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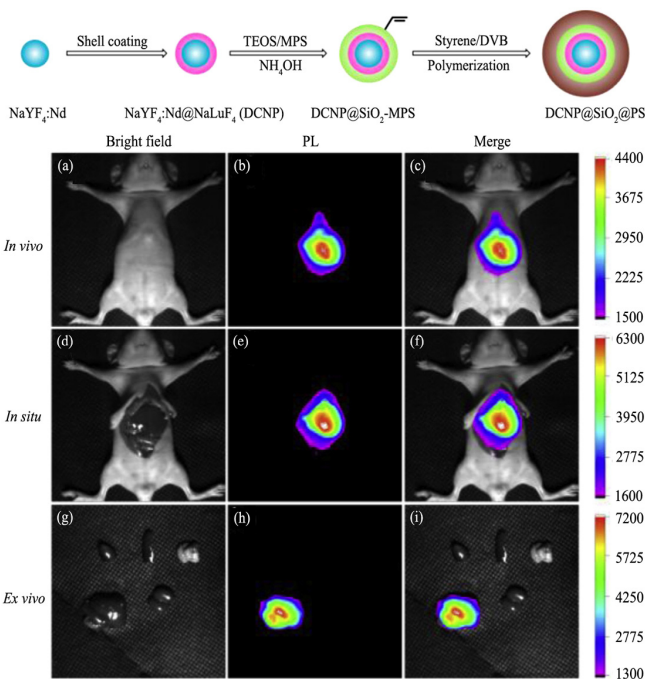
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- Enhancing mineral liberation of a Canadian rare earth ore with microwave pretreatment
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SPECTROSCOPY, LUMINESCENCE AND PHOSPHORS

- 131 Synthesis of $\text{NaYF}_4\text{:Nd@NaLuF}_4\text{:SiO}_2\text{:PS}$ colloids for fluorescence imaging in the second biological window



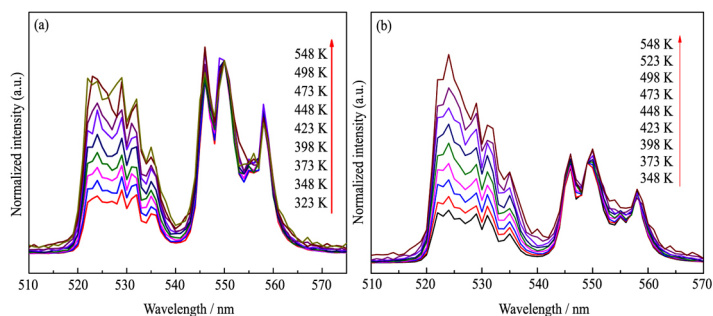
Dongpeng Yang, Cong Cao, Wei Feng,
Chunhui Huang, Fuyou Li

A facile protocol was developed to coat polystyrene on the surface of lanthanide-based near infrared emissive nanoparticles for bioimaging *in vivo*

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- 119 Effect of Li^+ ion concentration on upconversion emission and temperature sensing behavior of $\text{La}_2\text{O}_3\text{:Er}^{3+}$ phosphors

Guangrun Chen, Ruoshan Lei, Shiqing Xu,
Huanping Wang, Shilong Zhao, Feifei Huang,
Yin Tian

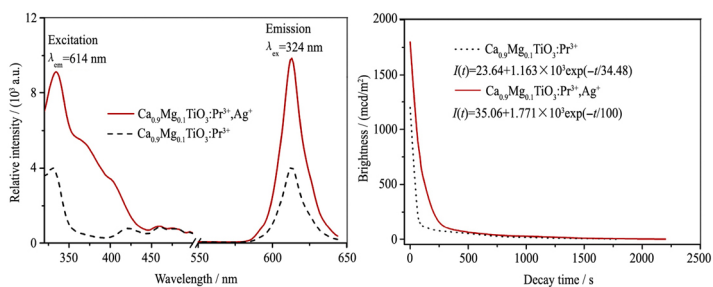


The UC spectra of 0 (a) and 7 mol% Li^+ (b) co-doped $\text{La}_2\text{O}_3\text{:Er}^{3+}$ powders measured at different temperatures

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- 125 Synthesis and characterization of $\text{Ca}_{0.9}\text{Mg}_{0.1}\text{TiO}_3\text{:Pr}^{3+},\text{Ag}^+$ phosphor

Rui Chen, Donghua Chen

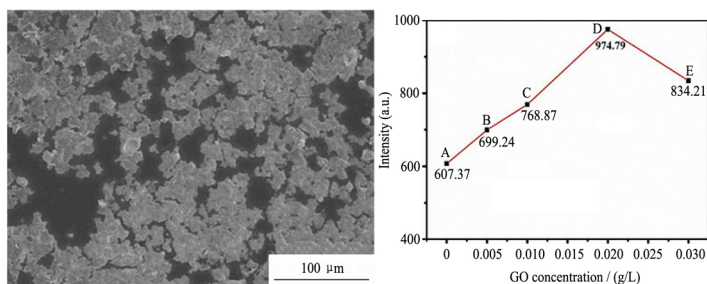


The effect of Ag^+ on the photoluminescence spectra and afterglow decay curves of $\text{Ca}_{0.9}\text{Mg}_{0.1}\text{TiO}_3\text{:Pr}^{3+}$ red phosphor

J. Rare Earths, (36) 2018: 125-129

- 130 Synthesis of high quality Ce:YAG nanopowders by graphene oxide nanosheet-assisted co-precipitation method

Cheng Ji, Qiang Gao, Peng Dai, Liming Shen,
Xiaoyan Zhang, Ningzhong Bao



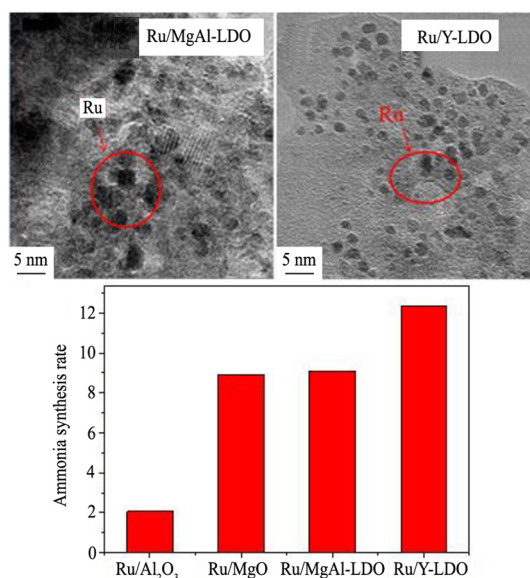
SEM image and PL emission intensity of Ce:YAG nanopowders prepared by graphene oxide nanosheet-assisted co-precipitation method

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RARE EARTH CATALYSIS

- 135 Effect of rare earth on the performance of Ru/MgAl-LDO catalysts for ammonia Synthesis

Jun Ni, Baoqiang Jing, Jianxin Lin, Bingyu Lin, Ziqi Zhao, Lilong Jiang

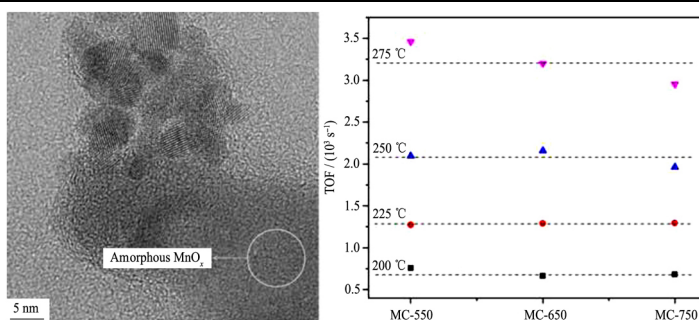


The activity enhanced remarkably for the Ru/MgAl-LDO catalysts doped with different rare earth elements (Y, La, Ce). Y³⁺ could improve strong metal-support interaction by forming more active surface Ru metal and optimum Ru particles sizes. The strong basic sites were responsible for enhancing electron donation ability of ammonia synthesis catalysts. REE doping is an effective way to improve the performance of Ru-based ammonia synthesis catalysts supported on MgAl-LDO

J. Rare Earths, (36) 2018: 135-141

- 142 Active manganese oxide on MnO_x – CeO₂ catalysts for low-temperature NO oxidation: Characterization and kinetics study

Lingkun Meng, Jun Wang, Zhihui Sun,
Jinxin Zhu, Hang Li, Jianqiang Wang,
Meiqing Shen

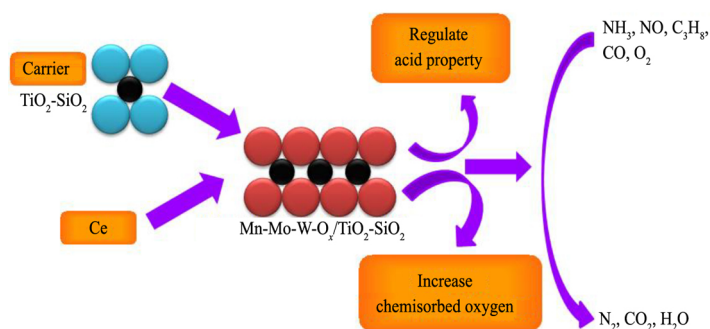


Amorphous MnO_x with high valence manganese ions is the active component for NO oxidation reaction, based on the TOF calculated with initial reducibility by H₂-TPR quantification

J. Rare Earths, (36) 2018: 142-147

- 148 Synergistic catalytic removals of NO, CO and HC over CeO₂ modified Mn-Mo-W-O_x/TiO₂-SiO₂ catalyst

Qijie Jin, Yuesong Shen, Guorong Sui,
Xingjun Tao, Youchun Pan, Shemin Zhu



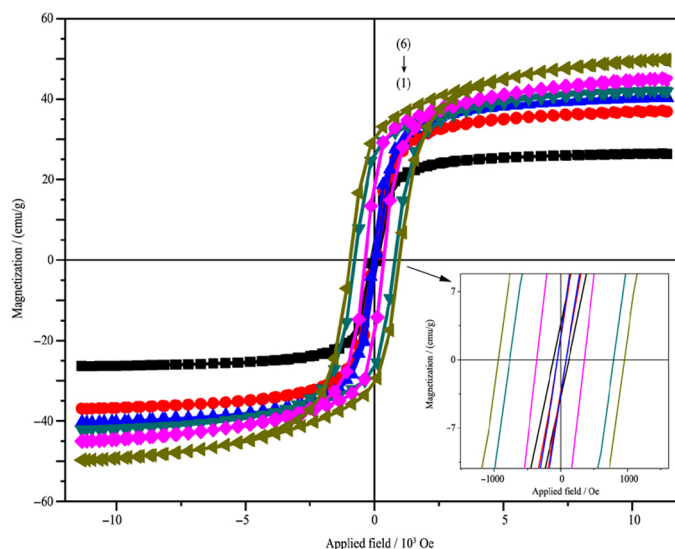
Ce addition increased the concentrations of Mn⁴⁺ and chemisorbed oxygen, and regulated acid property, which was favorable for the excellent catalytic performance

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MAGNETISM AND MAGNETIC MATERIALS

- 156 Systematic study of Ce³⁺ on the structural and magnetic properties of Cu nanosized ferrites for potential applications

Majid Niaz Akhtar, A.B. Sulong, M.N. Akhtar,
Muhammad Azhar Khan

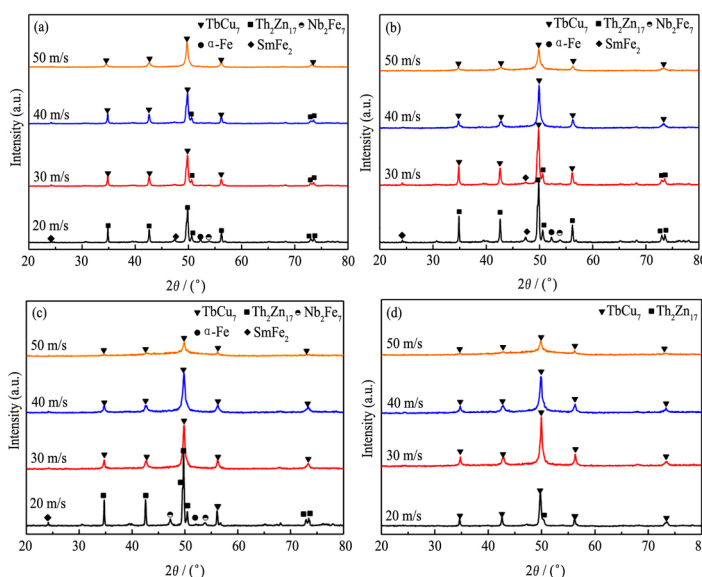


J. Rare Earths, (36) 2018: 156-164

Magnetic hysteresis loops of Ce doped Cu nanoferrites

- 165 Structure and hard magnetic properties of TbCu₇-type SmFe_{8.95-x}Ga_{0.26}Nb_x nitrides

Wenlong Yan, Ningtao Quan, Yang Luo,
Dunbo Yu, Zilong Wang, Guiyong Wu,
Kun Zhang

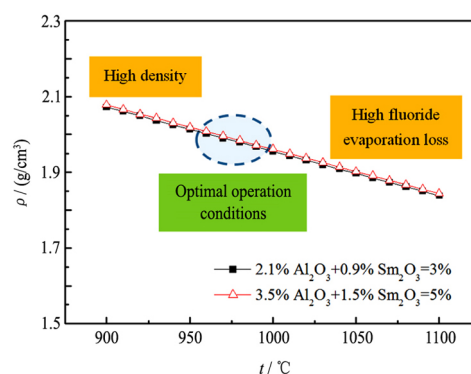


X-ray diffraction patterns of as-annealed SmFe_{8.95-x}Ga_{0.26}Nb_x, x=0 (a), 0.1 (b), 0.2 (c), 0.3 (d) ribbons prepared at various wheel velocities of 20–50 m/s. With the content of Nb increasing, the lowest speed of velocities to obtain single TbCu₇-type structure gradually decreased as shown in Fig. 1. Furthermore, the single TbCu₇-type structure was able to be obtained even though the speed of velocities was 20 m/s with Nb doping at x=0.3, which can be seen from Fig. 1(d)

J. Rare Earths, (36) 2018: 165-169

- 190 Density of $\text{Na}_3\text{AlF}_6 - \text{AlF}_3 - \text{LiF} - \text{MgF}_2 - \text{Al}_2\text{O}_3 - \text{Sm}_2\text{O}_3$ molten salt melt for Al – Sm alloy

Yunfen Jiao, Xu Wang, Chunfa Liao, Jia Su,
Hao Tang, Boqing Cai, Qiangchao Sun



Optimal operation
conditions for Al-Sm
alloy production
($\text{Al}_2\text{O}_3:\text{Sm}_2\text{O}_3=7:3$)

J. Rare Earths, (36) 2018: 190-196

- 197 DFT studies of thermoelectric properties of R – Au intermetallics at 300 K

Sardar Ahmad, Rashid Ahmad,
Muhammad Bilal, Najeeb Ur Rehman

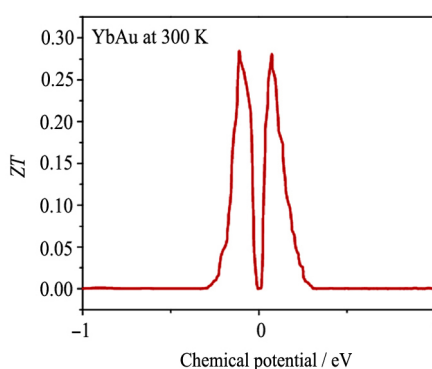


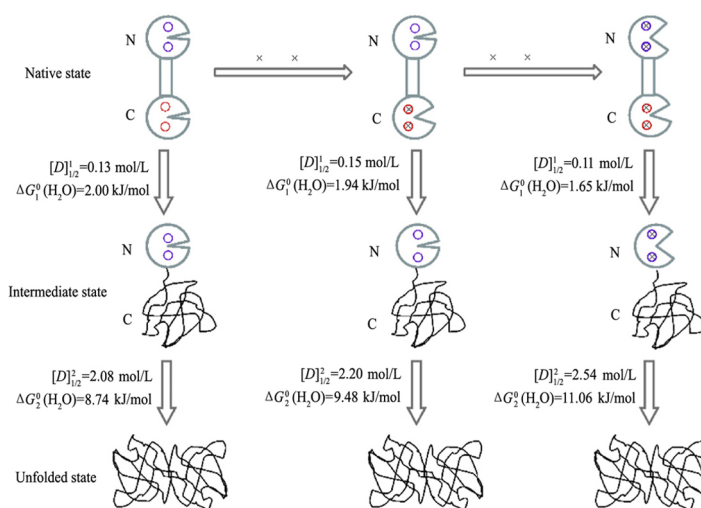
Figure of merit of YbAu at
300 K

J. Rare Earths, (36) 2018: 197-202

RARE EARTH APPLICATIONS

- 203 Effect of Tb(III) on the unfolding of *ciliate* *Euplotes octocarinatus* centrin induced by guanidine hydrochloride

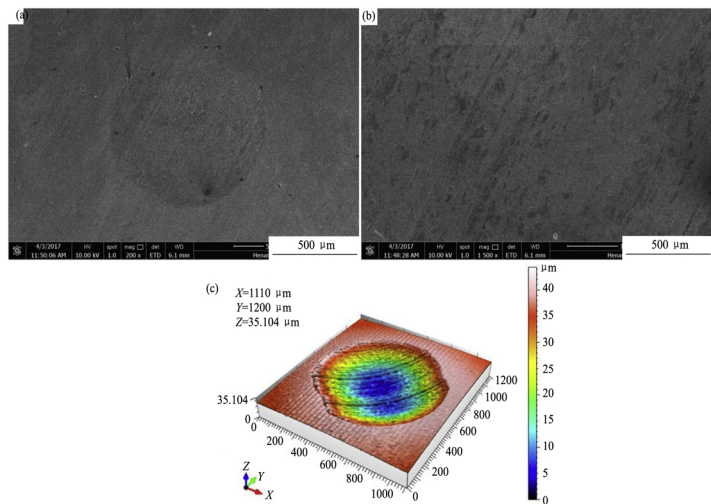
Enxian Shi, Wenlong Zhang, Binsheng Yang



Modes of sequential binding of Tb(III) to EoCen and unfolding process of proteins induced by GdnHCl. The N- and C-terminal domains are shown by two types of circle sectors representing closed and open conformations. The high and low affinity sites for Tb(III) of the EF-hands are shown by red and purple empty circles, respectively. × represents Tb(III) ion. The unfolded state of proteins was shown as disorder shape. Distinct midpoint concentrations and $\Delta G_i^0(\text{H}_2\text{O})$ of two transitions are represented, respectively

J. Rare Earths, (36) 2018: 203-208

209 Tribological properties of nanometer cerium oxide as additives in lithium grease



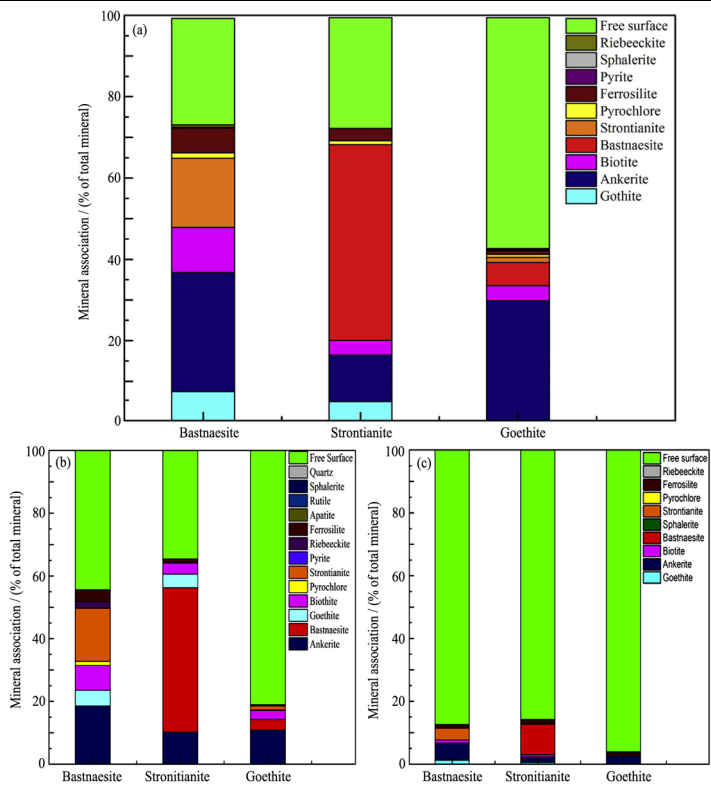
Qiang He, Anling Li, Yachen Guo,
Songfeng Liu, Yong Zhang, Linghao Kong

Under the lubrication of the lithium grease containing 0.6 wt% nano-CeO₂, few shallow furrows can be observed on the quite smoothed surface. It was found that the nano-CeO₂ have been incorporated into the surface protective and lubricious layer by energy dispersive spectrometer (EDS) analysis

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GEOLOGY AND ORE DRESSING

215 Enhancing mineral liberation of a Canadian rare earth ore with microwave pretreatment



Chengbin Zhong, Caili Xu, Renliang Lyu,
Zhenyue Zhang, Xiaoyan Wu, Ru'an Chi

Mineral association for raw ore (a), ore pre-treated with conventional comminution (b) and ore pre-treated with microwave (c)

J. Rare Earths, (36) 2018: 215-224