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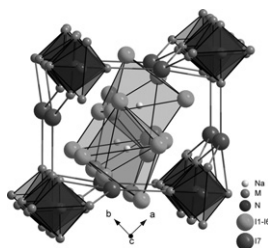
### Regular Articles

#### The first quaternary lanthanide(III) nitride iodides:

$\text{NaM}_4\text{N}_2\text{I}_7$  ( $M = \text{La-Nd}$ )

Christian M. Schurz and Thomas Schleid

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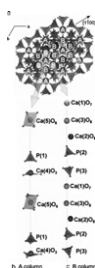


View at the main structural features of the  $\text{NaM}_4\text{N}_2\text{I}_7$  series ( $M = \text{La-Nd}$ ): The  $^1\{[\text{NM}_{4/2}]^{3+}\}$  chains, consisting of *trans*-edge connected  $[\text{NM}_4]^{9+}$  tetrahedra, and the special kind of iodide anions, namely  $(\text{I}7)^-$ , form cages, in which isolated  $[\text{NaI}_6]^{5-}$  octahedra are embedded.

#### Predicted energies and structures of $\beta\text{-Ca}_3(\text{PO}_4)_2$

E.E. Jay, E.M. Michie, D. Parfitt, M.J.D. Rushton, S.K. Fong, P.M. Mallinson, B.L. Metcalfe and R.W. Grimes

Page 2261



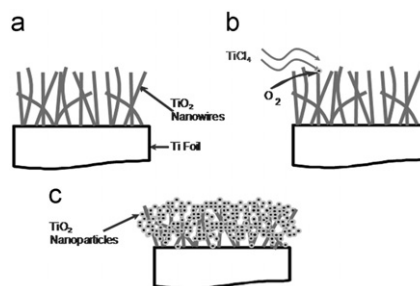
One of the  $6a$  cation sites of the  $\beta\text{-Ca}_3(\text{PO}_4)_2$  structure has previously been described as half occupied. Here, classical static lattice techniques are used to model the different configurations that the Ca ions can exhibit over these  $\text{Ca}(4) 6a$  sites. All possible configurations in the single primitive unit cell and a hexagonal supercell ( $3_1 \times 1 \times 1$ ) have been generated, along with configurationally averaged structures, that exhibits experimentally reported  $R 3c$  symmetry. The lowest energy configuration of the primitive cell exhibits  $R 3$  symmetry. Conversely, the lowest energy configurations derived from the hexagonal supercell cell, which are considerably more stable, exhibit  $P 3_1$  and  $P 3_2$  symmetries, which are isomorphic supergroups of  $R 3c$ . The implication of these simulations are discussed in terms of refined structural models of the material.

### Regular Articles—Continued

#### Thermal annealing synthesis of titanium-dioxide nanowire–nanoparticle hetero-structures

Choongho Yu and Jongbok Park

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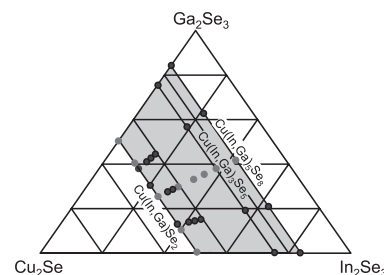


Schematic of proposed reaction mechanisms for synthesizing the hetero-structures: (a)  $\text{TiO}_2$  nanowires were grown as base structures for capturing  $\text{TiCl}_4$  gas. (b)  $\text{TiCl}_4$  gas was oxidized, precipitating crystalline  $\text{TiO}_2$  nanoparticles. (c) Repeated particle-incorporation process created tree-like hetero-structures.

#### Structural investigation of the $\text{Cu}_2\text{Se-In}_2\text{Se}_3\text{-Ga}_2\text{Se}_3$ phase diagram, X-ray photoemission and optical properties of the $\text{Cu}_{1-z}(\text{In}_{0.5}\text{Ga}_{0.5})_{1+z/3}\text{Se}_2$ compounds

M. Souilah, A. Lafond, C. Guillot-Deudon, S. Harel and M. Evain

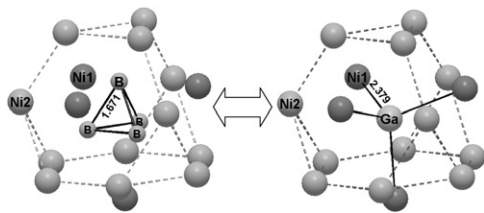
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Pseudo-ternary diagram in the  $\text{Cu}_2\text{Se-In}_2\text{Se}_3\text{-Ga}_2\text{Se}_3$  system showing the composition of all the synthesized compounds. The crystal structure of the compounds corresponding to red circles are presented in this study.

**Single crystal studies on boron-rich  $\tau$ -borides  $Ni_{23-x}M_xB_6$  ( $M = Zn, Ga, In, Sn, Ir$ )—The surprising occurrence of  $B_4$ -tetrahedra as a normal case?**

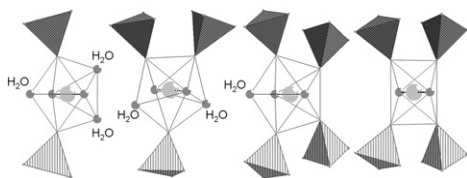
Dominik Kotzott, Martin Ade and Harald Hillebrecht  
Page 2281



Crystal structure of  $\tau$ -Borides  $M_{23}B_6$ ;  $M1$ :  $M_8$ -cubes,  $M2$ :  $M_{12}$ -cuboctahedra centred by  $M3$ , isolated  $M$ -atoms:  $M4$ ; grey circles: boron, black circles: metal atoms.

**New three-dimensional inorganic frameworks based on the uranophane-type sheet in monoamine templated uranyl-vanadates**

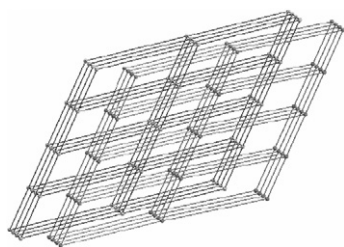
Laurent Jouffret, Zhenmian Shao, Murielle Rivenet and Francis Abraham  
Page 2290



The various type of PBP pillars P2, P3, P4, and P4' in the three-dimensional inorganic frameworks based on the uranophane-type sheet in monoamine templated uranyl-vanadates.

**Two 3D network complexes of Y(III) and Ce(III) with 2-fold interpenetration and reversible desorption-adsorption behavior of lattice water**

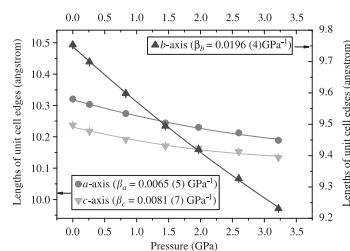
Wenjuan Chu, Yong He, Qinghuan Zhao, Yaoting Fan and Hongwei Hou  
Page 2298



Two inorganic-organic 3D network, namely  $\{[Ln(L)_{1.5}(H_2O)_2] \cdot 5H_2O\}_n$  [ $Ln = Y$  (1),  $Ce$  (2)], have been prepared under hydrothermal condition and structurally characterized by single-crystal X-ray diffractions. Both **1** and **2** exhibit 3D network structures with 2-fold interpenetration. Interestingly, the reversible desorption-adsorption behavior of lattice water is significantly observed in the two compounds. The result shows their potential application as late-model water absorbent in the field of adsorption material.

**Anisotropic compression of a synthetic potassium aluminogermanate zeolite with gismondine topology**

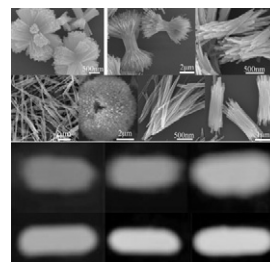
Young-Nam Jang, Chi-Chang Kao, Thomas Vogt and Yongjae Lee  
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High pressure study of a synthetic gismondine zeolite reveals channel-dependent anisotropic compression, i.e., the  $b$ -axis, normal to the 8-ring channels, is three times more compressible than the  $a$ - and  $c$ -axes.

**Nano/micro-scaled  $La(1,3,5-BTC)(H_2O)_6$  coordination polymer: Facile morphology-controlled fabrication and color-tunable photoluminescence properties by co-doping  $Eu^{3+}, Tb^{3+}$**

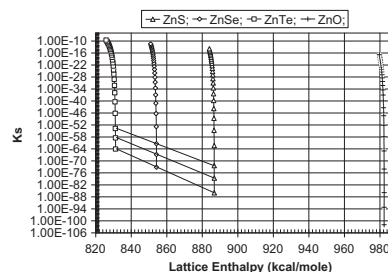
Kai Liu, Yuhua Zheng, Guang Jia, Mei Yang, Yanhua Song, Ning Guo and Hongpeng You  
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$La(1,3,5-BTC)(H_2O)_6$  with 3D flowerlike, wheatearlike, spherical, sheaflike, taillike, bundlelike architectures, and 1D nanorods were selectively prepared; color-tunable photoluminescence from red to green was also realized by co-doping  $Eu^{3+}$  and  $Tb^{3+}$ .

**Novel correlation of Schottky constants with lattice energies for II–VI and I–VII compounds**

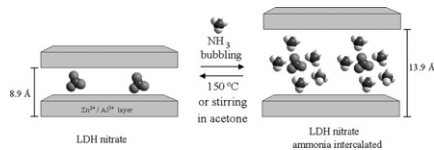
Heribert Wiedemeier  
Page 2317



For the Zn-chalcogenides, the quantities  $n$  and  $I_e$  are 2.007 and 650.3 kcal (2722 kJ), respectively. For the other groups of compounds, they are approximately equal to the formal valences and ionization energies of the metals:  $\text{Log } K_S \approx -(2.303nRT)^{-1} (0.99\Delta H_{T,L}^\circ - I_e)$ .

## Reversible intercalation of ammonia molecules into a layered double hydroxide structure without exchanging nitrate counter-ions

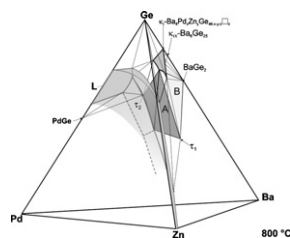
Gregorio Guadalupe Carbajal Arizaga, Fernando Wypych, Felipe Castellón Barraza and Oscar Edel Contreras Lopez  
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LDH-nitrate precipitated with ammonia expands the interlayer space if ammonia is bubbled up to pH 10. The basal distance decreased when the compound was heated at 150 °C or stirred in acetone. Nitrate ions are not exchanged.

## Crystal structure and physical properties of quaternary clathrates $Ba_8Zn_xGe_{46-x-y}Si_y$ , $Ba_8(Zn,Cu)_xGe_{46-x}$ and $Ba_8(Zn,Pd)_xGe_{46-x}$

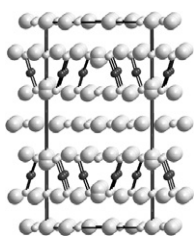
Navida Nasir, Andriy Grytsiv, Nataliya Melnychenko-Koblyuk, Peter Rogl, Ingeborg Bednar and Ernst Bauer  
Page 2329



Quaternary phase diagram of Ba–Pd–Zn–Ge system at 800 °C.

## New ternary rare-earth metal boride carbides $R_{15}B_4C_{14}$ ( $R = Y, Gd-Lu$ ) containing $BC_2$ units: Crystal and electronic structures, magnetic properties

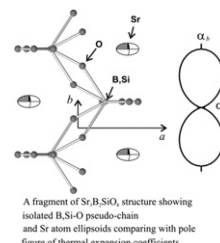
Volodymyr Babizhetskyy, Arndt Simon, Hansjürgen Mattausch, Kurt Hiebl and Chong Zheng  
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The ternary rare earth boride carbides  $R_{15}B_4C_{14}$  ( $R = Y, Gd-Lu$ ) were prepared from the elements by arc-melting followed by annealing in silica tubes at 1270 K for 1 month.  $Tb_{15}B_4C_{14}$  is a new member of the rare-earth metal boride carbide series in which the finite quasi-molecular CBC entities as well as isolated C atoms are embedded in the voids of the metal atom matrix. The structure of  $Tb_{15}B_4C_{14}$  contains two types of slabs: one slab contains finite bent CBC units and isolated carbon atoms whereas another is formed only from octahedral coordinated single carbon atoms. The electronic structure for the idealized composition corresponds to an electron partitioning according to  $(Tb^{3+})_{15}(C^{4-})_6(CBC^{5-})_4 \cdot e^-$  giving rise to a single electron per formula for Tb–Tb framework bonding. The magnetism of the ternary rare earth boride carbides  $R_{15}B_4C_{14}$  ( $R = Tb, Dy, Er$ ) is characterized by the onset of ferromagnetic order below  $T < 150$  K.

## Synthesis, crystal structure and thermal behavior of $Sr_3B_2SiO_8$ borosilicate

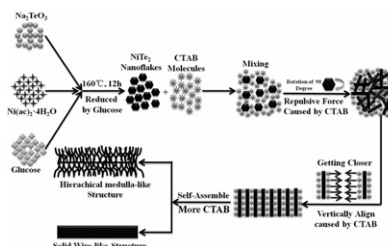
M.G. Krzhizhanovskaya, R.S. Bubnova, S.V. Krivovichev, O.L. Belousova and S.K. Filatov  
Page 2352



A fragment of  $Sr_3B_2SiO_8$  structure showing isolated B-Si-O pseudo-chain and Sr atom ellipsoids, comparing with pole figure of thermal expansion coefficients.

## Cetyltrimethylammonium bromide assisted self-assembly of $NiTe_2$ nanoflakes: Nanoflake arrays and their photoluminescence properties

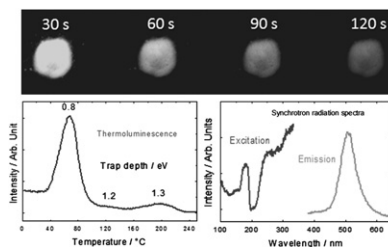
Ling Jiang, Ying-Jie Zhu and Jing-Biao Cui  
Page 2358



$NiTe_2$  nanoflakes and their self-assembled nanoflake arrays have been prepared by a single-step hydrothermal method using  $Ni(CH_3COO)_2 \cdot 4H_2O$ ,  $Na_2TeO_3$ , glucose, and cetyltrimethylammonium bromide (CTAB).

## Thermoluminescence and synchrotron radiation studies on the persistent luminescence of $BaAl_2O_4:Eu^{2+}, Dy^{3+}$

L.C.V. Rodrigues, R. Stefani, H.F. Brito, M.C.F.C. Felinto, J. Hölsä, M. Lastusaari, T. Laamanen and M. Malkamäki  
Page 2365



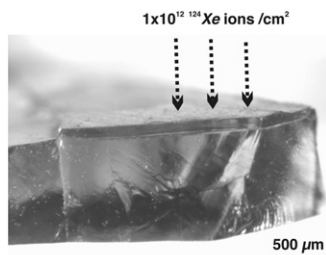
$BaAl_2O_4:Eu^{2+}, Dy^{3+}$  phosphors: Thermoluminescence glow curve and synchrotron radiation spectra. Persistent luminescence photographs obtained after ceased UV irradiation.

Continued

### Structure alterations in microporous $(\text{Mg,Fe})_2\text{Al}_4\text{Si}_5\text{O}_{18}$ crystals induced by energetic heavy-ion irradiation

Ronald Miletich, G. Diego Gatta, Günther J. Redhammer, Michael Burchard, Hans-Peter Meyer, Christian Weikusat, Nicola Rotiroti, Ulrich A. Glasmacher, Christina Trautmann and Reinhard Neumann

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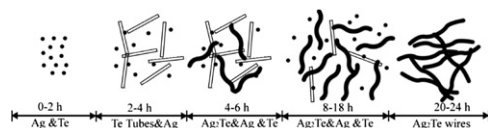


Cordierite single-crystal specimen showing the color change from pale blue (unirradiated) to a yellowish brown layer (irradiated) after exposure to relativistic  $^{124}\text{Xe}$  ions at a fluence of  $1 \times 10^{12}$  ions per  $\text{cm}^2$ .

### Simple synthesis of ultra-long $\text{Ag}_2\text{Te}$ nanowires through solvothermal co-reduction method

Feng Xiao, Gang Chen, Qun Wang, Lin Wang, Jian Pei and Nan Zhou

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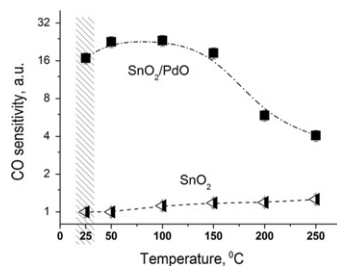


Ultra-long single crystal  $\beta\text{-Ag}_2\text{Te}$  nanowires with the diameter of about 300 nm were fabricated by the solvothermal route in ethylene glycol (EG) system without any template. The diagram displays the variation of the phases and morphologies of products with different reaction time.

### Role of surface hydroxyl groups in promoting room temperature CO sensing by Pd-modified nanocrystalline $\text{SnO}_2$

Artem V. Marikutsa, Marina N. Rumyantseva, Lada V. Yashina and Alexander M. Gaskov

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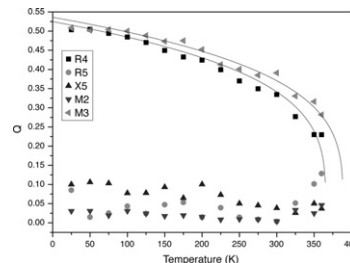


Nanocrystalline  $\text{SnO}_2$  modified by PdO/Pd clusters exhibit high CO sensitivity at room temperature. An extensive study revealed surface OH-groups participation in CO oxidation on  $\text{SnO}_2$  leading to enhanced sensitivity at low operating temperature (25–150 °C). PdO/Pd clusters supposedly initiate a chain of CO reactions with surface hydroxyls.

### A primitive tetragonal intermediate in the orthorhombic–cubic phase transition of perovskite-type strontium niobate $\text{Sr}_{0.92}\text{NbO}_3$

René B. Macquart, Brendan J. Kennedy and Maxim Avdeev

Page 2400

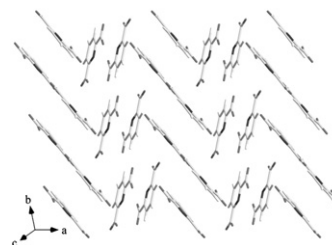


Variable temperature powder neutron diffraction measurements reveal that  $\text{Sr}_{0.92}\text{NbO}_3$  undergoes a sequence of phase transitions  $Pnma \rightarrow P4/mbm \rightarrow Pm3m$  with unanticipated softening of the  $M$  point rather than  $R$  point resulting in the formation of the primitive tetragonal intermediate.

### $\text{In}[\text{NC}_5\text{H}_3(\text{CO}_2)_2](\text{OH}_2)\text{F}$ : A new layered indium-organic framework material ( $\text{NC}_5\text{H}_3(\text{CO}_2)_2 = 2,6\text{-pyridinedicarboxylate}$ )

Min Kyung Kim, Dong Woo Lee and Kang Min Ok

Page 2406

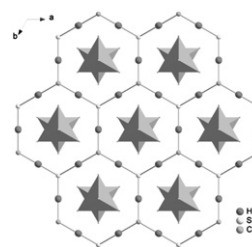


Wire representation exhibiting 2,6-pyridinedicarboxylate groups that are packed parallel.

### Solid-state syntheses, crystal structures and properties of two novel metal sulfur chlorides— $\text{Zn}_6\text{S}_5\text{Cl}_2$ and $\text{Hg}_3\text{ZnS}_2\text{Cl}_4$

Wen-Tong Chen, Han-Mao Kuang and Hua-Long Chen

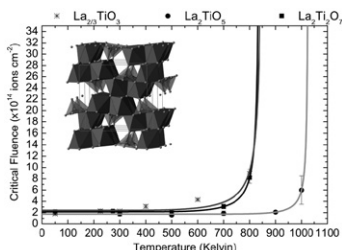
Page 2411



Two novel compounds were synthesized via solid-state reactions. One is the first example of ternary zinc–Q–X chalcogenides and the other is the first example of quaternary IIB–Q–X metal chalcogenides.

## Ion-beam irradiation of lanthanum compounds in the systems $\text{La}_2\text{O}_3\text{-Al}_2\text{O}_3$ and $\text{La}_2\text{O}_3\text{-TiO}_2$

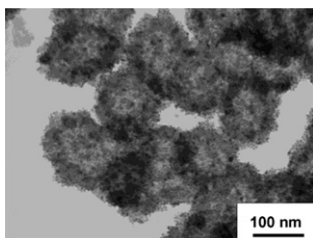
Karl R. Whittle, Gregory R. Lumpkin,  
Mark G. Blackford, Robert D. Aughterson,  
Katherine L. Smith and Nestor J. Zaluzec  
Page 2416



$\text{La}_2\text{TiO}_5$  with atypical co-ordination for Ti,  $\text{TiO}_5$  is found to be different in radiation resistance to  $\text{La}_2\text{Ti}_2\text{O}_7$  and  $\text{La}_{2/3}\text{TiO}_3$ . Irradiation of La-Ti-O, and La-Al-O based systems has found that radiation damage resistance is related to the ability of the system to disorder.

## A one-pot synthetic approach to prepare palladium nanoparticles embedded hierarchically porous $\text{TiO}_2$ hollow spheres for hydrogen peroxide sensing

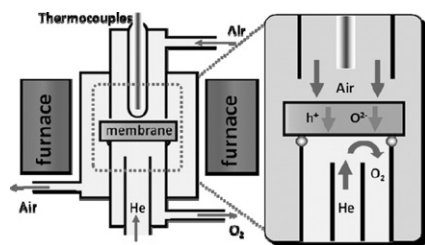
Lirong Kong, Xiaofeng Lu, Xiujie Bian, Wanjin Zhang and Ce Wang  
Page 2421



A new one-step solvothermal method was developed to prepare Pd nanoparticles embedded hierarchically porous  $\text{TiO}_2$  hollow spheres. Due to its unique nanostructure, the prepared  $\text{TiO}_2/\text{Pd}$  modified GC electrode exhibit a high sensitivity ( $226.72 \mu\text{A mM}^{-1} \text{cm}^{-2}$ ), a relatively low reduction potential ( $-0.2 \text{ V}$ ), a fast response time ( $<3 \text{ s}$ ) and a relatively low detection limit of  $3.81 \mu\text{M}$  ( $S/N=3$ ) towards  $\text{H}_2\text{O}_2$ .

## Oxygen-permeable membranes based on partially B-site substituted $\text{BaFe}_{1-y}\text{M}_y\text{O}_{3-\delta}$ ( $M = \text{Cu}$ or $\text{Ni}$ )

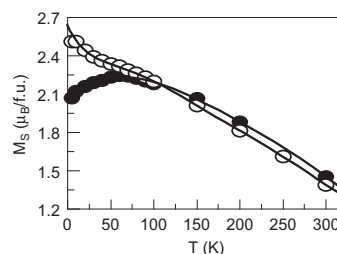
Tetsuya Kida, Atsunori Yamasaki, Ken Watanabe,  
Noboru Yamazoe and Kengo Shimano  
Page 2426



Partially Cu-substituted  $\text{BaFe}_{1-y}\text{Cu}_y\text{O}_{3-\delta}$  ( $y=0.1\text{-}0.15$ ) membranes exhibit high oxygen permeation fluxes at intermediate high temperatures ( $700\text{-}930 \text{ }^\circ\text{C}$ ) under an air/He gradient, due to the stabilization of the cubic perovskite phase by the substitution.

## Eu doping effects on structural and magnetic properties of $(\text{Sr}_{2-x}\text{Eu}_x)\text{FeMoO}_6$ compounds

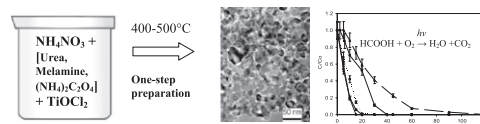
Q. Zhang, Y.G. Xiao, Z.F. Xu, G.Y. Liu, J.B. Li and  
G.H. Rao  
Page 2432



Temperature dependence of saturation magnetization of  $(\text{Sr}_{1.8}\text{Eu}_{0.2})\text{FeMoO}_6$  (filled circle) and  $(\text{Sr}_{1.8}\text{Nd}_{0.2})\text{FeMoO}_6$  (open circle).

## Preparation of nanodispersed titania using stabilized ammonium nitrate melts

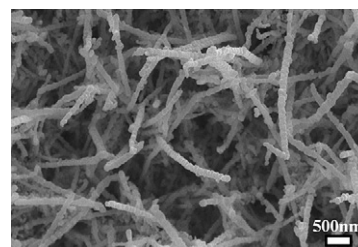
Monica Raciulete, Anna Kachina, Eric Puzenat and  
Pavel Afanasiev  
Page 2438



Ammonium nitrate melts stabilized by nitrogen-containing organic molecules can be applied for expedite one-step preparation of highly dispersed oxides, as exemplified by synthesis of titania photocatalysts.

## Annealing effects on the structure, photoluminescence, and magnetic properties of $\text{GaN}/\text{Mn}_3\text{O}_4$ core-shell nanowires

Hyo Sung Kim, Han Gil Na, Ju Chan Yang,  
Jong Hoon Jung, Yong Sung Koo, Nam Jung Hur and  
Hyoun Woo Kim  
Page 2445

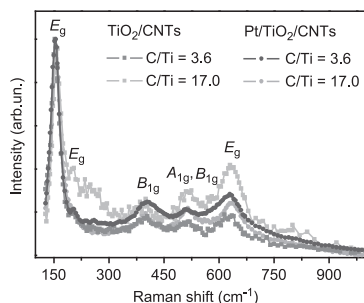


Novel  $\text{GaN}/\text{Mn}_3\text{O}_4$  core-shell nanowires were synthesized and the effects of thermal annealing on the structure, photoluminescence, and magnetic properties were investigated.

Continued

## Micro-Raman analysis of titanium oxide/carbon nanotubes-based nanocomposites for hydrogen sensing applications

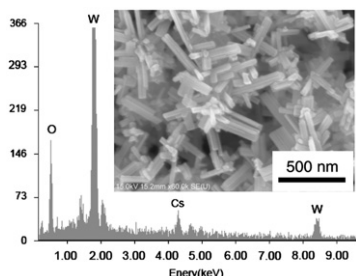
S. Santangelo, G. Messina, G. Faggio, A. Donato, L. De Luca, N. Donato, A. Bonavita and G. Neri  
Page 2451



Micro-Raman analysis of TiO<sub>2</sub>/CNTs and Pt/TiO<sub>2</sub>/CNTs hybrids for H<sub>2</sub> sensing applications evidences that regardless of C/Ti molar ratio titania crystallizes in the anatase phase. The very small size of TiO<sub>2</sub> crystallites (4.3–5.0 nm) is responsible for the observed phonon confinement effects.

## Microstructure and electrical-optical properties of cesium tungsten oxides synthesized by solvothermal reaction followed by ammonia annealing

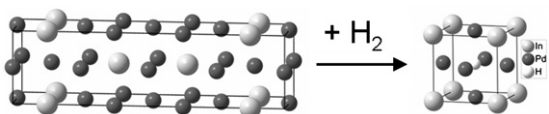
Jing-Xiao Liu, Yoshihiko Ando, Xiao-Li Dong, Fei Shi, Shu Yin, Kenji Adachi, Takeshi Chonan, Akikazu Tanaka and Tsugio Sato  
Page 2456



Cesium tungsten oxides (Cs<sub>x</sub>WO<sub>3</sub>) with different morphology were synthesized by solvothermal reaction, and the effects of post-ammonia annealing on the microstructure and electrical-optical properties were investigated.

## The anti-perovskite type hydride InPd<sub>3</sub>H<sub>0.89</sub>

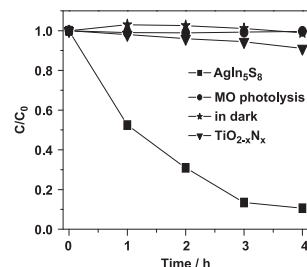
H. Kohlmann, A.V. Skripov, A.V. Soloninin and T.J. Udovic  
Page 2461



Hydrogen induces a rearrangement in InPd<sub>3</sub> from a ZrAl<sub>3</sub> type structure to a cubic AuCu<sub>3</sub> type structure, thus forming an anti-perovskite type hydride InPd<sub>3</sub>H<sub>0.89</sub>

## Microwave hydrothermal synthesis and photocatalytic activity of AgIn<sub>5</sub>S<sub>8</sub> for the degradation of dye

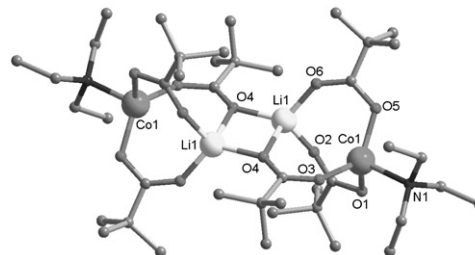
Wenjuan Zhang, Danzhen Li, Meng Sun, Yu Shao, Zhixin Chen, Guangcan Xiao and Xianzhi Fu  
Page 2466



Compared with TiO<sub>2-x</sub>N<sub>x</sub>, AgIn<sub>5</sub>S<sub>8</sub> has exhibited a superior activity under the same condition.

## Synthesis, structure, solid-state thermolysis, and thermodynamic properties of new heterometallic complex Li<sub>2</sub>Co<sub>2</sub>(Piv)<sub>6</sub>(NEt<sub>3</sub>)<sub>2</sub>

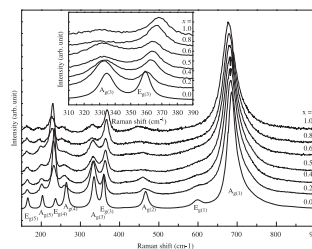
Zn.V. Dobrohotova, A.A. Sidorov, M.A. Kiskin, G.G. Aleksandrov, K.S. Gavrichev, A.V. Tyurin, A.L. Emelina, M.A. Bykov, A.S. Bogomyakov, I.P. Malkerova, A.S. Alihanian, V.M. Novotortsev and I.L. Eremenko  
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The solid-state thermolysis, study of the vaporization process, and temperature dependence of  $C_p$  for the new heterometallic complex Co<sub>2</sub>Li<sub>2</sub>(Piv)<sub>6</sub>(NEt<sub>3</sub>)<sub>2</sub> were performed. Decomposition of Co<sub>2</sub>Li<sub>2</sub>(Piv)<sub>6</sub>(NEt<sub>3</sub>)<sub>2</sub> results in the formation of LiCoO<sub>2</sub>.

## Structural characterization of the FeTiO<sub>3</sub>–MnTiO<sub>3</sub> solid solution

Xiang Wu, Shan Qin and Leonid Dubrovinsky  
Page 2483

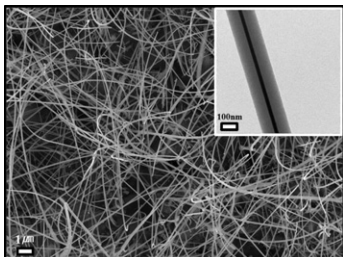


Raman spectra of the (Mn<sub>1-x</sub>Fe<sub>x</sub>)TiO<sub>3</sub> (0.0 ≤ x ≤ 1.0) system. Inset: the enlarged view from 310 to 390 cm<sup>-1</sup>. E<sub>g(3)</sub> shifts to high frequency and the remaining shifts to low frequency as xFeTiO<sub>3</sub> content increases.

## One-step fabrication and characterization of silica-sheathed ITO nanowires

Hyoun Woo Kim, Hyo Sung Kim, Han Gil Na, Ju Chan Yang, Rino Choi, Jae Kyeong Jeong, Chongmu Lee and Doo Young Kim

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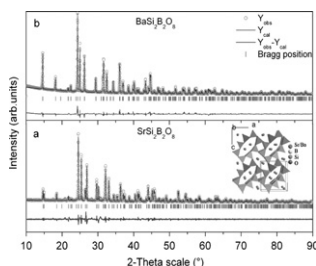
Novel ITO/amorphous  $\text{SiO}_x$  core-shell structures were synthesized by thermal evaporation. A Au-catalyzed VLS process is the dominant mechanism for the ITO nanowires, whereas  $\text{SiO}_x$  was grown in a tubular structure.

## Rapid Communications

### A new $\text{BaB}_2\text{Si}_2\text{O}_8:\text{Eu}^{2+}/\text{Eu}^{3+}, \text{Tb}^{3+}$ phosphor – Synthesis and photoluminescence properties

M.P. Saradhi, S. Boudin, U.V. Varadaraju and B. Raveau

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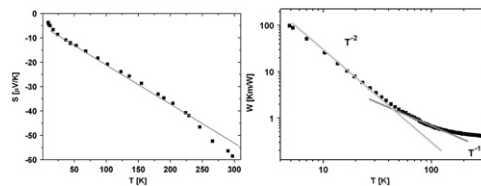


The figure shows structure refinement of both  $\text{MB}_2\text{Si}_2\text{O}_8$  [ $M = \text{Sr}, \text{Ba}$ ]. The structure refinement of newly synthesized phase  $\text{BaB}_2\text{Si}_2\text{O}_8$  was carried out by taking  $\text{SrB}_2\text{Si}_2\text{O}_8$  as starting structure model. Inset in the figure shows the structure projection of  $\text{BaB}_2\text{Si}_2\text{O}_8$ . The  $\text{Sr}^{2+}/\text{Ba}^{2+}$  are embedded in polyanionic network formed by corner sharing  $\text{BO}_4^{2-}$  and  $\text{SiO}_4^{4-}$  tetrahedral that intern form interconnected layers of 4 and 8 membered rings perpendicular to  $b$ -axis.

## Transport properties, specific heat and thermal conductivity of GaN nanocrystalline ceramic

Czesław Sułkowski, Andrzej Chuchmała, Andrzej J. Zaleski, Marcin Matusiak, Jan Mucha, Paweł Głuchowski and Wiesław Stręć

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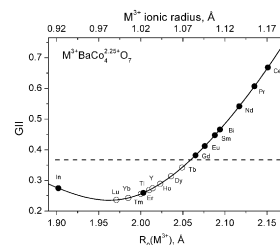


Thermal resistivity and thermopower measurements indicates the high phonon scattering and lack of phonon-drag contribution to thermopower in GaN nanoceramics pressed under 4 GPa at 800 °C.

## Geometric parameterization of the $\text{YBaCo}_4\text{O}_7$ structure type: Implications for stability of the hexagonal form and oxygen uptake

M. Avdeev, V.V. Kharton and E.V. Tsipis

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Global Instability Index (GII) for an  $\text{M}^{3+}\text{BaCo}_4^{2.25+}\text{O}_7$ .

## Author inquiries

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