N. Stock, W. Schnick
*Phosphorus Sulfur Silicon Relat. Elem.***2001**, 168/169, 321

High-Temperature Synthesis, Crystal Structure, Optical Properties, and Magnetism of the Carbidonitridosilicates $Ho_2[Si_4N_6C]$ and $Tb_2[Si_4N_6C]$

H.A. Höpfe, G. Kotzyba, R. Pöttgen, W. Schnick
J. Mater. Chem. **2001**, 11, 3300

Vibrational Analysis of $\text{Ag}_3(\text{PO}_2\text{NH})_3$, $\text{Na}_3(\text{PO}_2\text{NH})_3 \cdot \text{H}_2\text{O}$, $\text{Na}_3(\text{PO}_2\text{NH})_3 \cdot 4\text{H}_2\text{O}$, $[\text{C}(\text{NH}_2)_3]_3(\text{PO}_2\text{NH})_3 \cdot \text{H}_2\text{O}$ and $(\text{NH}_4)_4(\text{PO}_2\text{NH})_4 \cdot 4\text{H}_2\text{O}$

A. John, D. Philip, N. Stock, W. Schnick, S. Devanarayanan
Spectrochimica Acta **2001**, A57, 959

Synthesis and Crystal Structure of $(\text{dmaaH})_2(\text{dmaH})_2[\text{P}_{12}\text{S}_{12}\text{N}_{12}(\text{NH})_2] \cdot 4 \text{ dmaa}$, $\text{dmaa} = \text{N,N-Dimethylacetamide}$, $\text{dma} = \text{Dimethylamine}$, an Anhydrous Example of the $\text{P}_{12}\text{N}_{14}$ Cage

S. Roth, W. Schnick
Z. Naturforsch. **2001**, 56b, 1020

Trimerization of Alkali Dicyanamides $\text{M}[\text{N}(\text{CN})_2]$ and Formation of Tricyanomelaminates $\text{M}_3[\text{C}_6\text{N}_9]$ ($\text{M} = \text{K}, \text{Rb}$) in the Melt: Crystal Structure Determination of Three Polymorphs of $\text{K}[\text{N}(\text{CN})_2]$, Two of $\text{Rb}[\text{N}(\text{CN})_2]$, and One of $\text{K}_3[\text{C}_6\text{N}_9]$ and $\text{Rb}_3[\text{C}_6\text{N}_9]$ from X-ray Powder Diffractometry

E. Irran, B. Jürgens, W. Schnick
Chem. Eur. J. **2001**, 7, 5372

Hochdruck-Synthese, Kristallstruktur und Eigenschaften von NaPN_2

K. Landskron, S. Schmid, W. Schnick
Z. Anorg. Allg. Chem. **2001**, 627, 2469

High-Pressure Synthesis of $\gamma\text{-P}_3\text{N}_5$ at 11 GPa and 1500 °C in a Multianvil Assembly: A Binary Phosphorus(V) Nitride with a Three-Dimensional Network Structure from PN_4 Tetrahedra and Tetragonal PN_5 Pyramids

K. Landskron, H. Huppertz, J. Senker, W. Schnick
Angew. Chem. **2001**, 113, 2713; *Angew. Chem. Int. Ed.* **2001**, 40, 2643

Characterisation of the Tetrahalophosphonium Cations $\text{PBr}_n\text{I}_{4-n}^+$ ($0 \leq n \leq 4$) by ^{31}P MAS NMR, IR and Raman Spectroscopy and the Crystal Structures of $\text{PI}_4^+\text{AlCl}_4^-$, $\text{PI}_4^+\text{AlBr}_4^-$ and $\text{PI}_4^+\text{GaI}_4^-$

C. Aubauer, M. Kaupp, T.M. Klapötke, H. Nöth, H. Piotrowski, W. Schnick, J. Senker, M. Suter
J. Chem. Soc., Dalton Trans. **2001**, 1880

Orthonitridoborate Ions $[\text{BN}_3]^{6-}$ in Oxonitridosilicate Cages: Synthesis, Crystal Structure, and Magnetic Properties of $\text{Ba}_4\text{Pr}_7[\text{Si}_{12}\text{N}_{23}\text{O}][\text{BN}_3]$, $\text{Ba}_4\text{Nd}_7[\text{Si}_{12}\text{N}_{23}\text{O}][\text{BN}_3]$, and $\text{Ba}_4\text{Sm}_7[\text{Si}_{12}\text{N}_{23}\text{O}][\text{BN}_3]$

M. Orth, R.-D. Hoffmann, R. Pöttgen, W. Schnick
Chem. Eur. J. **2001**, 7, 2791

A Theoretical and Experimental Study on the Lewis Acid-Base Adducts $(\text{P}_4\text{E}_3) \cdot (\text{BX}_3)$ ($\text{E} = \text{S}, \text{Se}$; $\text{X} = \text{Br}, \text{I}$) and $(\text{P}_4\text{E}_3) \cdot (\text{NbCl}_5)$

C. Aubauer, E. Irran, T.M. Klapötke, W. Schnick, A. Schulz, J. Senker
Inorg. Chem. **2001**, 40, 4956

Synthese, Kristallstrukturen und Eigenschaften der käfigartigen, sechsbasigen Säure $\text{P}_{12}\text{S}_{12}\text{N}_8(\text{NH})_6 \cdot 14\text{H}_2\text{O}$ sowie ihrer Salze $\text{Li}_6[\text{P}_{12}\text{S}_{12}\text{N}_{14}] \cdot 26\text{H}_2\text{O}$ und $(\text{NH}_4)_6[\text{P}_{12}\text{S}_{12}\text{N}_{14}] \cdot 10\text{H}_2\text{O}$ und $\text{K}_6[\text{P}_{12}\text{S}_{12}\text{N}_{14}] \cdot 8\text{H}_2\text{O}$

S. Roth, W. Schnick
Z. Anorg. Allg. Chem. **2001**, 627, 1165

Neue Vertreter des $\text{Er}_6[\text{Si}_{11}\text{N}_{20}]\text{O}$ -Strukturtyps – Hochtemperatur-Synthesen und Kristallstrukturen von $\text{Ln}_{(6+x/3)}[\text{Si}_{(11-y)}\text{Al}_y\text{N}_{(20+x-y)}]\text{O}_{(1-x+y)}$ mit $\text{Ln} = \text{Nd}, \text{Er}, \text{Yb}, \text{Dy}$ und $0 \leq x \leq 3$, $0 \leq y \leq 3$

K. Köllisch, H.A. Höpfe, H. Huppertz, M. Orth, W. Schnick
Z. Anorg. Allg. Chem. **2001**, 627, 1371

$\text{Rb}_3\text{P}_6\text{N}_{11}$ and $\text{Cs}_3\text{P}_6\text{N}_{11}$ – New Highly Condensed Nitridophosphates by High-Pressure High-Temperature Synthesis

K. Landskron, W. Schnick
J. Solid State Chem. **2001**, 156, 390

Synthesis, Vibrational Spectroscopy, and Crystal Structure Determination from X-ray Powder Diffraction Data of Alkaline Earth Dicyanamides $M[N(CN)_2]_2$ with $M = Mg, Ca, Sr,$ and Ba
B. Jürgens, E. Irran, W. Schnick
J. Solid State Chem. **2001**, 157,241

Nitridosilicates, Oxonitridosilicates (Sialons), and Oxonitridoaluminosilicates (Sialons) – New Materials with Promising Properties
W. Schnick
Int. J. Inorg. Mater. **2001**, 3, 1267

Synthese, Kristallstruktur und Eigenschaften von Tetranatrium-bis(trimetaphosphimato)cuprat(II)-Decahydrat, $Na_4\{Cu[(PO_2NH)_3]_2\} \cdot 10H_2O$
S. Correll, W. Schnick
Z. Anorg. Allg. Chem. **2000**, 626, 2347

A Comparison of the Enamino Carbonyl Conjugation Efficiency for Hydrogen Bonding Formation in Pyridone and Dihydropyridone Systems
T. Borowiak, I. Wolska, A. Korzanski, W. Milius, W. Schnick, W. Antkowiak
Z. Naturforsch. **2000**, 55b, 5

High-Temperature Synthesis and Single-Crystal X-ray Structure Determination of $Sr_{10}Sm_6Si_{30}Al_6O_7N_{54}$ – A Layered Sialon with an Ordered Distribution of Si, Al, O, and N
R. Lauterbach, W. Schnick
Solid State Sci. **2000**, 2, 463

1,2-Bis(trimethylsilyl)hydrazido Titanium Complexes
B. Goetze, J. Knizek, H. Nöth, W. Schnick
Eur. J. Inorg. Chem. **2000**, 1849

Luminescence in Eu^{2+} -doped $Ba_2Si_5N_8$: Fluorescence, Thermoluminescence, and Upconversion
H.A. Höpfe, H. Lutz, P. Morys, W. Schnick, A. Seilmeyer
J. Phys. Chem. Solids **2000**, 61, 2001

High-Temperature Synthesis, Single-Crystal X-ray and Neutron Powder Diffraction, and Materials Properties of $Sr_3Ln_{10}Si_{18}Al_{12}O_{18}N_{36}$ ($Ln = Ce, Pr, Nd$) - Novel Sialons with an Ordered Distribution of Si, Al, O, and N
R. Lauterbach, E. Irran, P.F. Henry, M.T. Weller, W. Schnick
J. Mater. Chem. **2000**, 10, 1357

$Ce_4[Si_4O_4N_6]O$ – A Hyperbolically Layered Oxonitridosilicate Oxide with an Ordered Distribution of Oxygen and Nitrogen
E. Irran, K. Köllisch, S. Leoni, R. Nesper, P.F. Henry, M.T. Weller, W. Schnick
Chem. Eur. J. **2000**, 6, 2714

Trimerization of NaC_2N_3 to $Na_3C_6N_9$ in the Solid: Ab Initio Crystal Structure Determination of Two Polymorphs of NaC_2N_3 and of $Na_3C_6N_9$ from X-ray Powder Diffractometry
B. Jürgens, E. Irran, J. Schneider, W. Schnick
Inorg. Chem. **2000**, 39, 665

Single-Crystalline Hexagonal Sr-Er- and Sr-Dy-Sialon Microtubes
R. Lauterbach, W. Schnick
J. Mater. Sci. **2000**, 35, 3793

$Nd_3Si_5AlON_{10}$ – Synthese, Kristallstruktur und Eigenschaften eines Sialons im $La_3Si_6N_{11}$ -Strukturtyp
R. Lauterbach, W. Schnick
Z. Anorg. Allg. Chem. **2000**, 626, 56

Molecular, Complex Ionic, and Solid State PON Compounds
R. Marchand, W. Schnick, N. Stock
Adv. Inorg. Chem. **2000**, 50, 193

The First Nitride Spinels – New Synthetic Approaches to Binary Group 14 Nitrides

W. Schnick

Angew. Chem. **1999**, *111*, 3511; *Angew. Chem. Int. Ed.* **1999**, *38*, 3309

Synthese und Kristallstruktur neuer 1,1,1,3,3,3-Hexaamino-1 λ^5 , 3 λ^5 -diphosphazanium-Salze

K. Landskron, W. Schnick

Z. Naturforsch. **1999**, *54b*, 1363

Neue Tetraaminophosphonium-Salze durch Anionenaustausch in flüssigem Ammoniak

K. Landskron, S. Horstmann, W. Schnick

Z. Naturforsch. **1999**, *54b*, 1019

Zur Kenntnis von Tripraseodym-hexanitridotriborat LiSi₂N₃:

Synthese und Verfeinerung der Kristallstruktur

M. Orth, W. Schnick

Z. Anorg. Allg. Chem. **1999**, *625*, 1426

β -SrNH und β -SrND - Synthese und Kristallstrukturbestimmung mittels Röntgen- und Neutronenbeugung an Pulvern

V. Schultz-Coulon, E. Irran, B. Putz, W. Schnick

Z. Anorg. Allg. Chem. **1999**, *625*, 1086

High-Temperature High-Pressure Synthesis of the Highly Condensed Nitridophosphates NaP₄N₇, KP₄N₇, RbP₄N₇, and CsP₄N₇ and Their Crystal-Structure Determinations by X-ray Powder Diffraction

K. Landskron, E. Irran, W. Schnick

Chem. Eur. J. **1999**, *5*, 2548

Synthese und Kristallstruktur der Übergangsmetalltrimetaphosphimate Zn₃[(PO₂NH)₃]₂ · 14H₂O und Co₃[(PO₂NH)₃]₂ · 14H₂O

N. Stock, E. Irran, W. Schnick

Z. Anorg. Allg. Chem. **1999**, *625*, 555

Zur Kenntnis von Tripraseodym-hexanitridotriborat Pr₃B₃N₆:

Neue Synthese und Verfeinerung der Kristallstruktur

M. Orth, W. Schnick

Z. Anorg. Allg. Chem. **1999**, *625*, 551

Sm₂Si₃O₃N₄ und Ln₂Si_{2,5}Al_{0,5}O_{3,5}N_{3,5} (Ln = Ce, Pr, Nd, Sm, Gd) - neuer synthetischer Zugang zu N-haltigen Melilith-Phasen und deren Einkristall-Röntgenstrukturanalyse

R. Lauterbach, W. Schnick

Z. Anorg. Allg. Chem. **1999**, *625*, 429

Ce₁₆Si₁₅O₆N₃₂ – An Oxonitridosilicate with Silicon Octahedrally Coordinated by Nitrogen

K. Köllisch, W. Schnick

Angew. Chem. **1999**, *111*, 368; *Angew. Chem. Int. Ed.* **1999**, *38*, 357

High Temperature Syntheses of Novel Nitrido- and Oxonitrido-Silicates and Sialons Using RF Furnaces

W. Schnick, H. Huppertz, R. Lauterbach

J. Mater. Chem. **1999**, *9*, 289

Synthese, Struktur und Eigenschaften von drei Tetranatrium-tetrametaphosphimat-Hydraten

N. Stock, H. Schmalz, W. Schnick

Z. Anorg. Allg. Chem. **1998**, *624*, 1777

Synthese, Kristallstruktur und Eigenschaften von Triguanidinium-tri- μ -imido-cyclotriphosphat-monohydrat und Tetraguanidinium-tetra- μ -imidocyclotetraphosphat-tetrahydrat, $[\text{C}(\text{NH}_2)_3]_3(\text{PO}_2\text{NH})_3 \cdot \text{H}_2\text{O}$ und $[\text{C}(\text{NH}_2)_3]_4(\text{PO}_2\text{NH})_4 \cdot 4\text{H}_2\text{O}$

N. Stock, B. Jürgens, W. Schnick
Z. Naturforsch. **1998**, 53b, 1115

Phosphorus Oxonitridosodalites: Synthesis Using a Molecular Precursor and Structural Investigation by X-ray and Neutron Powder Diffraction and ^{31}P MAS NMR Spectroscopy

N. Stock, E. Irran, W. Schnick
Chem. Eur. J. **1998**, 4, 1822

Synthese, Kristallstruktur und Eigenschaften eines neuen Sialons - $\text{SrSiAl}_2\text{O}_3\text{N}_2$

R. Lauterbach, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 1154

Synthese und Kristallstruktur von $[\text{H}_2\text{NMe}_2]^+[(\text{Me}_2\text{NH})_2\text{TiCl}_4]^-$

R. Bettenhausen, W. Milius, W. Schnick
Z. Naturforsch. **1998**, 53b, 239

The Synthesis and Structure of Trimetaphosphimato Complexes of Hafnium and Zirconium

N. Stock, W. Herrendorf, J. Beck, W. Schnick
Eur. J. Inorg. Chem. **1998**, 469

Synthese, Kristallstruktur und Eigenschaften von Phosphor(V)-nitridimid HP_4N_7

S. Horstmann, E. Irran, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 221

Phosphor(V)-nitrid $\alpha\text{-P}_3\text{N}_5$: Synthese ausgehend von Tetraaminophosphoniumiodid und Kristallstrukturaufklärung mittels Synchrotron-Pulver-Röntgenbeugung

S. Horstmann, E. Irran, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 620

Tetraammonium Tetrametaphosphimate Tetrahydrate

N. Stock, W. Schnick
Acta Crystallogr. **1998**, C54, 171

Synthese und Kristallstruktur von $\text{BaEu}(\text{Ba}_{0,5}\text{Eu}_{0,5})\text{YbSi}_6\text{N}_{11}$

H. Huppertz, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 371

Trimerisierung von Dicyanamid-Ionen C_2N_3^- im Festkörper - Synthesen, Kristallstrukturen und Eigenschaften von $\text{NaCs}_2(\text{C}_2\text{N}_3)_3$ und $\text{Na}_3\text{C}_6\text{N}_9 \cdot 3\text{H}_2\text{O}$

B. Jürgens, W. Milius, P. Morys, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 91

Synthese, Kristallstruktur und Festkörper-NMR-spektroskopische Untersuchungen von $\text{K}_5\text{H}(\text{CN}_2)_3$

M. Becker, M. Jansen, A. Lieb, W. Milius, W. Schnick
Z. Anorg. Allg. Chem. **1998**, 624, 113

$\text{Ba}_2\text{Nd}_7\text{Si}_{11}\text{N}_{23}$ – A Nitridosilicate with a Zeolite-Analogous Si-N Structure

H. Huppertz, W. Schnick
Angew. Chem. **1997**, 109, 2765; *Angew. Chem. Int. Ed. Engl.* **1997**, 36, 2651

$\text{Eu}_2\text{Si}_5\text{N}_8$ and $\text{EuYbSi}_4\text{N}_7$. The First Nitridosilicates with a Divalent Rare Earth Metal

H. Huppertz, W. Schnick
Acta Crystallogr. **1997**, C53, 1751

Synthese und Kristallstruktur von $[(\text{Cl}_3\text{Si})_2\text{N}]_2\text{TiCl}_2$ - ein perchloriertes N-Silyl-titanimid

B. Schwarze, W. Milius, W. Schnick
Z. Naturforsch. **1997**, 52b, 819

Phosphorus(V) Nitride Imide HP_4N_7 : Synthesis from a Molecular Precursor and Structure Determination with Synchrotron Powder Diffraction

S. Horstmann, E. Irran, W. Schnick
Angew. Chem. **1997**, 109, 2085; *Angew. Chem. Int. Ed. Engl.* **1997**, 36, 1992

Bis(trimethylsilyl)ammonium Salts Obtained by Reaction of Hexamethyldisilazane with TiCl_4 , ZrCl_4 , or SnCl_4

R. Bettenhausen, W. Milius, W. Schnick
Chem. Eur. J. **1997**, 3, 1337

Synthesis and Crystal Structure of Phosphorus(V) Nitride $\alpha\text{-P}_3\text{N}_5$

S. Horstmann, E. Irran, W. Schnick
Angew. Chem. **1997**, 109, 1938; *Angew. Chem. Int. Ed. Engl.* **1997**, 36, 1873

Synthese, Kristallstruktur und Eigenschaften von 1,1,3,3,3-Pentaamino-1-thio- $1\lambda^5,3\lambda^5$ -diphosphaz-2-en $(\text{NH}_2)_2\text{P}(\text{S})\text{N}=\text{P}(\text{NH}_2)_3$

S. Horstmann, W. Schnick
Z. Naturforsch. **1997**, 52b, 490

Nitridosilicates - A Significant Extension of Silicate Chemistry

W. Schnick, H. Huppertz
Chem. Eur. J. **1997**, 3, 679

Synthesen, Kristallstrukturen und Eigenschaften von Trisilber- und Trikalium-tri- μ -imido-cyclotriphosphat, $\text{Ag}_3(\text{PO}_2\text{NH})_3$ und $\text{K}_3(\text{PO}_2\text{NH})_3$

N. Stock, W. Schnick
Z. Naturforsch. **1997**, 52b, 251

Trisodium Trimetaphosphate Monohydrate

N. Stock, W. Schnick
Acta Crystallogr. **1997**, C53, 532

Fully Chlorinated N-Silyl-Amides of Titanium and Tungsten - Crystal Structure of $\text{Cl}_3\text{SiNW}(\text{Cl}_3)\text{N}(\text{SiCl}_3)_2$

B. Schwarze, W. Milius, W. Schnick
Chem. Ber. **1997**, 130, 701

Edge Sharing SiN_4 Tetrahedra in the Highly Condensed Nitridosilicate $\text{BaSi}_7\text{N}_{10}$

H. Huppertz, W. Schnick
Chem. Eur. J. **1997**, 3, 249

Nitrido-Sodalite $\text{Zn}_6[\text{P}_{12}\text{N}_{24}]$ as a Material for Reversible Hydrogen Encapsulation

J. Weitkamp, S. Ernst, F. Cubero, F. Wester, W. Schnick
Adv. Mater. **1997**, 9, 247

Synthese, Kristallstruktur und Eigenschaften der Nitridosilicate $\text{SrYbSi}_4\text{N}_7$ und $\text{BaYbSi}_4\text{N}_7$

H. Huppertz, W. Schnick
Z. Anorg. Allg. Chem. **1997**, 623, 212

Mg_2PN_3 und Ca_2PN_3 - Phosphor(V)-nitride mit eindimensional unendlichen Ketten eckenverknüpfter PN_4 -Tetraeder

V. Schultz-Coulon, W. Schnick
Z. Anorg. Allg. Chem. **1997**, 623, 69

Synthese, Kristallstruktur und Eigenschaften von 1,1,1,3,3,3-Hexaamino-1 λ^5 ,3 λ^5 -diphosphazenumchlorid[(NH₂)₃PNP(NH₂)₃]Cl

S. Horstmann, W. Schnick
Z. Naturforsch. **1996**, 51b, 1732

The First Crystalline Hexagonal Si₃N₄ Microtubes

H. Huppertz, N. Stock, W. Schnick
Adv. Mater. **1996**, 8, 844

BaYbSi₄N₇ – Unexpected Structural Possibilities in Nitridosilicates

H. Huppertz, W. Schnick
Angew. Chem. **1996**, 108, 2115; *Angew. Chem. Int. Ed. Engl.* **1996**, 35, 1983

Triammonium Trimetaphosphimate Monohydrate

N. Stock, W. Schnick
Acta Crystallogr. **1996**, C52, 2645

Synthese und Kristallstruktur von Cl₃Ti[N(SiMe₂Cl)(SiMe₂NH₂)]

R. Buheitel, W. Milius, W. Schnick
Z. Naturforsch. **1996**, 51b, 1141

Nitrido-Sodalithe. III: Synthese, Struktur und Eigenschaften von Zn₈[P₁₂N₂₄]X₂ mit X = O, S, Se, Te

F. Wester, W. Schnick
Z. Anorg. Allg. Chem. **1996**, 622, 1281

Synthese, Kristallstruktur und Eigenschaften von 1,1,3,3,3-Pentaamino-1-oxo-1 λ^5 , 3 λ^5 -diphosphaz-2-en, (NH₂)₂(O)P-N=P(NH₂)₃

N. Stock, W. Schnick
Z. Naturforsch. **1996**, 51b, 1079

Phosphorus Nitride P₃N₅: Synthesis, Spectroscopic, and Electron Microscopical Investigations

W. Schnick, J. Lücke, F. Krumeich
Chem. Mater. **1996**, 8, 281

The Novel Tetraaminophosphonium Ion - Structure, Chemical Bonding, and Reactions

W. Schnick, S. Horstmann, M. Häser
Phosphorus Sulfur Silicon Relat. Elem. **1996**, 109/110, 93

Ba₂Na(CN₂)(CN)₃, ein neues Cyanamid-cyanid mit interpenetrierenden Teilstrukturen

U. Berger, W. Schnick
Z. Naturforsch. **1996**, 51b, 1

Crystal Structure of Tripraseodymium Hexasiliconundecanitrider, Pr₃Si₆N₁₁

T. Schlieper, W. Schnick
Z. Kristallogr. **1996**, 211, 254

Synthese, Kristallstruktur und Eigenschaften von Tetraaminophosphonium-chlorid [P(NH₂)₄]Cl

S. Horstmann, W. Schnick
Z. Naturforsch. **1996**, 51b, 127

Darstellung, Kristallstruktur und Eigenschaften von Kaliumhydrogencyanamid

W. Schnick, H. Huppertz
Z. Anorg. Allg. Chem. **1995**, 621, 1703

Ba₂(CN₂)(CN)₂ und Sr₂(CN₂)(CN)₂- die ersten gemischten Cyanamid-cyanide

U. Berger, W. Milius, W. Schnick
Z. Anorg. Allg. Chem. **1995**, 621, 2075

Nitrido-silicate.III: Hochtemperatur-Synthese, Kristallstruktur und magnetische Eigenschaften von $Ce_3[Si_6N_{11}]$

T. Schlieper, W. Schnick
Z. Anorg. Allg. Chem. **1995**, 621, 1535

Nitrido-silicate.II: Hochtemperatur-Synthesen und Kristallstrukturen von $Sr_2Si_5N_8$ und $Ba_2Si_5N_8$

T. Schlieper, W. Milius, W. Schnick
Z. Anorg. Allg. Chem. **1995**, 621, 1380

From Molecules to Solids: Novel Nitrido Compounds

W. Schnick
Comments Inorg. Chem. **1995**, 17, 189

Nitrido-Silicate.I: Hochtemperatur-Synthese und Kristallstruktur von $Ca_2Si_5N_8$

T. Schlieper, W. Schnick
Z. Anorg. Allg. Chem. **1995**, 621, 1037

Nitrido-Sodalithe. II: Synthese, Struktur und Eigenschaften von $M_{(6+(y/2)-x)}H_{2x}[P_{12}N_{24}]Z_y$ mit $M = Fe, Co, Ni, Mn$; $Z = Cl, Br, I$; $0 \leq x \leq 4$; $y \leq 2$

W. Schnick, N. Stock, J. Lücke, M. Volkmann, M. Jansen
Z. Anorg. Allg. Chem. **1995**, 621, 987

$Ca_2Sr[WN_4]$, das erste gemischte Erdalkalimetall-nitridowolfram

U. Berger, V. Schultz-Coulon, W. Schnick
Z. Naturforsch. **1995**, 50b, 213

$CaMg_2N_2$ - ein gemischtes Erdalkalimetallnitrid mit *anti*- La_2O_3 -Struktur

V. Schultz-Coulon, W. Schnick
Z. Naturforsch. **1995**, 50b, 619

P-N-Compounds: From the Single Tetrahedral Cation to Framework Structures

S. Horstmann, W. Schnick, A. Schmidpeter
Main Group Chemistry News **1994**, 2, 8

Nitrido-Sodalithe.I: Synthese, Struktur und Eigenschaften von $Zn_{7-x}H_{2x}[P_{12}N_{24}]Cl_2$ mit $0 \leq x \leq 3$

W. Schnick, J. Lücke
Z. Anorg. Allg. Chem. **1994**, 620, 2014

Nitrido Zeolites - A Novel and Promising Class of Compounds

W. Schnick
in: Zeolites and Related Microporous Materials: State of the Art 1994
J. Weitkamp, H.G. Karge, H. Pfeifer, W. Hölderich (Eds.)
Stud. Surf. Sci. Catal. **1994**, 84, 2221

Synthese, Kristallstruktur und Eigenschaften von Tetraaminophosphoniumiodid $[P(NH_2)_4]I$

S. Horstmann, W. Schnick
Z. Naturforsch. **1994**, 49b, 1381

Synthesis and Crystal Structure of the First Tetraaminophosphonium Salt $P(NH_2)_4I$

W. Schnick, S. Horstmann, A. Schmidpeter
Angew. Chem. **1994**, 106, 818; *Angew. Chem. Int. Ed. Engl.* **1994**, 33, 785

Syntheses, Crystal Structures, and Vibrational Spectroscopic Properties of $MgCN_2$, $SrCN_2$, and $BaCN_2$

U. Berger, W. Schnick
J. Alloys Compounds **1994**, 206, 179

Carbon(IV) Nitride C_3N_4 – A New Material Harder than Diamond?

W. Schnick
Angew. Chem. **1993**, 105, 1649; *Angew. Chem. Int. Ed. Engl.* **1993**, 32, 1580

Ca₂PN₃ – A Novel Phosphorus(V) Nitride with One-Dimensional Infinite Chains of Corner-Sharing PN₄ Tetrahedra

W. Schnick, V. Schultz-Coulon
Angew. Chem. **1993**, 105,308; *Angew. Chem. Int. Ed. Engl.* **1993**, 32, 280

Solid State Chemistry with Nonmetal Nitrides

W. Schnick
Angew. Chem. **1993**, 105,846; *Angew. Chem. Int. Ed. Engl.* **1993**, 32, 806

Silicon Phosphorus Nitride, the First Ternary Compound in the Silicon-Phosphorus-Nitrogen System

H.-P. Baldus, W. Schnick, J. Lücke, U. Wannagat, G. Bogedain
Chem. Mater. **1993**, 5, 845

Microporous Inorganic Substances Having Tetrahedrons Structure and Their Manufacture

W. Schnick, J. Lücke
patent application, DE/21.01.1992/DE 4201484

Manufacture of Silicon Nitride Low in Acicular and High in α -Modidification

H.P. Baldus, W. Schnick
patent application, DE/15.01.1992/DE 4200787

Darstellung, Kristallstruktur und IR-spektroskopische Untersuchung von Phosphor(V)-nitrid-imid, HPN₂

W. Schnick, J. Lücke
Z. Anorg. Allg. Chem. **1992**, 610, 121

Zn₇[P₁₂N₂₄]Cl₂ - A Sodalite with a Phosphorus Nitrogen Framework

W. Schnick, J. Lücke
Angew. Chem. **1992**, 104, 208; *Angew. Chem. Int. Ed. Engl.* **1992**, 31, 213

Li₁₀P₄N₁₀ - A Lithium Phosphorus(V) Nitride with the Novel Complex Anion P₄N₁₀¹⁰⁻

W. Schnick, U. Berger
Angew. Chem. **1991**, 103, 857; *Angew. Chem. Int. Ed. Engl.* **1991**, 30, 830

Inclusion of Acetonitrile in a Macrobicyclic Host Molecule

F. Vögtle, R. Berscheid, W. Schnick
J. Chem. Soc., Chem. Commun. **1991**, 414

Lithium Ion Conductivity of LiPN₂ and Li₇PN₄

W. Schnick, J. Lücke
Solid State Ionics **1990**, 38, 271

**Zur Kenntnis von Lithium-phosphor(V)-nitrid.
Reindarstellung und Verfeinerung der Kristallstruktur von LiPN₂**

W. Schnick, J. Lücke
Z. Anorg. Allg. Chem. **1990**, 588, 19

**Synthesis and Crystal Structure of Lithium Phosphorus Nitride Li₇PN₄:
The First Compound Containing Isolated PN₄-Tetrahedra**

W. Schnick, J. Lücke
J. Solid State Chem. **1990**, 87, 101

Synthese, Struktur und thermisches Verhalten von Thiophosphorsäuretriamid (SP(NH₂)₃)

W. Schnick
Z. Naturforsch. **1989**, 44b, 942

Darstellung, Kristallstruktur und pyrolytischer Abbau von Thiophosphorsäuretriamid (SP(NH₂)₃)

W. Schnick
Z. Kristallogr. **1989**, 186,268

Recent Results in Solid State Chemistry of Ionic Ozonides, Hyperoxides, and Peroxides

W. Hesse, M. Jansen, W. Schnick
Prog. Solid State Chem. **1989**, 19, 47

Highly Alkylated Cyclohexanes - X-ray Crystal Structures, Force-Field Calculations and Conformations of cis/trans 1,4-Disubstituted Cyclohexane Isomers

W. Hasel, W. Schnick, M. Jansen, H.M.R. Hoffmann
Chem. Ber. **1988**, 121, 1469

Zum magnetischen Verhalten der Alkalimetallozonide KO_3 , RbO_3 und CsO_3

H. Lueken, M. Deussen, M. Jansen, W. Hesse, W. Schnick
Z. Anorg. Allg. Chem. **1987**, 553, 179

Preparation, Crystal Structure, and Thermal Behaviour of Potassium Ozonide

W. Schnick, M. Jansen
Rev. Chim. Minér. **1987**, 24, 446

Über Rubidiumozonid. Reindarstellung und Kristallstruktur

W. Schnick, M. Jansen
Z. Anorg. Allg. Chem. **1986**, 532, 37

Strukturbeziehungen bei Verbindungen des Formeltyps AX

($\text{A} = \text{K}, \text{Rb}, \text{Sr}, \text{Ba}$; $\text{X} = \text{O}_3^-, \text{NO}_2^-, \text{S}_3^{2-}$)

W. Schnick, M. Jansen
Z. Kristallogr. **1985**, 170, 167

Crystal Structures of Potassium Ozonide and Rubidium Ozonide

W. Schnick, M. Jansen
Angew. Chem. **1985**, 97, 48; *Angew. Chem. Int. Ed. Engl.* **1985**, 24, 54

A Novel Entry to the Taxane Structural Unit

H. Neh, S. Blechert, W. Schnick, M. Jansen
Angew. Chem. **1984**, 96, 903; *Angew. Chem. Int. Ed. Engl.* **1984**, 23, 905