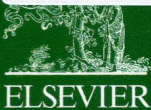


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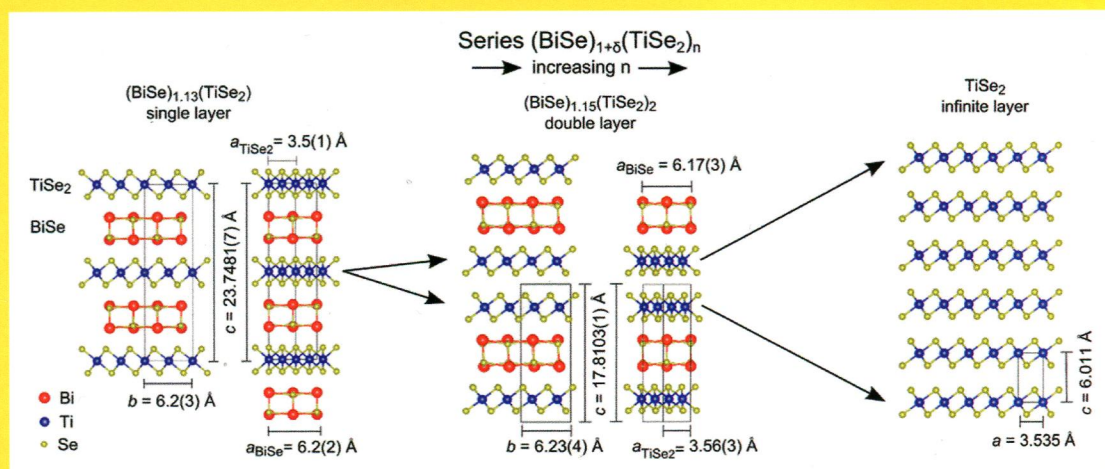
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The new misfit compound $(\text{BiSe})_{1.15}(\text{TiSe}_2)_2$ and the role of dimensionality in the $\text{Cu}_x(\text{BiSe})_{1+\delta}(\text{TiSe}_2)_n$ series



Benjamin A. Trump, Kenneth J.T. Livi,
and Tyrel M. McQueen

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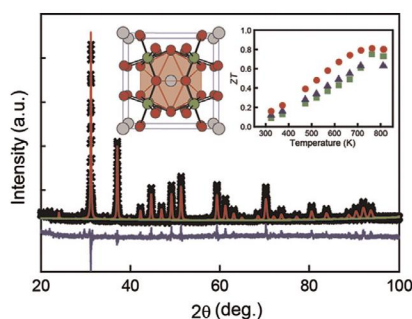
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Crystal structure and high temperature transport properties of Yb-filled *p*-type skutterudites

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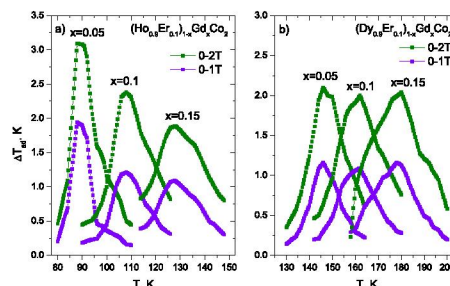


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Magnetism and magnetocaloric effect in multicomponent Laves-phase compounds: Study and comparative analysis

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Temperature dependencies of ΔT_{ad} induced by $\mu_0 H=1$ and 2 T in (a) $(\text{Ho}_{0.9}\text{Er}_{0.1})_{1-x}\text{Gd}_x\text{Co}_2$ and (b) $(\text{Dy}_{0.9}\text{Er}_{0.1})_{1-x}\text{Gd}_x\text{Co}_2$ solid solutions.

LiMn₂O₄ nanoparticles anchored on graphene nanosheets as high-performance cathode material for lithium-ion batteries

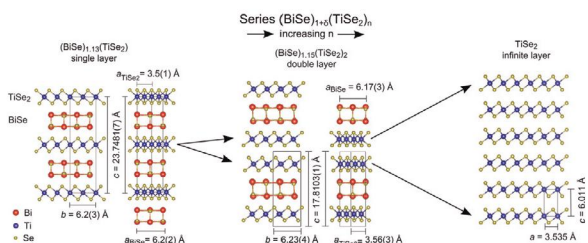
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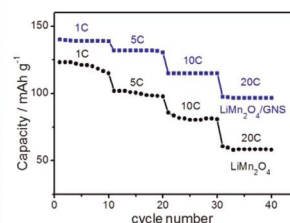
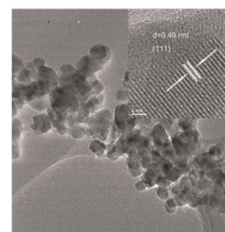
The new misfit compound (BiSe)_{1.15}(TiSe₂)₂ and the role of dimensionality in the Cu_x(BiSe)_{1+δ}(TiSe₂)_n series

Benjamin A. Trump, Kenneth J.T. Livi and Tyrel M. McQueen

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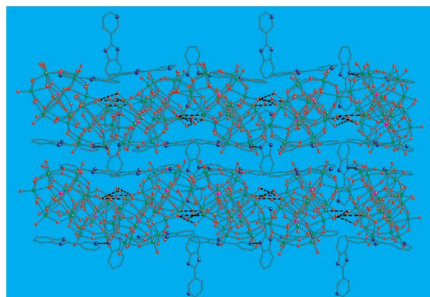


The newly discovered misfit compound $(\text{BiSe})_{1.15}(\text{TiSe}_2)_2$ shown in the series $(\text{BiSe})_{1+\delta}(\text{TiSe}_2)_n$.



Nanocrystalline LiMn_2O_4 /graphene nanosheets (GNS) nanocomposite exhibit superior cathode performance for lithium-ion batteries compared to the bare LiMn_2O_4 nanoparticles.

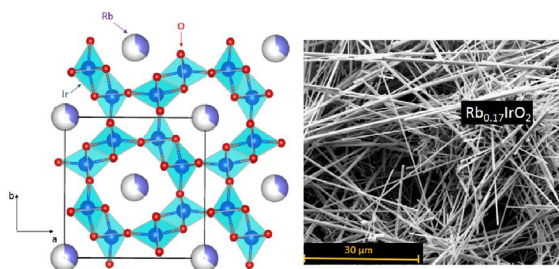
Two proton-conductive hybrids based on 2-(3-pyridyl) benzimidazole molecules and Keggin-type heteropolyacids
 Mei-Lin Wei, Yu-Xia Wang and Xin-Jun Wang
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Two molecular hybrids constructed by Keggin-type heteropolyacids and 2-(3-pyridyl)benzimidazole molecules showed good proton conductivities of $10^{-3} \text{ S cm}^{-1}$ at 100°C under 35–98% relative humidity.

Structure and elementary properties of the new Ir hollandite $\text{Rb}_{0.17}\text{IrO}_2$

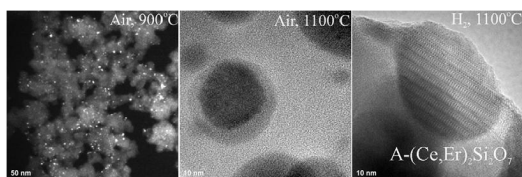
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Crystal structure of $\text{Rb}_{0.17}\text{IrO}_2$ (right), and the SEM image of $\text{Rb}_{0.17}\text{IrO}_2$, showing the growth of thin needles (left).

Interaction of $\text{Ce}_{1-x}\text{Er}_x\text{O}_{2-y}$ nanoparticles with SiO_2 -effect of temperature and atmosphere

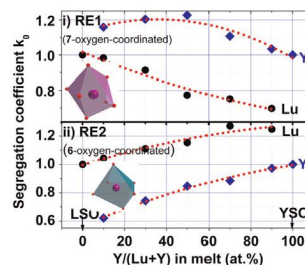
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Structure evolution of $\text{Ce}_{0.5}\text{Er}_{0.5}\text{O}_{1.75}$ in air and in H_2 .

Influence of yttrium content on the location of rare earth ions in $\text{LYSO}:\text{Ce}$ crystals

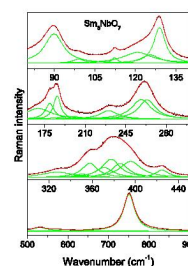
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Segregation coefficients of $(\text{Lu}_{1-x}\text{Y}_x)_2\text{SiO}_5:\text{Ce}$ with different x .

Synchrotron X-ray diffraction and Raman spectroscopy of Ln_3NbO_7 ($\text{Ln}=\text{La}, \text{Pr}, \text{Nd}, \text{Sm-Lu}$) ceramics obtained by molten-salt synthesis

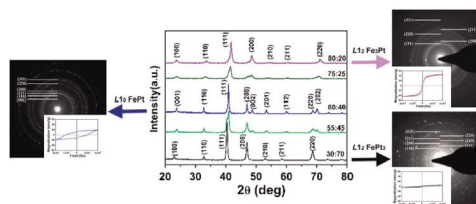
K.P.F. Siqueira, J.C. Soares, E. Granado, E.M. Bittar, A.M. de Paula, R.L. Moreira and A. Dias
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Raman spectrum for Sm_3NbO_7 ceramics showing their 27 phonon modes adjusted through Lorentzian lines. According to synchrotron X-ray diffraction and Raman scattering, this material belongs to the space group Cmcm .

Structural and magnetic properties of the ordered FePt_3 , FePt and Fe_3Pt nanoparticles

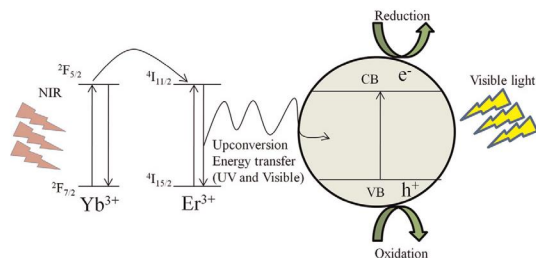
Yang Liu, Yuhong Jiang, Xiaolong Zhang, Yaxin Wang, Yongjun Zhang, Huilian Liu, Hongju Zhai, Yanqing Liu, Jinghai Yang and Yongsheng Yan
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Fe_3Pt , FePt and FePt_3 nanoparticles was obtained by sol-gel method. The effect of iron and platinum content on structural and magnetic properties of the FePt nanoparticles was investigated.

Er³⁺/Yb³⁺ co-doped bismuth molybdate nanosheets upconversion photocatalyst with enhanced photocatalytic activity

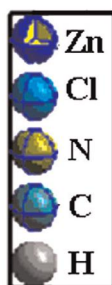
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Schematic illustration of the upconversion photocatalysis.

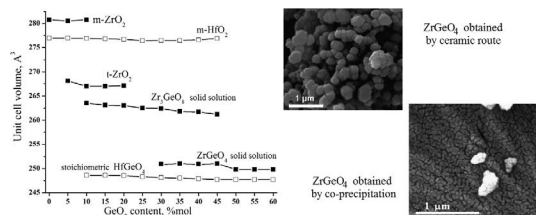
Crystal structure and electric properties of the organic-inorganic hybrid: [(CH₂)₆(NH₃)₂][ZnCl₄]

M.F. Mostafa and S.S. El-khiyami
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Composition and microstructure of zirconium and hafnium germanates obtained by different chemical routes

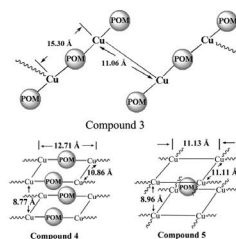
A.V. Utkin, V.E. Prokip and N.I. Baklanova
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The phase composition and morphology of zirconium and hafnium germanates synthesized by ceramic and co-precipitation routes were studied. It was stated that there is the strong dependence of the phase composition and morphology of products on the preparation route.

Five inorganic-organic hybrids based on Keggin polyanion [SiMo₁₂O₄₀]⁴⁻: From 0D to 2D network

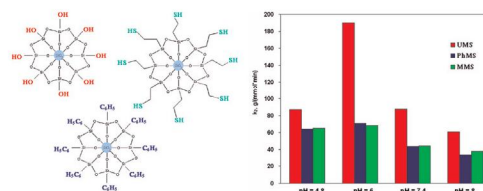
Xiao-Yang Yu, Xiao-Bing Cui, Jing Lu, Yu-Hui Luo, Hong Zhang and Wei-Ping Gao
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Five new compounds based on [SiMo₁₂O₄₀]⁴⁻ have been successfully generated. [SiMo₁₂O₄₀]⁴⁻ anions play different roles in the structures of the five compounds.

The effects of surface chemistry of mesoporous silica materials and solution pH on kinetics of molsidomine adsorption

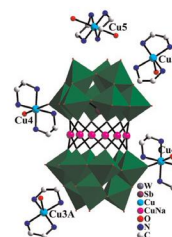
E.S. Dolinina and E.V. Parfenyuk
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The kinetic study showed that the k_2 value, the rate constant of pseudo-second order kinetic model, is the highest for molsidomine adsorption on UMS and strongly depends on pH because it is determined by availability and accessibility of the reaction sites of the adsorbents molsidomine binding.

Hydrothermal synthesis and structural characterization of an organic-inorganic hybrid sandwich-type tungstoantimonate [Cu(en)₂(H₂O)]₄[Cu(en)₂(H₂O)₂][Cu₂Na₄(α-SbW₉O₃₃)₂]·6H₂O

Yingjie Liu, Jing Cao, Yujie Wang, Yanzhou Li, Junwei Zhao, Lijuan Chen, Pengtao Ma and Jingyang Niu
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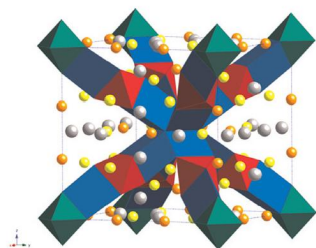
An organic-inorganic hybrid {Cu₂Na₄} sandwiched tungstoantimonate [Cu(en)₂(H₂O)]₄[Cu(en)₂(H₂O)₂][Cu₂Na₄(α-SbW₉O₃₃)₂]·6H₂O was synthesized and magnetic properties was investigated.

Continued

Structural chemistry and magnetic properties of $\text{Nd}_{18}\text{Li}_8\text{Fe}_4M'\text{O}_{39}$ ($M'=\text{Al, Ga}$) and $\text{La}_{18}\text{Li}_8\text{Fe}_{4.5}\text{In}_{0.5}\text{O}_{39}$

Nirawat Thammajak, Peter D. Battle, Catherine Brown, Katherine Higgin and Rhian Stansfield

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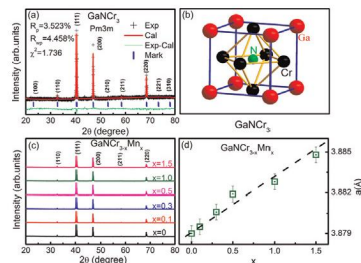


At low temperatures $\text{Nd}_{18}\text{Li}_8\text{Fe}_4M'\text{O}_{39}$ ($M'=\text{Al, Ga}$) behave as spin glasses whereas small ferrimagnetic domains form in $\text{La}_{18}\text{Li}_8\text{Fe}_{4.5}\text{In}_{0.5}\text{O}_{39}$.

Synthesis and characterization of antiperovskite nitrides $\text{GaNCr}_{3-x}\text{Mn}_x$

Shuai Lin, Peng Tong, Bosen Wang, Yanan Huang, Dingfu Shao, Wenjian Lu and Yu Ping Sun

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The Rietveld refinement and structural properties of $\text{GaNCr}_{3-x}\text{Mn}_x$.

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