

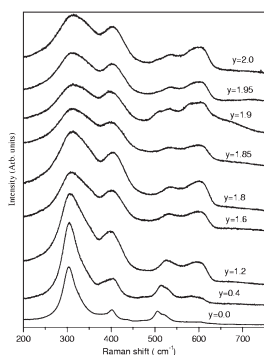
CONTENTS

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Regular Articles

Order-disorder transition in $\text{Nd}_{2-y}\text{Gd}_y\text{Zr}_2\text{O}_7$ pyrochlore solid solution: An X-ray diffraction and Raman spectroscopic study

B.P. Mandal, Ankita Banerji, Vasant Sathe, S.K. Deb and A.K. Tyagi
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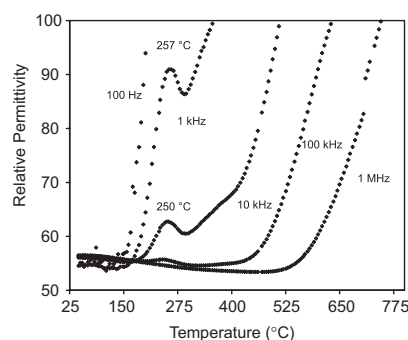


Raman spectra of $\text{Nd}_{2-y}\text{Gd}_y\text{Zr}_2\text{O}_7$ with increasing proportion of Gd in $\text{Nd}_{2-y}\text{Gd}_y\text{Zr}_2\text{O}_7$ series. A transition from ordered pyrochlore to disordered pyrochlore can be seen at $y \approx 1.8$.

Regular Articles—Continued

Crystal structure, magnetic, and dielectric properties of Aurivillius-type $\text{Bi}_3\text{Fe}_{0.5}\text{Nb}_{1.5}\text{O}_9$

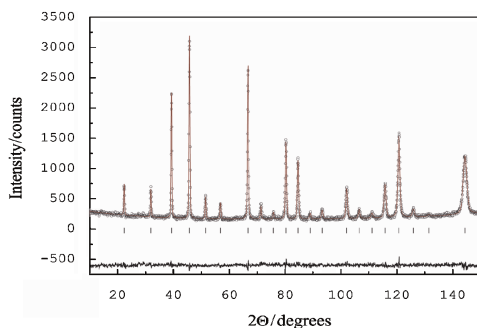
M.W. Lufaso, W.A. Schulze, S.T. Misture and T.A. Vanderah
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Temperature dependence of the relative permittivity of an Aurivillius-type $\text{Bi}_3\text{Fe}_{0.5}\text{Nb}_{1.5}\text{O}_9$.

Synthesis, Mo-valence state, thermal stability and thermoelectric properties of $\text{SrMoO}_{3-x}\text{N}_x$ ($x > 1$) oxynitride perovskites

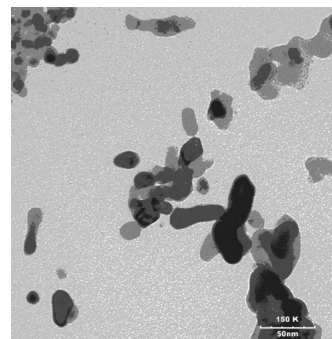
D. Logvinovich, R. Aguiar, R. Robert, M. Trottmann, S.G. Ebbinghaus, A. Reller and A. Weidenkaff
page 2649



Oxynitrides of the general composition $\text{SrMoO}_{3-x}\text{N}_x$ ($x > 1$) were synthesized by thermal ammonolysis of SrMoO_4 . X-ray and neutron diffraction detect no deviation from the cubic symmetry for the samples. X-ray absorption spectroscopy shows evidence of local distortions of $\text{Mo}(\text{O},\text{N})_6$ octahedra. The resistivity values of the samples are higher and the Seebeck coefficient values are lower than those of SrMoO_3 .

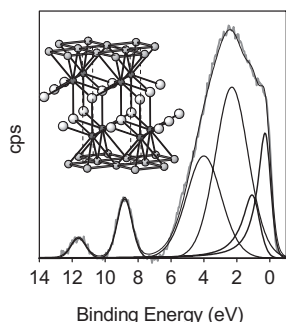
Synthesis of nano-sized crystalline oxide ion conducting fluorite-type Y_2O_3 -doped CeO_2 using perovskite-like $\text{BaCe}_{0.9}\text{Y}_{0.1}\text{O}_{2.95}$ (BCY) and study of CO_2 capture properties of BCY

B.R. Sneha and V. Thangadurai
page 2661



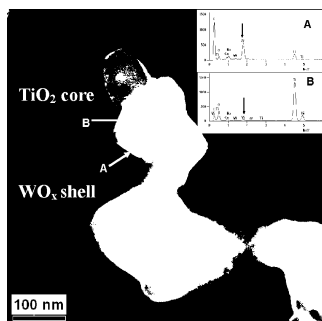
Transmission electron microscope (TEM) image of the fluorite-type Y_2O_3 -doped CeO_2 (YCO) powder prepared by the reaction between proton conducting BCY and CO_2 in the temperature range 700–1000 °C.

Analysis of the electronic structure of Hf(Si_{0.5}As_{0.5})As by X-ray photoelectron and photoemission spectroscopy
 Andrew P. Grosvenor, Ronald G. Cavell, Arthur Mar and Robert I.R. Blyth
 page 2670



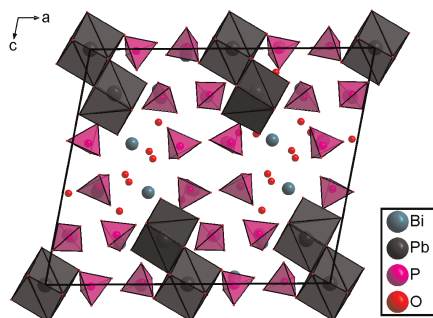
Fitted XPS valence band spectrum of Hf(Si_{0.5}As_{0.5})As, adopting the ZrSiS-type structure.

Evolution of titania nanotubes-supported WO_x species by *in situ* thermo-Raman spectroscopy, X-ray diffraction and high resolution transmission electron microscopy
 M.A. Cortes-Jácome, C. Angeles-Chavez, M. Morales, E. López-Salinas and J.A. Toledo-Antonio
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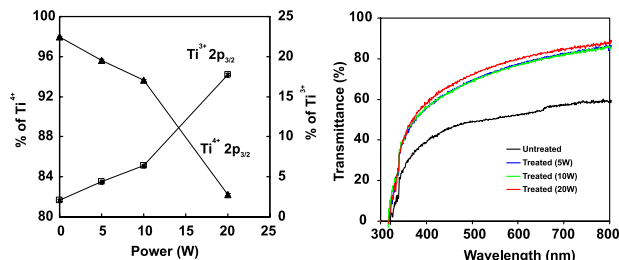
Titania nanotubes loaded with 15 wt% W atoms were characterized from room temperature (rt) to 1000 °C by thermo-Raman spectroscopy in N₂. At 1000 °C, a core-shell model material was obtained, with a shell thickness of *ca.* 5 nm composed by nanoclusters of sodium tungstate, and a core composed mainly of rutile TiO₂ phase.

Synthesis and crystal structure of Bi_{6.4}Pb_{0.6}P₂O_{15.2} A new polymorph in the series Bi_{6+x}M_{1-x}P₂O_{15+y}
 N. Arumugam, V. Lynch and H. Steinfink
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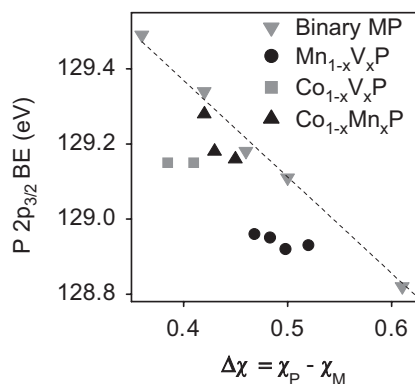
View of the structure of Bi_{6.4}Pb_{0.6}P₂O_{15.2} parallel to the *b*-axis.

Surface chemistry and optical property of TiO₂ thin films treated by low-pressure plasma
 Marshal Dhayal, Jin Jun, Hal Bon Gu and Kyung Hee Park
 page 2696



The surface chemistry and surface states of TiO₂ films was modified using low-pressure RF plasma treatment. The surface roughness and crystalline structure remain unchanged for low-pressure plasma-treated films. There was an increase in the Ti³⁺ surface states of Ti2*p* and this can be useful to increase the photocatalytic activities of TiO₂ films. The proportion of carbon atoms as carboxyl group in C1s was also increased after plasma treatment. All the plasma-treated films show a higher optical transmittance when untreated and it was increased when the power was increased. The increase in the optical transmission could be due to surface cleaning of films by plasma treatment and possibly due to change in the surface chemistry.

Next-nearest neighbour contributions to P 2*p*_{3/2} X-ray photoelectron binding energy shifts of mixed transition-metal phosphides M_{1-x}M'_xP with the MnP-type structure
 Andrew P. Grosvenor, Ronald G. Cavell and Arthur Mar
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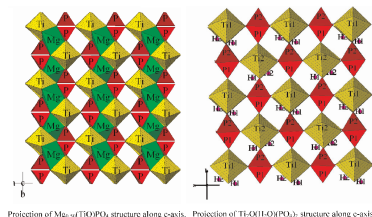
The mixed phosphides Co_{1-x}Mn_xP, Mn_{1-x}V_xP, and Co_{1-x}V_xP with the MnP-type structure have been studied by use of XPS and XANES. The P 2*p* binding energies in the mixed phosphides display shifts relative to the binary phosphides that cannot be explained by interaction of the nearest neighbours alone.

Continued

New process of preparation, structure, and physicochemical investigations of the new titanyl phosphate

Ti₂O(H₂O)(PO₄)₂

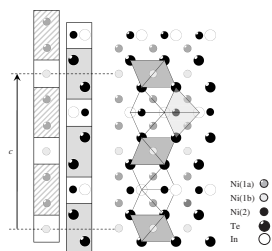
S. Benmokhtar, A. El jazouli, J.P. Chaminade, P. Gravereau, M. Ménétrier and F. Bourée
page 2713



The structure of TiHP can be described as a TiOPO₄ framework constituted by chains of tilted corner-sharing [TiO₆] octahedra and cross linked by [PO₄] tetrahedra with empty cavities in the framework.

Coupled In/Te and Ni/vacancy ordering and the modulated crystal structure of a B8 type, Ni_{3±x}In_{1-y}Te_{2+y} solid solution phase

A.-K. Larsson, L. Noren, R.L. Withers and H. Rundlöf
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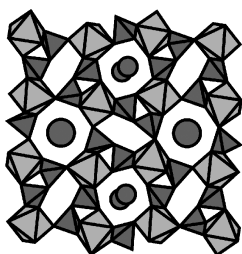


The crystal structure of Ni_{3.31}InTe₂ is a superstructure of the NiAs type structure with $\mathbf{q} = \gamma[001]^*$, $\gamma = 2/3$. The -In/Te/Te/- stacking sequence at the hcp array can be described with a crenel function with the length of the atomic domains $\Delta^{Te} = \gamma$ and $\Delta^{In} = 1 - \gamma$. With decreasing In and Ni content, the modulation wave vector, γ , increases continuously until $\gamma = 1$. The corresponding effect in real space is that the In layers separating double layers of Te occur less frequently until at $\gamma = 1$ the CdI₂ type structure of Ni_{1+x}Te₂ is reached.

Two mixed valent molybdenophosphates with a tunnel structure closely related to K_{0.17}MoP₂O₇:

Pb₂(PbO)₂Mo₈(P₂O₇)₈ and PbK₂Mo₈(P₂O₇)₈

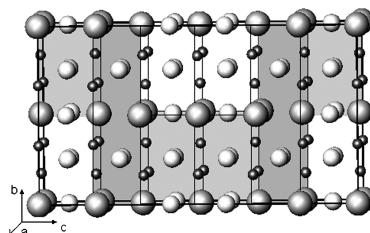
André Leclaire and Bernard Raveau
page 2734



The [Mo₈P₁₆O₅₆]_∞ framework showing the two kinds of eight-sided tunnels able to accept univalent or divalent ions.

La₃Ru₈B₆ and Y₃Os₈B₆, new members of a homologous series R(A)_nM_{3n-1}B_{2n}

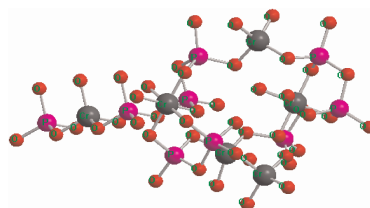
O.L. Sologub, L.P. Salamakha, H. Noël, T. Roisnel and A.P. Gonçalves
page 2740



Two new compounds, La₃Ru₈B₆ and Y₃Os₈B₆, were synthesized by arc melting the elements. From room temperature X-ray single-crystal and powder diffraction, both compounds were found to be isotypic with Ca₃Rh₈B₆ compound (*Fmmm* space group (no. 69), *Z* = 4) and their structures are built up from CeCo₃B₂-type and CeAl₂Ga₂-type structural fragments taken in ratio 2:1. They are the members of structural series R(A)_nM_{3n-1}B_{2n} with *n* = 3 (R is the rare earth metal, A the alkaline earth metal, and M the transition metal).

Characterization and physical properties of Li₂O–CaF₂–P₂O₅ glass ceramics with Cr₂O₃ as a nucleating agent—Physical properties

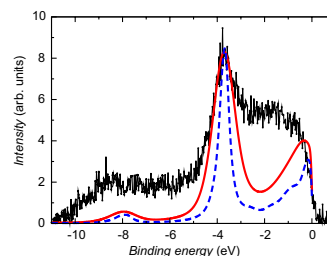
G. Murali Krishna, B. Anila Kumari, M. Srinivasa Reddy and N. Veeraiah
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The optical absorption spectroscopic studies on Li₂O–CaF₂–P₂O₅:Cr₂O₃ glass ceramics indicate that a part of Cr³⁺ ions oxidized into Cr⁶⁺ ions during the crystallization. These ions enter the glass network with CrO₄²⁻ structural units, alternate with PO₄ units and increase the rigidity of the glass-ceramic sample.

Electronic structure and magnetic properties of Ce₅CuPb₃

V.H. Tran, M. Gamza, A. Slebarski, J. Jarmulska and W. Miiller
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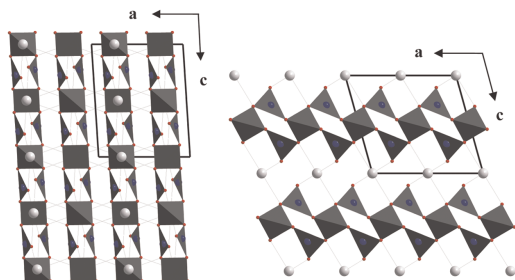


Comparison of the experimental valence band corrected by the background (thin line with crosses) with the theoretical spectra. These latter were convoluted by Lorentzians with a full-width-half-maximum (FWHM) of 0.4 eV (dashed line) or by the pseudoVoigt profile function with a FWHM of 0.8 eV and 0.5 eV for the Lorentzian and Gaussian components, respectively (solid line).

Phase stabilities of monoclinic oxoborates LaB_3O_6 and GdB_3O_6 in $C121$ and $I12/a1$ phase—Energetics and chemical bonds derived from first-principles calculations

Jun Yang and Michael Dolg

page 2763

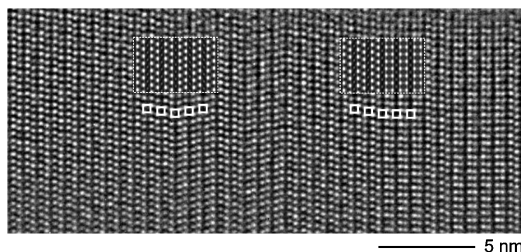


The electronic structures, energetics and metal–oxygen chemical bonds have been calculated for both monoclinic phases in the space groups of centrosymmetric $I12/a$ (left) and noncentrosymmetric $C2$ (right) for LaB_3O_6 and GdB_3O_6 , respectively, by the gradient corrected hybrid density functional theory.

Lamellar structures in neodymium borides

L. Kienle, V. Babizhetskyy, V. Duppel, R. Guérin and A. Simon

page 2775

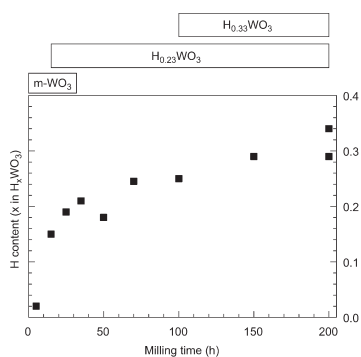


The lamellar real structure of neodymium borides made visible by HRTEM.

Formation of tetragonal hydrogen tungsten bronze by reactive mechanical alloying

G. Urretavizcaya, F. Tonus, E. Gaudin, J.-L. Bobet and F.J. Castro

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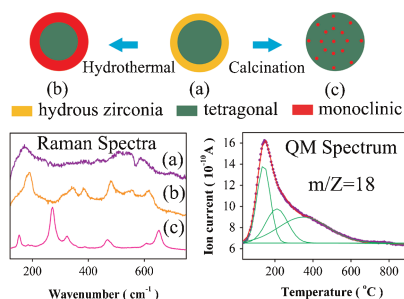


Hydrogen tungsten bronzes have been synthesized by reactive mechanical alloying (RMA) monoclinic WO_3 under H_2 atmosphere. By using two milling devices with different energy ranges a similar phase evolution with distinct reaction times was observed. The materials were characterized by XRD, SEM, DSC and total hydrogen content determination. The final product obtained was a mixture of tetragonal $\text{H}_{0.33}\text{WO}_3$ and $\text{H}_{0.23}\text{WO}_3$ bronzes.

Hydrated surface structure and its impacts on the stabilization of $t\text{-ZrO}_2$

Hui Wang, Guangshe Li, Yanfeng Xue and Liping Li

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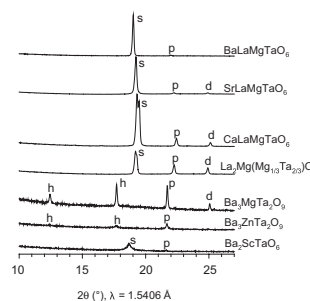


Surfaces of $t\text{-ZrO}_2$ were terminated by hydration layers, which completely transformed into $m\text{-ZrO}_2$ when treating at high hydrothermal temperatures. Alternatively, hydration layers transformed into $t\text{-ZrO}_2$ when annealing at $T < 700^\circ\text{C}$. $t\text{-ZrO}_2$ partially transformed into $m\text{-ZrO}_2$ in both bulk and surface regions at $T > 700^\circ\text{C}$.

Crystal structures and dielectric properties of ordered double perovskites containing Mg^{2+} and Ta^{5+}

Young-II Kim and Patrick M. Woodward

page 2798

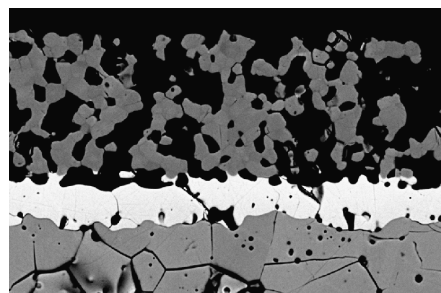


XRPD patterns at low angle range for the Mg/Ta complex perovskite oxides, showing various origins of diffraction planes: s—rock-salt type cation ordering, h—1:2 cation ordering, p—primitive cube edge, and d—octahedral tilting.

Physicochemical compatibility of SrCeO_3 with potential SOFC cathodes

J. Tolchard and T. Grande

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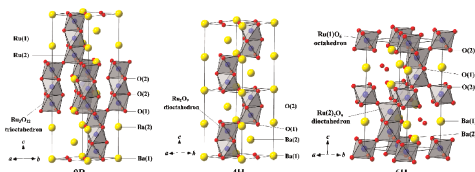


Assessment of the SrCeO_3 proton conductor shows this material to have poor chemical compatibility with LaMO_3 perovskite systems, but predicts coexistence with Ruddlesden-Popper type oxides.

Continued

Structural and physical properties of the 6H BaRuO₃ polymorph synthesized under high pressure

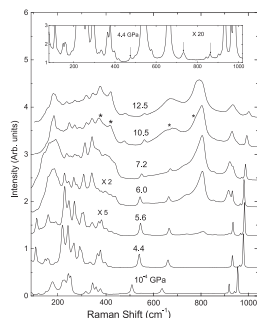
J.G. Zhao, L.X. Yang, Y. Yu, F.Y. Li, R.C. Yu, Z. Fang, L.C. Chen and C.Q. Jin
page 2816



The single-phase 6H BaRuO₃ was synthesized under high pressure high temperature. The electrical resistivity of 6H BaRuO₃ follows a $T^{3/2}$ relation below 60.0 K. Both magnetic susceptibility and specific heat data indicate that 6H BaRuO₃ is an exchange-enhanced Pauli paramagnet with the large Wilson ratio and Stoner enhancement factor.

High pressure behavior of α -NaVO₃: A Raman scattering study

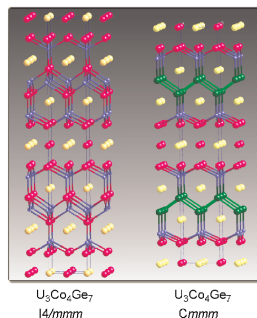
Rekha Rao, T. Sakuntala, A.M. Shaikh and S.K. Deb
page 2824



Raman spectra of α -NaVO₃ at different pressures. Spectrum in the range 90–460 cm⁻¹ have a scale factor of 5–5.6 GPa, and thereafter a factor of 2. Inset shows the appearance of weak peaks above 4.4 GPa. *Indicates the modes which increase in intensity above 9 GPa.

Synthesis, structure and physical properties of the new uranium ternary phase U₃Co₂Ge₇

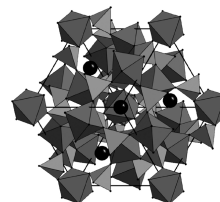
Svilen Bobev, Eric D. Bauer, Filip Ronning, Joe D. Thompson and John L. Sarrao
page 2830



A new uranium compound, U₃Co₂Ge₇ has been synthesized and structurally characterized. The close structural relationship between the orthorhombic structure of U₃Co₂Ge₇ and the tetragonal structure of U₃Co₄Ge₇ is emphasized. U₃Co₂Ge₇ is a moderate heavy-fermion ferromagnet (or ferrimagnet) at 40 K that undergoes another transition at 20 K.

Mn³⁺ stabilization in complex phosphate–fluoride fluxes and its incorporation into langbeinite framework

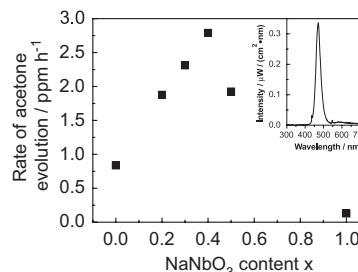
Ivan V. Ogorodnyk, Igor V. Zatovsky, Vyacheslav N. Baumer, Nikolay S. Slobodyanik, Oleg V. Shishkin and Igor P. Vorona
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Polyhedron view of K_{1.96}Mn_{0.57}Zr_{1.43}(PO₄)₃ along [111] direction. [MO₆] octahedra—blue, [PO₄] tetrahedra—purple, potassium cations—black circles.

Composition dependence of the photophysical and photocatalytic properties of (AgNbO₃)_{1-x}(NaNbO₃)_x solid solutions

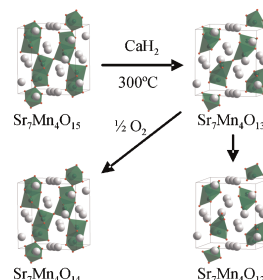
Guoqiang Li, Tetsuya Kako, Defa Wang, Zhigang Zou and Jinhua Ye
page 2845



A series of orthorhombic photocatalysts (AgNbO₃)_{1-x}(NaNbO₃)_x solid solutions have been synthesized by a solid-state reaction method. The composition dependence of the photophysical and photocatalytic properties of synthesized solid solutions has been investigated systematically. The solid solutions show higher visible-light photocatalytic activities for gaseous IPA decomposition in comparison with AgNbO₃, although the light intensity is 0.01 mW cm⁻². Rate of acetone evolution under visible-light irradiation as a function of NaNbO₃ content in (AgNbO₃)_{1-x}(NaNbO₃)_x. The inset is the spectrum of BLEDs. The light intensity is 0.01 mW cm⁻².

Anion vacancy ordering in Sr₇Mn₄O_{15-x} phases

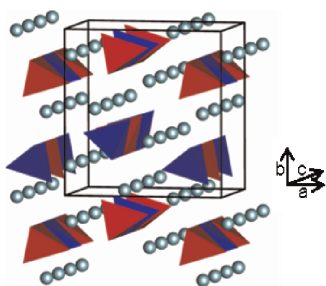
Michelle O'Malley, Michelle A. Lockett and Michael A. Hayward
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Topotactic reduction of Sr₇Mn₄O₁₅ selectively removes apex-linked oxide ions.

Long-range magnetic ordering in Ba₂CoS₃: A neutron diffraction study

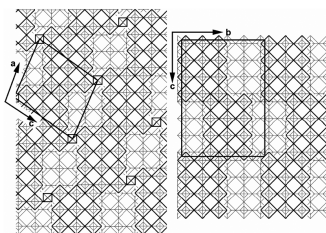
D.A. Headspith, P.D. Battle and M.G. Francesconi
page 2859



Neutron powder diffraction has been used to prove that Ba₂CoS₃ shows long-range antiferromagnetic order at low temperatures, despite the quasi-one-dimensional arrangement of the CoS₄ tetrahedra in the crystal structure.

Structures of the reduced niobium oxides Nb₁₂O₂₉ and Nb₂₂O₅₄

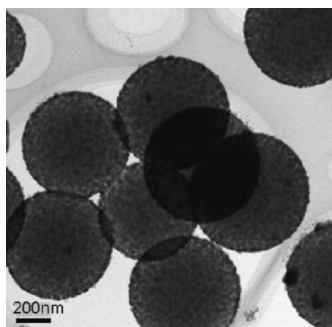
T. McQueen, Q. Xu, E.N. Andersen, H.W. Zandbergen and R.J. Cava
page 2864



The crystal structure of Nb₂₂O₅₄ is reported, and the structure of orthorhombic Nb₁₂O₂₉ is reexamined. Bond valence sums do not show the presence of charge ordering, suggesting that all 4d electrons are delocalized in these compounds at $T=200$ K, despite the well-known magnetic behavior of these materials.

Synthesis and characterization of silica–silver core–shell composite particles with uniform thin silver layers

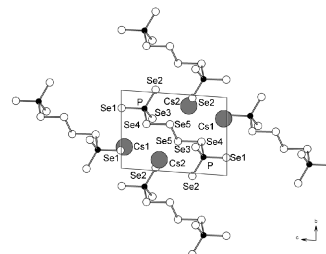
Shaochun Tang, Yuefeng Tang, Shaopeng Zhu, Haiming Lu and Xiangkang Meng
page 2871



Silica–silver core–shell composite particles with uniform thin silver layers are prepared by a facile and one-step ultrasonic electro-deposition method. Moreover, the continuity of Ag distribution, the surface roughness and the thickness of silver layer are controllable. Optical properties of the composite particles with different silver content were also investigated.

Cs₄P₂Se₁₀: A new compound discovered with the application of solid-state and high temperature NMR

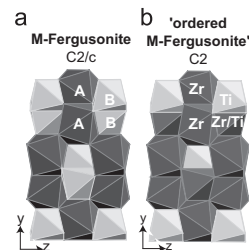
Matthew A. Gave, Christian G. Canlas, In Chung, Ratnasabapathy G. Iyer, Mercuri G. Kanatzidis and David P. Weliky
page 2877



The new compound Cs₄P₂Se₁₀ was discovered following a high-temperature *in situ* synthesis in the NMR spectrometer and the structure was determined by single-crystal X-ray diffraction. It contains the new [P₂Se₁₀]⁴⁻ anion.

Synthesis of zirconium titanate with an ordered M-fergusonite (beta) structure

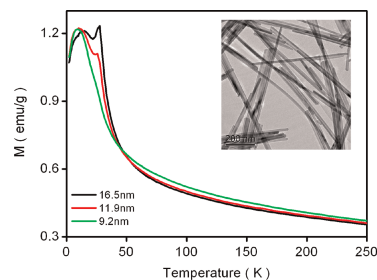
Ulrike Troitzsch, Andrew G. Christy and David J. Ellis
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Crystal structure of zirconium titanate with 27.5–35 mol% TiO₂. (a) As refined in present study with M-fergusonite structure, with site A occupied predominantly with Zr, and site B with a random mix of Ti and Zr. (b) Actual cation ordering pattern of this compound as indicated by superstructure reflections, resulting in the splitting of site B into two distinct sites.

One-dimensional α -MnO₂: Trapping chemistry of tunnel structures, structural stability, and magnetic transitions

Liping Li, Yinzhen Pan, Lijuan Chen and Guangshe Li
page 2896

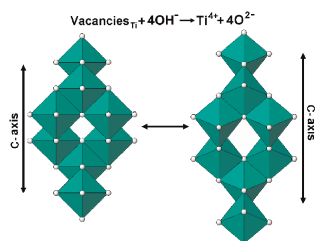


Highly crystalline one-dimensional (1D) α -MnO₂ nanostructures were achieved to have tunnel structures modified by NH₄⁺ species and water molecules. By tuning the diameters, 1D α -MnO₂ showed two magnetic transition as indicated by hump and kink peaks at low temperatures. Mn ions presented in 1D α -MnO₂ were determined to be in a mixed valency of high spin state Mn⁴⁺/Mn³⁺.

Continued

The influence of cobalt doping on photocatalytic nano-titania: Crystal chemistry and amorphicity

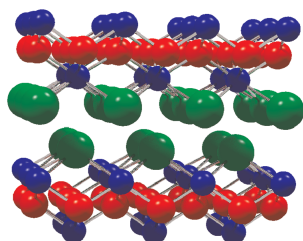
Suo Hon Lim, Cristiano Ferraris, Martin Schreyer, Kaimin Shih, James O. Leckie and T.J. White
page 2905



Cobaltiferous titania photocatalysts calcined at 200 °C contain up to 16 at% metal vacancies (V) and are significantly amorphous (up to 53 wt%). The presence of metal vacancies can be monitored by following the dilation of the 'c' lattice parameter as the crystallite size increases during calcination.

Rapid and exothermic solid-state synthesis of metal oxyhalides and their solid solutions via energetic metathesis reactions

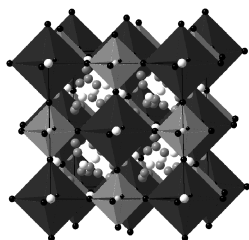
Sujith Perera, Nadiya A. Zelenski, Randy E. Pho and Edward G. Gillan
page 2916



Very rapid, filament-initiated metathesis reactions between two solids, metal trihalides and Na₂O₂, lead to crystalline metal oxyhalides in seconds. All products crystallize in the PbFCl structure (BiOCl shown). In addition to single metal MOCl (Bi, La, Sm, Gd) and BiOI systems, solid-solution Gd_xSm_{1-x}OCl materials are also rapidly accessible using this reactive precursor strategy.

Crystal structure and electronic properties of the new compounds, U₆Fe₁₆Si₇ and its interstitial carbide U₆Fe₁₆Si₇C

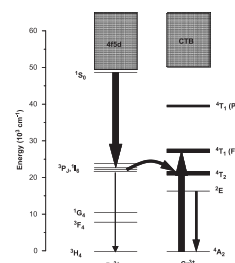
D. Berthebaud, O. Tougait, M. Potel, E.B. Lopes, A.P. Gonçalves and H. Noël
page 2926



The new compounds U₆Fe₁₆Si₇ and U₆Fe₁₆Si₇C crystallize with the ternary ordered variant of the Th₆Mn₂₃ type, commonly referred as Mg₆Cu₁₆Si₇ and with a novel "filled" variant of this type of structure, respectively.

Photon cascade luminescence in CaAl₁₂O₁₉:Pr, Cr

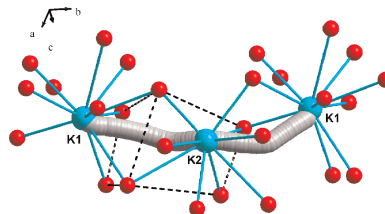
Z.G. Nie, J.H. Zhang, X. Zhang, S.Z. Lü, X.G. Ren, G.B. Zhang and X.J. Wang
page 2933



The Cr³⁺ ion was chosen as a co-dopant to modify the photon cascade emission properties of CaAl₁₂O₁₉: Pr via energy transfer. The cascade emission process and the energy transfer mechanisms were systemically investigated. The drawback for CaAl₁₂O₁₉: Pr, Cr as a practical VUV phosphor was also discussed.

The iron potassium diarsenate KFeAs₂O₇ structural, electric and magnetic behaviors

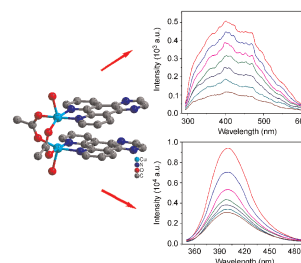
N. Ouerfelli, A. Guesmi, P. Molinié, D. Mazza, M.F. Zid and A. Driss
page 2942



Optimized trajectory for K1–K2–K1 jump as determined by BVS analysis.

Self-assembled multilayer films of poor water-soluble copper(II) complexes constructed from dipyrido[3,2-*d*:2',3'-*f*]quinoxaline (Dpq) ligand as well as their fluorescent properties

Xiuli Wang, Jiani Fang, Yanfeng Bi, Haiyan Zhao, Baokuan Chen, Hongyan Lin and Guocheng Liu
page 2950

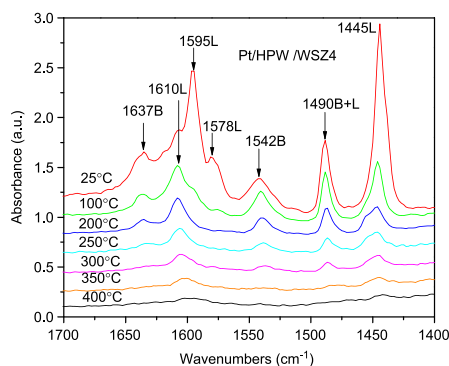


Poor water-soluble copper(II) complexes constructed from dipyrido[3,2-*d*:2',3'-*f*]quinoxaline ligand have been synthesized and structurally characterized by single-crystal X-ray diffraction analyses. The complexes were used to fabricate the highly ordered multilayer films by layer-by-layer (LBL) self-assembly methods. The fluorescent properties of the films were studied and the results showed that the forming condition of films have great influence on their properties.

Continued

Synthesis and physicochemical properties of Zr-MCM-41 mesoporous molecular sieves and Pt/H₃PW₁₂O₄₀/Zr-MCM-41 catalysts

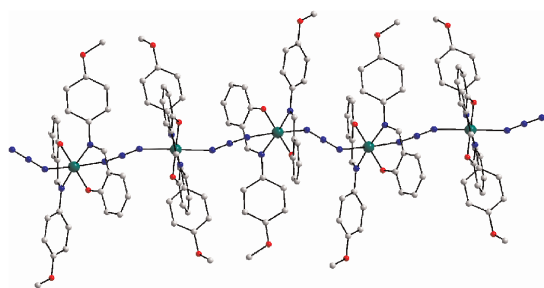
L.F. Chen, J.A. Wang, L.E. Noreña, J. Aguilar, J. Navarrete, P. Salas, J.A. Montoya and P. Del Ángel
page 2958



Modifications of the surface and framework of Si-MCM-41 by depositing a heteropolyacid on the surface and by introducing foreign Zr⁴⁺ ions into the framework are investigated. Brønsted acidity of the Pt/H₃PW₁₂O₄₀/Zr-MCM-41 catalysts was greatly enhanced by 2–10 times relative to the bare Zr-MCM-41 support.

A one-dimensional azido-bridged manganese(III) complex with bidentate Schiff base: Crystal structure and magnetic properties

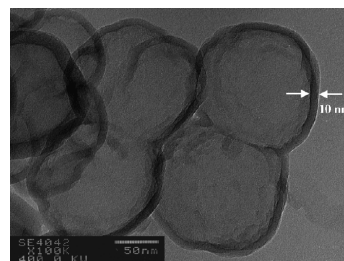
Wei Li, Zongwei Li, Licun Li, Daizheng Liao and Zonghui Jiang
page 2973



A novel azido-bridged manganese(III) complex with bidentate Schiff base ligands has been prepared and characterized structurally and magnetically. The complex is of one-dimensional chain structure with single end-to-end azido bridges in axial positions. Two bidentate Schiff base ligands coordinate in the equatorial mode. The magnetic measurements show that the complex exhibits weak antiferromagnetic interaction.

Hematite template route to hollow-type silica spheres

Yang-Su Han, Gee-Young Jeong, Sun-Young Lee and Ho-Kun Kim
page 2978

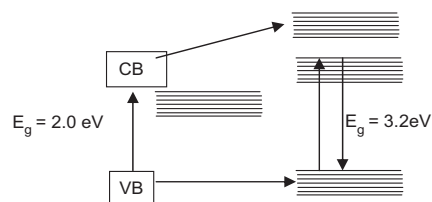


TEM micrograph of the hollow silica particles. Wall thickness, as estimated by TEM from the ring around the perimeter of the hollow spheres, was ~10 nm. TEM micrographs of hollow silica spheres show that the sphericity of the core Fe₂O₃ was preserved.

Rapid Communications

Synthesis and photocatalytic activity of poly(3-hexylthiophene)/TiO₂ composites

B. Muktha, Debajyoti Mahanta, Satish Patil and Giridhar Madras
page 2986



Photocatalytic mechanism of the polymer composite with titania. A new heterogeneous conducting polymer composite with titania (P3HT/TiO₂) was synthesized and the photocatalytic activity this composite was investigated by degrading a common dye under UV exposure. It was shown that the nanocomposite exhibited synergetic photocatalytic catalytic activity compared to either the polymer or TiO₂ alone. The scheme of the possible mechanism of enhancement of photocatalytic degradation rate in a conducting polymer nanocomposite is shown in the figure.

Corrigendum

Corrigendum to “Synthesis and crystal structure of LiBa₂N and identification of LiBa₃N” [J. Solid State Chem. 180 (2007) 1889–1893]

Volodymyr Smetana, Volodymyr Babizhetskyy, Grigori V. Vajenine and Arndt Simon
page 2990

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