

# Peter Josef Schmidt

## List of Publications by Year in descending order

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75  
papers

5,725  
citations

147566

31  
h-index

76769

74  
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95  
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95  
docs citations

95  
times ranked

3101  
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#	ARTICLE	IF	CITATIONS
1	Nitridic Analogs of Micas $AE_3P_4N_{10}(NH)_2$ (AE = Mg, Mg <sub>0.94</sub> Ca <sub>0.06</sub> , Ca, Sr). <i>Angewandte Chemie</i> , 2022, 134, e202114902.	1.6	4
2	Nitridic Analogs of Micas $AE_3Si_3P_4N_{10}(NH)_2$ (AE = Mg, Mg <sub>0.94</sub> Ca <sub>0.06</sub> , Ca, Sr). <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202114902.	7.2	11
3	Inverse-tunable Red Luminescence and Electronic Properties of Nitridoberyllaluminates $Sr_2Ba_3[BeAl_3N_5]Eu^{2+}$ ( $x=0$ ). <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	2
4	Synthesis and Luminescence Properties of Amber Emitting $La_7Sr[Si_{10}N_{19}O_3]Eu^{2+}$ and Syntheses of the Substitutional Variants $RE_8AE_x[Si_{10}N_{20}O_2]Eu^{2+}$ with $RE=La, Ce$ ; $AE=Ca, Sr, Ba$ ; $0 \leq x \leq 2$ . <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	3
5	Electronic and Optical Properties of $Eu^{2+}$ -Activated Narrow-Band Phosphors for Phosphor-Converted Light-Emitting Diode Applications: Insights from a Theoretical Spectroscopy Perspective. <i>Journal of the American Chemical Society</i> , 2022, 144, 8038-8053.	6.6	28
6	Energy levels of $Eu^{2+}$ states in the next-generation LED-phosphor $SrLi_2Al_2O_2N_2:Eu^{2+}$ . <i>Journal of Materials Chemistry C</i> , 2022, 10, 9740-9747.	2.7	13
7	Synthesis of Nitride Zeolites in a Hot Isostatic Press. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4470-4473.	7.2	6
8	Synthesis of Nitride Zeolites in a Hot Isostatic Press. <i>Angewandte Chemie</i> , 2021, 133, 4520-4523.	1.6	0
9	Missing Member in the $MIII_4Si_4N_7$ Compound Class: Carbothermal Reduction and Nitridation Synthesis Revealing Substitution of N by C and O in $CaLu[Si_4N_7]_2x(CxOx):Eu^{2+}/Ce^{3+}$ ( $x \leq 0.3$ ). <i>Chemistry - A European Journal</i> , 2021, , .	1.7	2
10	Illuminating Nitridoberyllaluminates: The Highly Efficient Red-Emitting Phosphor $Sr_2[BeAl_3N_5]Eu^{2+}$ . <i>Chemistry of Materials</i> , 2020, 32, 6611-6617.	3.2	21
11	HIP to be Square: Simplifying Nitridophosphate Synthesis in a Hot Isostatic Press. <i>Angewandte Chemie</i> , 2020, 132, 18397-18400.	1.6	8
12	HIP to be Square: Simplifying Nitridophosphate Synthesis in a Hot Isostatic Press. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18240-18243.	7.2	9
13	$BaP_6N_{10}NH:Eu^{2+}$ as a Case Study – An Imidonitridophosphate Showing Luminescence. <i>Chemistry - A European Journal</i> , 2020, 26, 5010-5016.	1.7	7
14	Ammonothermal Synthesis of $Ba_2PO_3N$ – An Oxonitridophosphate with Non-Condensed $PO_3N$ Tetrahedra. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 841-846.	1.0	10
15	Nitridophosphate-Based Ultra-Narrow-Band Blue Emitters: Luminescence Properties of $AE_8P_8N_{14}:Eu^{2+}$ (AE = Ca, Sr, Ba). <i>Chemistry - A European Journal</i> , 2020, 26, 7292-7298.	1.7	24
16	$Sr_3P_3N_7$ : Complementary Approach by Ammonothermal and High-Pressure Syntheses. <i>Chemistry - A European Journal</i> , 2020, 26, 6257-6263.	1.7	18
17	Ab initio exploration and prediction of AE-containing nitrido(litho/magneso)tetrelates (AE = Ca, Tj) $ETQq_1$ $10^{14}$ rgBT / Over $[Ge_2N_6]^{10-}$ units. <i>Dalton Transactions</i> , 2019, 48, 8671-8677.	1.6	2
18	$MBe_2ON_{14}:Eu^{2+}$ (M = Sr, Ba): Highly Condensed Nitridoberyllates with Exceptional Highly Energetic $Eu^{2+}$ Luminescence. <i>Chemistry of Materials</i> , 2019, 31, 3174-3182.	3.2	24

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19	RE <sub>2</sub> Ca <sub>1.5</sub> Si <sub>11</sub> N <sub>20</sub> O (RE = Yb, Tj) Offering Interesting Spectral Properties for Yellow-Emitting Phosphors in 1pcLEDs. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 4985-4993.	1.0	2
20	Luminescence of an Oxonitridoberyllate: A Study of Narrow-Band Cyan-Emitting Sr <sub>8</sub> Be <sub>4</sub> ON <sub>4</sub> :Eu <sup>2+</sup> . <i>Chemistry of Materials</i> , 2018, 30, 3122-3130.	3.2	77
21	Sr <sub>2</sub> BeSi <sub>2</sub> N <sub>4</sub> :Eu <sup>2+</sup> /Ce <sup>3+</sup> and Eu <sub>2</sub> BeSi <sub>2</sub> N <sub>4</sub> : Nontypical Luminescence in Highly Condensed Nitridoberyllsilicates. <i>Chemistry - A European Journal</i> , 2018, 24, 7243-7249.	1.7	20
22	Oxonitridosilicate Oxides RE <sub>26</sub> Ba <sub>6</sub> [Si <sub>22</sub> O <sub>19</sub> N <sub>36</sub> ]O <sub>16</sub> :Eu <sup>2+</sup> (RE = Y, Tb) with a Unique Layered Structure and Orange-Red Luminescence for RE = Y. <i>Inorganic Chemistry</i> , 2018, 57, 2242-2248.	1.9	9
23	Tunable Red Luminescence in Nitridomagnesoaluminates Sr <sub>2</sub> [MgAl <sub>5</sub> N <sub>7</sub> ]:Eu <sup>2+</sup> , Sr <sub>2</sub> [MgAl <sub>5</sub> N <sub>7</sub> ]:Eu <sup>2+</sup> , and Sr <sub>8</sub> [LiMg <sub>2</sub> Al <sub>21</sub> N <sub>28</sub> ]:Eu <sup>2+</sup> . <i>Chemistry of Materials</i> , 2018, 30, 3552-3558.	3.2	30
24	Narrow-Band Yellow-Orange Emitting La <sub>3</sub> Ca <sub>1.5</sub> Si <sub>6</sub> N <sub>11</sub> :Eu <sup>2+</sup> (x ≈ 0.77): A Promising Phosphor for Next-Generation Amber pcLEDs. <i>Chemistry of Materials</i> , 2018, 30, 3552-3558.	3.2	44
25	Orange-Emitting Li <sub>4</sub> Sr <sub>4</sub> [Si <sub>4</sub> O <sub>4</sub> N <sub>6</sub> ]O:Eu <sup>2+</sup> a Layered Lithium Oxonitridosilicate Oxide. <i>Inorganic Chemistry</i> , 2018, 57, 14304-14313.	1.9	4
26	Tailoring Emission Characteristics: Narrow-Band Red Luminescence from SLA to CaBa <sub>2</sub> Li <sub>2</sub> Al <sub>6</sub> N <sub>8</sub> :Eu <sup>2+</sup> . <i>Chemistry of Materials</i> , 2018, 30, 7885-7891.	3.2	26
27	RE <sub>4</sub> Ba <sub>2</sub> [Si <sub>12</sub> O <sub>2</sub> N <sub>16</sub> C <sub>3</sub> ]:Eu <sup>2+</sup> (RE = Lu, Y): Green-Yellow Emitting Oxonitridocarbidosilicates with a Highly Condensed Network Structure Unraveled through Synchrotron Microdiffraction. <i>Inorganic Chemistry</i> , 2018, 57, 13840-13846.	1.9	8
28	Ultra-Narrow-Band Blue-Emitting Oxoberyllates AELi <sub>2</sub> [Be <sub>4</sub> O <sub>6</sub> ]:Eu <sup>2+</sup> (AE=Sr,Ba) Paving the Way to Efficient RGB pcLEDs. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8739-8743.	7.2	87
29	Ultra-Narrow-Band Blue-Emitting Oxoberyllates AELi <sub>2</sub> [Be <sub>4</sub> O <sub>6</sub> ]:Eu <sup>2+</sup> (AE=Sr,Ba) Paving the Way to Efficient RGB pcLEDs. <i>Angewandte Chemie</i> , 2018, 130, 8875-8879.	1.6	22
30	Oxoberyllates SrBe <sub>2</sub> and Sr <sub>12</sub> Be <sub>17</sub> O <sub>29</sub> as Novel Host Materials for Eu <sup>2+</sup> Luminescence. <i>Chemistry - A European Journal</i> , 2018, 24, 12678-12685.	1.7	11
31	Unprecedented Deep-Red Ce <sup>3+</sup> Luminescence of the Nitridolithosilicates Li <sub>38.7</sub> RE <sub>3.3</sub> Ca <sub>5.7</sub> [Li <sub>2</sub> Si <sub>30</sub> N <sub>59</sub> ]O <sub>26</sub> (RE = La, Ce, Y). <i>Chemistry of Materials</i> , 2018, 30, 5500-5506.	1.0	2
32	Luminescence of the Narrow-Band Red Emitting Nitridomagnesosilicate Li <sub>2</sub> (Ca <sub>1</sub> Sr <sub>x</sub> ) <sub>2</sub> [Mg <sub>2</sub> Si <sub>2</sub> N <sub>6</sub> ]O <sub>26</sub> (x = 0-0.06). <i>Chemistry of Materials</i> , 2017, 29, 1377-1383.	1.5	15
33	Designing Luminescent Materials and Band Gaps: A Soft X-ray Spectroscopy and Density Functional Theory Study of Li <sub>2</sub> Ca <sub>2</sub> [Mg <sub>2</sub> Si <sub>2</sub> N <sub>6</sub> ]:Eu <sup>2+</sup> and Ba <sub>2</sub> (Li <sub>2</sub> Al <sub>2</sub> Si <sub>2</sub> N <sub>6</sub> ):Eu <sup>2+</sup> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 14286-14301.	1.5	15
34	Progress in high-luminance LED technology for solid-state lighting. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600826.	0.8	32
35	Direct Measurements of Energy Levels and Correlation with Thermal Quenching Behavior in Nitride Phosphors. <i>Chemistry of Materials</i> , 2017, 29, 7976-7983.	3.2	27
36	Efficient Yellow-Orange Phosphor Lu <sub>4</sub> Ba <sub>2</sub> [Si <sub>9</sub> ON <sub>16</sub> ]O:Eu <sup>2+</sup> and Orange-Red Emitting Y <sub>4</sub> Ba <sub>2</sub> [Si <sub>9</sub> ON <sub>16</sub> ]O:Eu <sup>2+</sup> : Two Oxonitridosilicate Oxides with Outstanding Structural Variety. <i>Chemistry of Materials</i> , 2017, 29, 8377-8384.	3.2	34

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37	Excitation dependent quenching of luminescence in LED phosphors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 310-314.	1.2	25
38	Electronic Structure, Bandgap, and Thermal Quenching of $\text{Sr}[\text{Mg}_{3}\text{SiN}_{4}]:\text{Eu}^{2+}$ in Comparison to $\text{Sr}[\text{LiAl}_{3}\text{N}_{4}]:\text{Eu}^{2+}$ . <i>Advanced Optical Materials</i> , 2016, 4, 584-591.	3.6	41
39	$\text{Ca}_{18.75}\text{Li}_{10.5}[\text{Al}_{39}\text{N}_{55}]:\text{Eu}^{2+}$ "Supertetrahedron Phosphor for Solid-State Lighting. <i>Chemistry of Materials</i> , 2016, 28, 1220-1226.	3.2	47
40	Nitridomagnesosilicate $\text{Ba}[\text{Mg}_{3}\text{SiN}_{4}]:\text{Eu}^{2+}$ and Structure "Property Relations of Similar Narrow-Band Red Nitride Phosphors. <i>Chemistry of Materials</i> , 2015, 27, 1780-1785.	3.2	88
41	$\text{La}_{3}\text{BaSi}_{5}\text{N}_{9}\text{O}_{2}:\text{Ce}^{3+}$ " A Yellow Phosphor with an Unprecedented Tetrahedra Network Structure Investigated by Combination of Electron Microscopy and Synchrotron X-ray Diffraction. <i>Chemistry of Materials</i> , 2015, 27, 4832-4838.	3.2	56
42	A revolution in lighting. <i>Nature Materials</i> , 2015, 14, 454-458.	13.3	925
43	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 $\text{BaSr}_{2}\text{P}_{6}\text{N}_{12}:\text{Eu}^{2+}$ . <i>Chemistry - A European Journal</i> , 2015, 21, 6443-6448.	1.7	46
44	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 <i>whj</i> for LED/LCD-Backlighting Applications. <i>Chemistry of Materials</i> , 2015, 27, 6109-6115.	3.2	113
45	Nontypical Luminescence Properties and Structural Relation of $\text{Ba}_{3}\text{P}_{5}\text{N}_{10}\text{X}:\text{Eu}^{2+}$ (X = Cl, I): Nitridophosphate Halides with Zeolite-like Structure. <i>Chemistry of Materials</i> , 2015, 27, 6432-6441.	3.2	29
46	Toward New Phosphors for Application in Illumination-Grade White pc-LEDs: The Nitridomagnesosilicates $\text{Ca}[\text{Mg}_{3}\text{SiN}_{4}]:\text{Ce}^{3+}$ , $\text{Sr}[\text{Mg}_{3}\text{SiN}_{4}]:\text{Eu}^{2+}$ , and $\text{Eu}[\text{Mg}_{3}\text{SiN}_{4}]$ . <i>Chemistry of Materials</i> , 2014, 26, 2712-2719.	3.2	234
47	$\text{Ca}[\text{LiAl}_{3}\text{N}_{4}]:\text{Eu}^{2+}$ " A Narrow-Band Red-Emitting Nitridolithoaluminate. <i>Chemistry of Materials</i> , 2014, 26, 3544-3549.	3.2	201
48	Group (III) Nitrides $\text{M}[\text{Mg}_{2}\text{Al}_{2}\text{N}_{4}]$ (M = Ca, Sr, Ba, Eu) and $\text{Ba}[\text{Mg}_{2}\text{Ga}_{2}\text{N}_{4}]$ " Structural Relation and Nontypical Luminescence Properties of $\text{Eu}^{2+}$ Doped Samples. <i>Chemistry of Materials</i> , 2014, 26, 6113-6119.	3.2	133
49	Wei " Licht aus Nitriden. <i>Nachrichten Aus Der Chemie</i> , 2014, 62, 847-851.	0.0	20
50	Narrow-band red-emitting $\text{Sr}[\text{LiAl}_{3}\text{N}_{4}]:\text{Eu}^{2+}$ as a next-generation LED-phosphor material. <i>Nature Materials</i> , 2014, 13, 891-896.	13.3	1,217
51	New Polymorph of the Highly Efficient LED-Phosphor $\text{SrSi}_{2}\text{O}_{2}\text{N}_{2}:\text{Eu}^{2+}$ " Polytypism of a Layered Oxonitridosilicate. <i>Chemistry of Materials</i> , 2013, 25, 1852-1857.	3.2	62
52	Unexpected Luminescence Properties of $\text{Sr}_{0.25}\text{Ba}_{0.75}\text{Si}_{2}\text{O}_{2}\text{N}_{2}:\text{Eu}^{2+}$ " A Narrow Blue Emitting Oxonitridosilicate with Cation Ordering. <i>Chemistry - A European Journal</i> , 2012, 18, 13446-13452.	1.7	48
53	$\text{Ba}_{3}\text{Ga}_{3}\text{N}_{5}$ " A Novel Host Lattice for $\text{Eu}^{2+}$ -Doped Luminescent Materials with Unexpected Nitridogallate Substructure. <i>Chemistry of Materials</i> , 2012, 24, 402-407.	3.2	50
54	Rare " Earth Melonates $\text{LnC}_{6}\text{N}_{7}(\text{NCN})_{3}\text{H}_{2}\text{O}$ (Ln) Tj ETQq0 0 0 rgBT /Over Photoluminescence Properties of Heptazine Salts with Trivalent Cations. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 1832-1839.	1.0	10

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55	Real structure and diffuse scattering of Sr <sub>0.5</sub> Ba <sub>0.5</sub> Si <sub>2</sub> O <sub>2</sub> N <sub>2</sub> :Eu <sup>2+</sup> - A highly efficient yellow phosphor for pc-LEDs. <i>Solid State Sciences</i> , 2011, 13, 1769-1778.	1.5	34
56	Fully phosphor-converted LEDs with Lumiramic phosphor technology. <i>Proceedings of SPIE</i> , 2010, , .	0.8	10
57	Sr <sub>5</sub> Al <sub>5</sub> Si <sub>21</sub> N <sub>35</sub> O <sub>2</sub> :Eu <sup>2+</sup> (x=0) - A Novel Green Phosphor for White-Light pcLEDs with Disordered Intergrowth Structure. <i>Chemistry - A European Journal</i> , 2009, 15, 5311-5319.	1.7	73
58	(Sr <sub>1-x</sub> Ca <sub>x</sub> ) <sub>2</sub> (1+16y)/2(Si <sub>1-x</sub> Al <sub>x</sub> ) <sub>2</sub> (x=0.24, y=0.18, z=0.19) - A Novel Sialon with a Highly Condensed Silicate Framework. <i>European Journal of Inorganic Chemistry</i> , 2009, 2009, 3326-3332.	1.0	6
59	All-nitride monochromatic amber-emitting phosphor-converted light-emitting diodes. <i>Physica Status Solidi - Rapid Research Letters</i> , 2009, 3, 215-217.	1.2	74
60	Ba <sub>2</sub> AlSi <sub>5</sub> N <sub>9</sub> - A New Host Lattice for Eu <sup>2+</sup> -Doped Luminescent Materials Comprising a Nitridoalumosilicate Framework with Corner- and Edge-Sharing Tetrahedra. <i>Chemistry of Materials</i> , 2009, 21, 1288-1295.	3.2	68
61	One-Pot Synthesis of Single-Source Precursors for Nanocrystalline LED Phosphors M <sub>2</sub> Si <sub>5</sub> N <sub>8</sub> :Eu <sup>2+</sup> (M = Sr, Ba). <i>Chemistry of Materials</i> , 2009, 21, 2467-2473.	3.2	142
62	SrAlSi <sub>4</sub> N <sub>7</sub> :Eu <sup>2+</sup> - A Nitridoalumosilicate Phosphor for Warm White Light (pc)LEDs with Edge-Sharing Tetrahedra. <i>Chemistry of Materials</i> , 2009, 21, 1595-1601.	3.2	214
63	HP-Ca <sub>2</sub> Si <sub>5</sub> N <sub>8</sub> - A new High-Pressure Nitridosilicate: Synthesis, Structure and Luminescence. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2008, 634, 2032-2032.	0.6	0
64	SrAlSi <sub>4</sub> N <sub>7</sub> :Eu <sup>2+</sup> - A Nitridoalumosilicate Phosphor for Warm White-Light LEDs with Edge-Sharing Tetrahedrons. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2008, 634, 2044-2044.	0.6	7
65	(Ca, Sr) <sub>5.5+(x-y)/2</sub> Si <sub>16-x</sub> Al <sub>x</sub> N <sub>25-y</sub> O <sub>y</sub> - A Novel Framework Sialon. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2008, 634, 2051-2051.	0.6	0
66	HP-Ca <sub>2</sub> Si <sub>5</sub> N <sub>8</sub> - A New High-Pressure Nitridosilicate: Synthesis, Structure, Luminescence, and DFT Calculations. <i>Chemistry - A European Journal</i> , 2008, 14, 7892-7902.	1.7	35
67	Lumiramic: a new phosphor technology for high performance solid state light sources. <i>Proceedings of SPIE</i> , 2008, , .	0.8	33
68	Layered oxonitrido silicate (SiON) phosphors for high power LEDs. <i>Proceedings of SPIE</i> , 2008, , .	0.8	2
69	Materials design and properties of nitride phosphors for LEDs. <i>Proceedings of SPIE</i> , 2007, 6669, 136.	0.8	10
70	Rare-Earth Tricyanomelaminates [NH <sub>4</sub> Ln[HC <sub>6</sub> N <sub>9</sub> ] <sub>2</sub> [H <sub>2</sub> O] <sub>7</sub> ·...H <sub>2</sub> O (Ln=La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy): Structural Investigation, Solid-State NMR Spectroscopy, and Photoluminescence. <i>Chemistry - A European Journal</i> , 2007, 13, 3512-3524.	1.7	25
71	Luminescence properties of SrSi <sub>2</sub> O <sub>2</sub> N <sub>2</sub> doped with divalent rare earth ions. <i>Journal of Luminescence</i> , 2006, 121, 441-449.	1.5	213
72	Synthesis and Characterization of Tb[N(CN) <sub>2</sub> ] <sub>3</sub> ·2H <sub>2</sub> O and Eu[N(CN) <sub>2</sub> ] <sub>3</sub> ·2H <sub>2</sub> O: Two New Luminescent Rare-Earth Dicyanamides. <i>Chemistry of Materials</i> , 2006, 18, 5738-5745.	3.2	41

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73	Crystal Structure, Physical Properties and HRTEM Investigation of the New Oxonitridosilicate $\text{EuSi}_2\text{O}_2\text{N}_2$ . Chemistry - A European Journal, 2006, 12, 6984-6990.	1.7	68
74	Highly efficient all-nitride phosphor-converted white light emitting diode. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1727-1732.	0.8	564
75	Nitridosilicates: a new family of phosphors for color conversion of LEDs. , 2005, 5941, 169.		3