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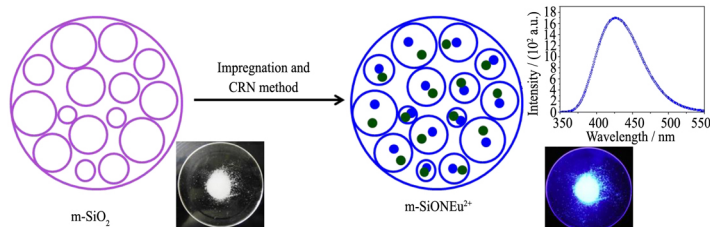
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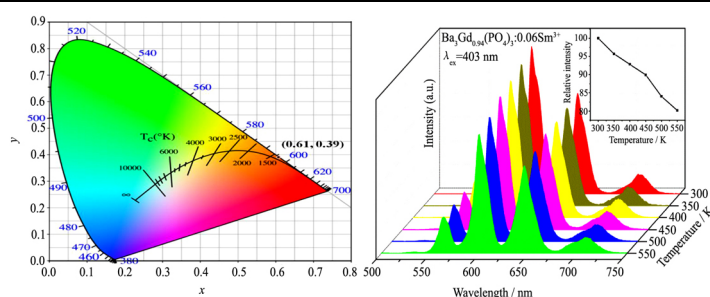


D. Suresh, M. Yamashita, T. Akai

Blue luminescent Eu^{2+} -doped mesoporous silicon oxy-nitride materials were synthesized *via* impregnation, nanocasting and, carbothermal reduction and nitridation method. The mesoporous of silicon oxy-nitride act as a host to successfully isolate the luminescent Eu^{2+} ions into the pores and prevent them from aggregation and hence enhanced the luminescent emission efficiency

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- 456 Luminescence properties of phosphate phosphors $\text{Ba}_3\text{Gd}_{1-x}(\text{PO}_4)_3:x\text{Sm}^{3+}$

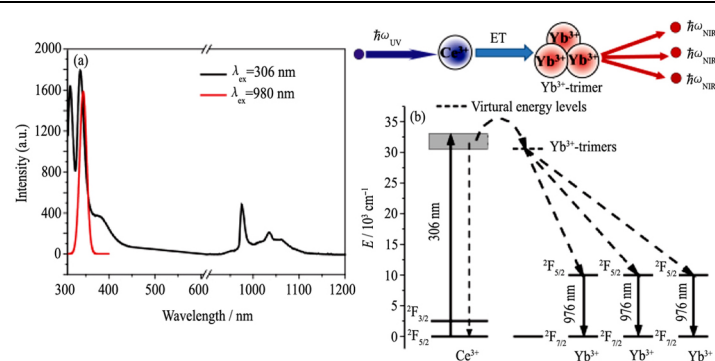


Honghui Li, Xinghong Gong, Yujin Chen, Jianhua Huang, Yanfu Lin, Zundu Luo, Yidong Huang

Anovel orange-red emitting phosphor $\text{Ba}_3\text{Gd}_{0.94}(\text{PO}_4)_3:0.06\text{Sm}^{3+}$ with high thermal stability under near-UV light excitation

J. Rare Earths, (36) 2018: 456-460

- 461 Cooperative energy acceptor of three Yb^{3+} ions

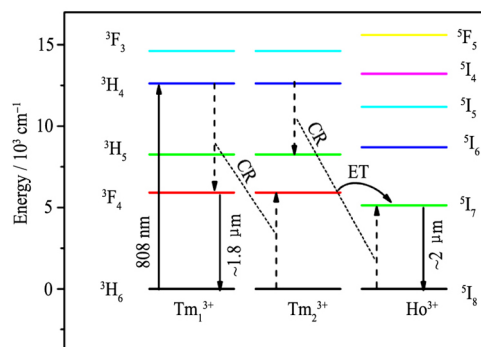


Junjie Guo, Weihua Di, Tuerxun Aidilibike, Yangyang Li, Xiaohui Liu, Weiping Qin

(a) Down conversion emission spectrum (black line) and upconversion emission spectrum (red line) of $\text{CaF}_2:\text{Yb}^{3+}, \text{Ce}^{3+}, \text{Na}^+$ excited by 306 nm and 980 nm, respectively; (b) Schematic energy level diagram of Yb^{3+} and Ce^{3+} , as well as the proposed QC mechanisms under 306 nm excitation

J. Rare Earths, (36) 2018: 461-467

- 468 Energy transfer and 2 μm emission in $\text{Tm}^{3+}/\text{Ho}^{3+}$ co-doped $(\text{Y}_{0.87}\text{La}_{0.1}\text{Zr}_{0.03})_2\text{O}_3$ Nanopowders



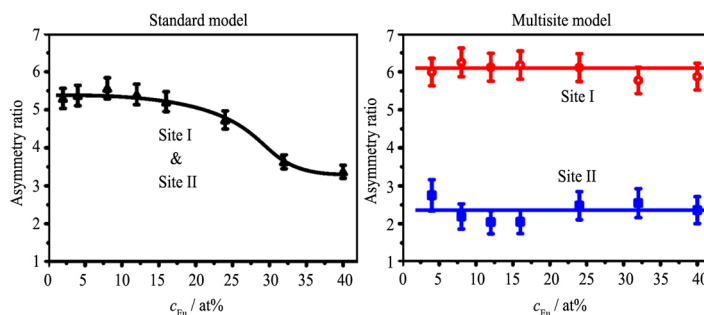
Efficient energy transfer (ET) from Tm^{3+} to Ho^{3+} under the excitation of 808 nm can be achieved in Y_2O_3

Yaqian Chen, Huanping Wang, Xiaoting Zhang, Zhen Xiao, Qinghua Yang, Ruoshan Lei, Degang Deng, Lihui Huang, Shiqing Xu

J. Rare Earths, (36) 2018: 468-473

- 474 Asymmetry ratio as a parameter of Eu^{3+} local environment in phosphors

Ilya E. Kolesnikov, Alexey V. Povolotskiy,
Daria V. Mamonova, Evgeny Yu. Kolesnikov,
Alexey V. Kurochkin, Erkki Läderanta,
Mikhail D. Mikhailov

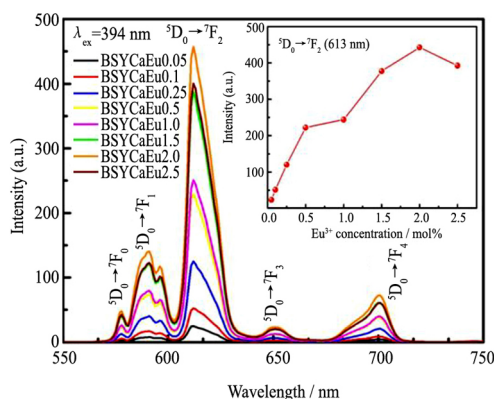


Asymmetry ratio as a function of Eu^{3+} doping concentration for $\text{Y}_2\text{O}_3:\text{Eu}^{3+}$ NPs calculated using standard and multisite models

J. Rare Earths, (36) 2018: 474-481

- 482 Optical and luminescence characteristics of Eu^{3+} -doped $\text{B}_2\text{O}_3:\text{SiO}_2:\text{Y}_2\text{O}_3:\text{CaO}$ glasses for visible red laser and scintillation material applications

Pabitra Aryal, C.R. Kesavulu, H.J. Kim,
S.W. Lee, Sang Jun Kang, J. Kaewkhao,
N. Chanthima, B. Damdee



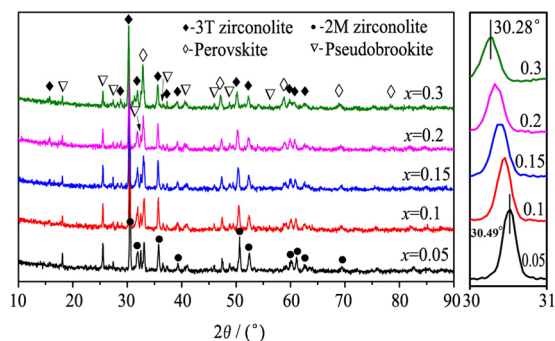
Room temperature emission spectra of Eu^{3+} doped BSYCaEu glasses. Inset shows the emission intensity of dominant ${}^5\text{D}_0 \rightarrow {}^7\text{F}_2$ transition as a function of concentration of Eu^{3+} ions

J. Rare Earths, (36) 2018: 482-491

ADVANCED RARE EARTH MATERIALS

- 492 Solid-state reaction synthesis and chemical stability studies in Nd-doped zirconolite-rich ceramics

Dan Yin, Kuibao Zhang, Le Peng,
Zongsheng He, Yuan Liu, Haibin Zhang,
Xirui Lu



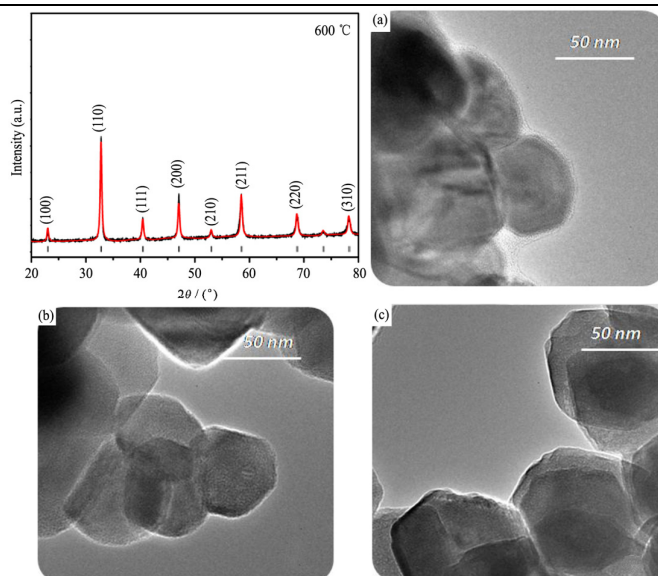
XRD patterns of Nd-doped samples with $x=0-0.3$

Nd-doped zirconolite-rich ceramics were prepared by the solid-state reactions. Three major phases, namely zirconolite, perovskite and pseudobrookite, were observed in all these samples. Structural transition from monoclinic ($2\text{M-CaZrTi}_2\text{O}_7$) to trigonal ($3\text{T-CaZrTi}_2\text{O}_7$) happens when the Nd_2O_3 doping content is 7.41 wt%–10.95 wt%. In addition, the trace of Nd_2O_3 was not detected in all these samples, suggesting that Nd_2O_3 was successfully immobilized into the lattice structure as solid solution. The peaks of zirconolite gradually shift to the lower angle with the increase of Nd_2O_3 content. In accordance to Scherrer equation, it is reasonable to deduce that the change of average ionic radius leads to the increment of lattice constant

J. Rare Earths, (36) 2018: 492-498

- 499 Perovskite type lanthanum manganite:
Morpho-structural analysis and electrical
investigations

Paula Sfirloaga, Maria Poienar,
Iosif Malaescu, Antoanetta Lungu,
Paulina Vlazan



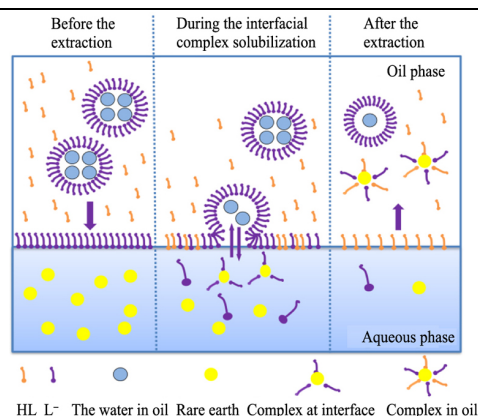
Rietveld refinement for LaMnO_3 heat-treated at 600 °C and TEM image for LaMnO_3 heat-treated at different temperatures: 400 °C (a), 600 °C (b), 800 °C (c)

J. Rare Earths, (36) 2018: 499-504

CHEMISTRY AND HYDROMETALLURGY

- 505 Solubilization behaviors of interfacial
lutetium-extractant complex in a solvent
extraction system

Wenrou Su, Ji Chen, Yu Jing, Chuanying Liu,
Yuefeng Deng, Maohua Yang

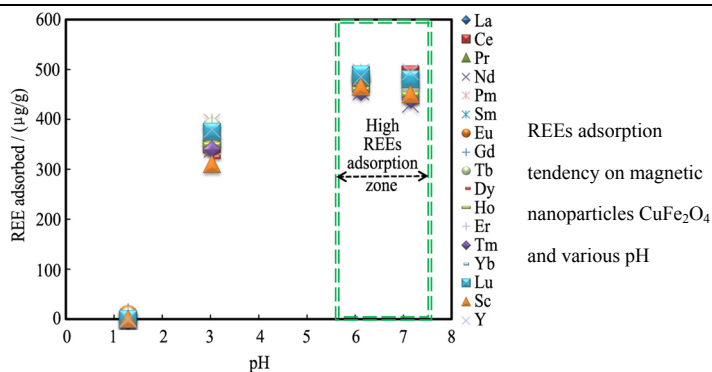


The solubilization of the RE interfacial complex is accompanied with the transfer of solubilized water from microemulsion to aqueous phase

J. Rare Earths, (36) 2018: 505-512

- 513 Rapid recovery of rare earth elements in
industrial wastewater by CuFe_2O_4 synthesized
from Cu sludge

Yao-Jen Tu, Cliff T. Johnston

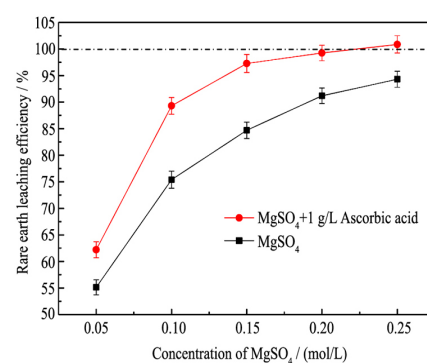


REEs adsorption
tendency on magnetic
nanoparticles CuFe_2O_4
and various pH

J. Rare Earths, (36) 2018: 513-520

- 521 Recovery of rare earths from ion-absorbed
rare earths ore with MgSO_4 -ascorbic acid
compound leaching agent

Fuguo Lai, Li Huang, Guohua Gao,
Run Yang, Yanfei Xiao



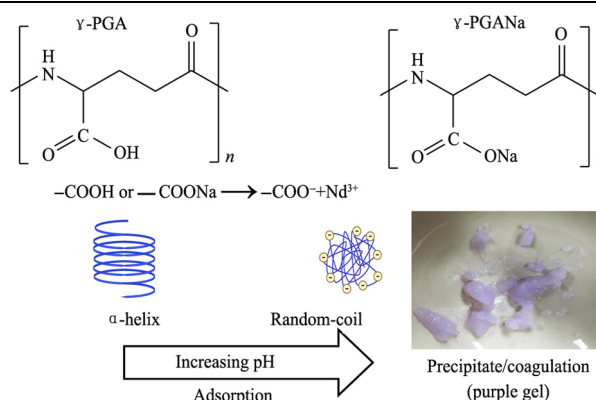
The optimum leaching condition in MgSO_4 -ascorbic acid leaching system led to 107.5% of rare earth leaching efficiency and 5.77% Ce partition in the leaching liquor. The leaching efficiency of colloid sediment phase rare earth was up to 85.7%. This method would reduce the consumption of MgSO_4 and achieve the simultaneous leaching of colloidal sediment phase and ion-exchangeable phase rare earth. It would have great significance to environmental-friendly extraction of ion-adsorption type rare earths ore and the improvement of resource utilization

J. Rare Earths, (36) 2018: 521-527

- 528 Recovery of rare-earth metal neodymium from aqueous solutions by poly- γ -glutamic acid and its sodium salt as biosorbents: Effects of solution pH on neodymium recovery mechanisms

Misaki Hisada, Yoshinori Kawase

J. Rare Earths, (36) 2018: 528-536

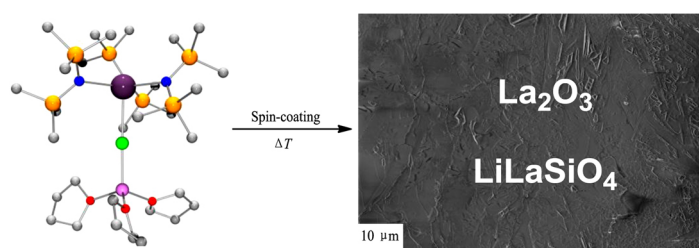


Mechanisms for recovery of rare-earth metal neodymium by poly- γ -glutamic acid and its sodium salt

- 537 Synthesis and thermal behavior of $[\text{Li}(\text{thf})_3(\mu\text{-Cl})\text{La}\{\text{N}(\text{SiMe}_3)_2\}_3]$ and its investigation as spin-coating precursor for lanthanum-based layer formation

Andrea Preu, Elaheh Pousaneh, Julian Noll, Tobias Rüffer, Alexander Jakob, Lutz Mertens, Michael Mehring, Heinrich Lang

J. Rare Earths, (36) 2018: 537-543



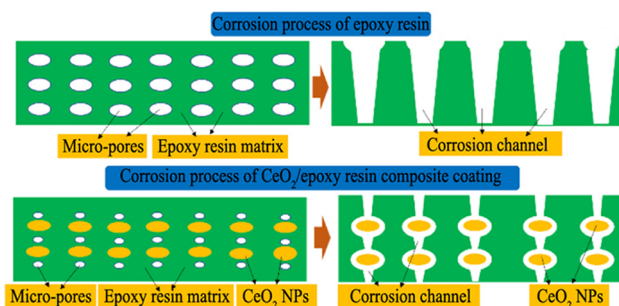
The lanthanum(III) complex $[\text{Li}(\text{thf})_3(\mu\text{-Cl})\text{La}\{\text{N}(\text{SiMe}_3)_2\}_3]$ was synthesized and applied as spin-coating precursor for La_2O_3 thin film formation giving the as-deposited layers nearly crack-free

RARE EARTH APPLICATIONS

- 544 Study on preparation and properties of CeO_2 /epoxy resin composite coating on sintered NdFeB magnet

Pengjie Zhang, Minggang Zhu, Wei Li, Guangqing Xu, Xiulian Huang, Xiaofei Yi, Jingwu Chen, Yucheng Wu

J. Rare Earths, (36) 2018: 544-551



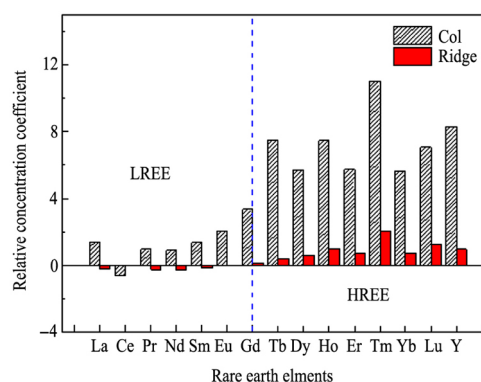
With CeO_2 NPs addition, the porosity of the coating decreases, and the density of CeO_2 /epoxy resin coating is higher than that of blank epoxy resin coatings. And the corrosion channel of the CeO_2 /epoxy resin composite coating is longer and more tortuous than that of epoxy resin coating due to the blocking effect of CeO_2 NPs

GEOLOGY AND ORE DRESSING

- 552 Local concentration of middle and heavy rare earth elements in the col on the weathered crust elution-deposited rare earth ores

Zhenyue Zhang, Ningjie Sun, Zhengyan He, Ru'an Chi

J. Rare Earths, (36) 2018: 552-558



Concentration factor of REEs in different terrain of weathered orebody

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