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- Chemical stability of simulated waste forms Zr_{1-x}Nd_xSiO_{4-x/2}: Influence of temperature, pH and their combined effects
.....WANG Lan, LU Xirui, SHU Xiaoyan, DING Yi, YI Facheng, MA Dengsheng, REN Wei, BIAN Liang, WU Yanlin 709
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ethylhexyl ester (EHEHPA)YE Sishi, JING Yu, WANG Yundong, FEI Weiyang 716

METALLOGRAPHY AND PYROMETALLURGY

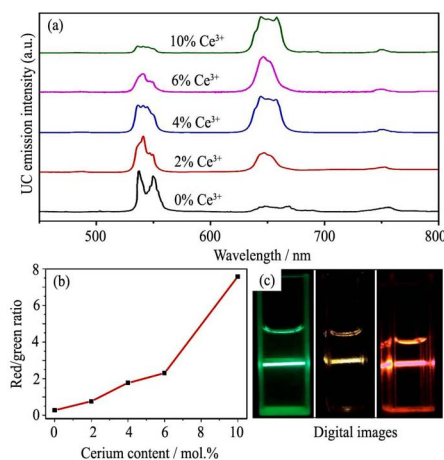
- Using lanthanum to enhance the overall ignition, hardness, tensile and compressive strengths of Mg-0.5Zr alloy
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- 629 Trivalent Yb/Ho/Ce tri-doped core/shell
NaYF₄ nanoparticles for tunable upconversion
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WEI Xiantao, YIN Min, CHEN Yonghu

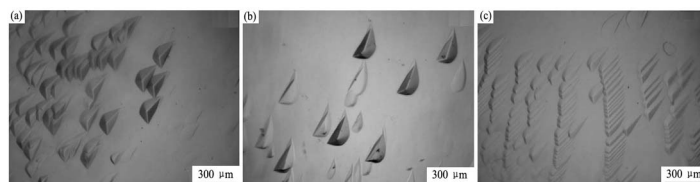


(a) UC emission spectra, (b)
R/G ratio, and (c) the digital
images of colloidal core
NaYF₄:Yb³⁺/Ho³⁺
nanocrystals doped with 0
mol.%, 4 mol.% and 10
mol.% Ce³⁺ under 980 nm
diode laser of 50 W/cm²
successively

J. Rare Earths, (35) 2017: 629-636

- 637 Growth, structural, spectral and high-power
continuous-wave laser operation of
Yb_{0.11}Gd_{0.89}COB crystal

ZHONG Degao, TENG Bing, KONG Weijin,
XUE Dongfeng, SUN Congting, LI Jianhong,
JING Helin, HE Jie, XU Yalin, YANG Liang,
TANG Jie

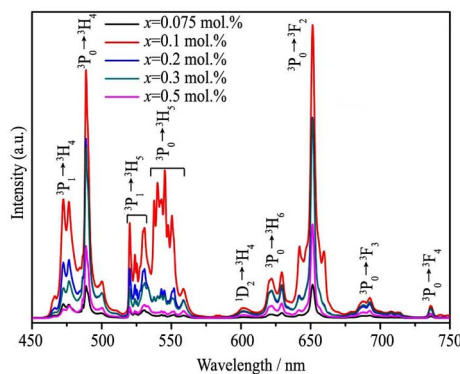


Optical microscope images of etched (010) plane of Yb_{0.11}Gd_{0.89}COB crystal
(a) Cluster of dislocation pits; (b) Single dislocation pits; (c) Array of dislocation pits

J. Rare Earths, (35) 2017: 637-644

- 645 Up-conversion photoluminescence emissions of
CaMoO₄:Pr³⁺/Yb³⁺ powder

LI Jinping, ZHANG Tingting,
ZHU Gangqiang, ZHENG Hairong

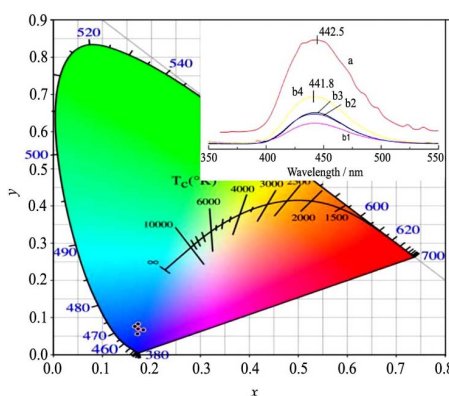


UC emission spectra of
CaMoO₄:xPr³⁺/
16 mol.% Yb³⁺ powder with
different Pr³⁺
concentrations under 980
nm laser excitation

J. Rare Earths, (35) 2017: 645-651

- 652 Structural characterization and optical
properties of long-lasting CaAl₂O₄:Eu²⁺,Nd³⁺
phosphors synthesized by microwave-assisted
chemical co-precipitation

YU Yuan, WANG Jian, WANG Jidong, LI Jing,
ZHU Yanan, LI Xiaoqiang, SONG Xiaolei,
GE Mingqiao



Luminous character to the
light of color as well as
emission spectrum of the
CaAl₂O₄:Eu²⁺,Nd³⁺
phosphors prepared by
MA-CCP and SSR methods

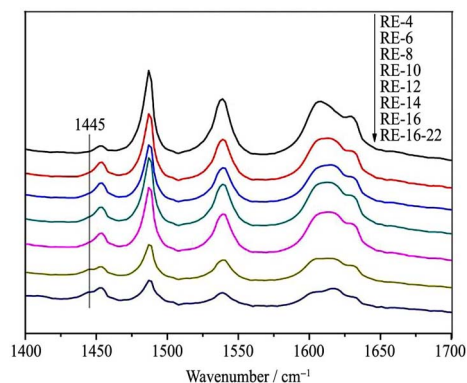
J. Rare Earths, (35) 2017: 652-657

RARE EARTH CATALYSIS

- 658 Investigation on the cation location, structure and performances of rare earth-exchanged Y zeolite

QIU Limei, FU Ying, ZHENG Jinyu,
HUANG Nanguai, LU Lijun, GAO Xiuzhi,
XIN Mudi, LUO Yibin, SHI Yanqiang,
XU Guangtong

J. Rare Earths, (35) 2017: 658-666



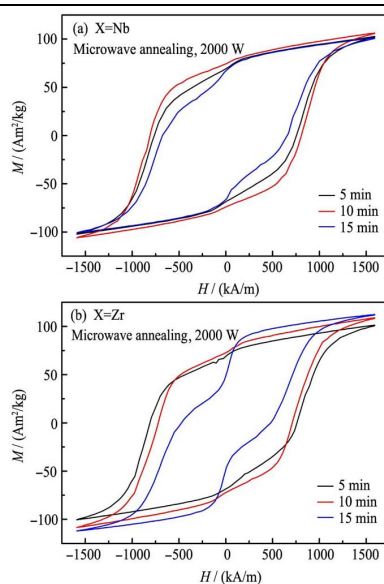
FTIR spectra of pyridine absorption at 350 °C for samples

MAGNETISM AND MAGNETIC MATERIALS

- 667 Differences in the structure and magnetic properties of $(\text{Nd}_{0.75}\text{Pr}_{0.25})_{9.5}\text{Fe}_{76}\text{X}_4\text{B}_{10.5}$ (X=Nb, Zr) ribbons by conventional and microwave-assisted annealing treatment

WANG Tianpeng, WANG Zhanyong,
YANG Wenya, ZHOU Ding, WU Jiaheng,
ZHOU Bing, JIN Minglin, DONG Guangle,
SUI Yanli

J. Rare Earths, (35) 2017: 667-672

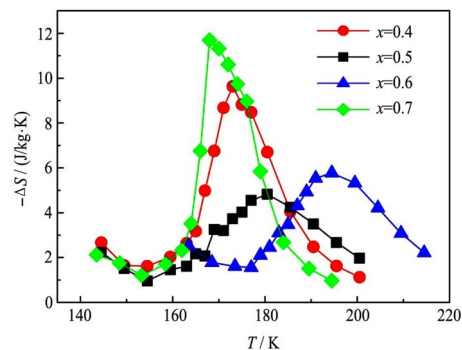


Hysteresis loop curves of the microwave annealed $(\text{Nd}_{0.75}\text{Pr}_{0.25})_{9.5}\text{Fe}_{76}\text{X}_4\text{B}_{10.5}$ (X=Nb, Zr) ribbons for different time
(a) X=Nb; (b) X=Zr

- 673 Effect of proportion change of aluminum and silicon on magnetic entropy change and magnetic properties in $\text{La}_{0.8}\text{Ce}_{0.2}\text{Fe}_{11.5}\text{Al}_{1.5-x}\text{Si}_x$ compounds

FU Bin, HAN Jie, WANG Chaolun

J. Rare Earths, (35) 2017: 673-676



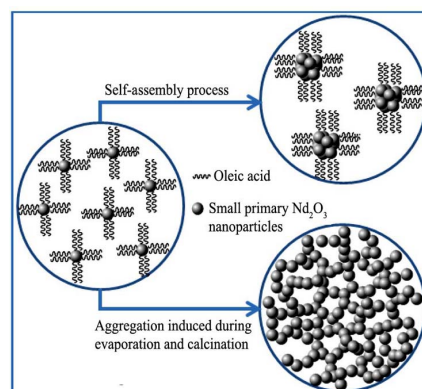
Temperature-dependent magnetic entropy of $\text{La}_{0.8}\text{Ce}_{0.2}\text{Fe}_{11.5}\text{Al}_{1.5-x}\text{Si}_x$ ($x=0.4, 0.5, 0.6, 0.7$) compounds as static magnetic field varies from 0 to 2 T

ADVANCED RARE EARTH MATERIALS

- 677 A novel approach for synthesis of hierarchical mesoporous Nd_2O_3 nanomaterials

Le Huu Trinh, Dinh Quang Khieu,
Hoang Thai Long, Tran Thai Hoa,
Duong Tuan Quang, Nguyen Duc Cuong

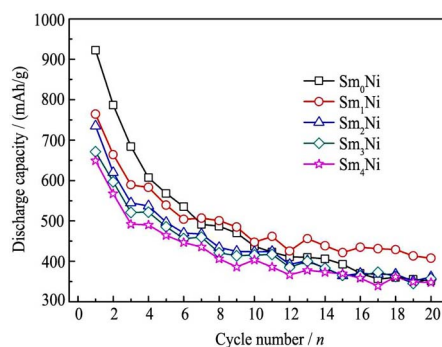
J. Rare Earths, (35) 2017: 677-682



Scheme of the formation mechanism of hierarchical Nd_2O_3 nanostructures

- 683 Electrochemical performance of $\text{La}_{2-x}\text{Sm}_x\text{Mg}_{16}\text{Ni}+200 \text{ wt.}\% \text{ Ni}$ ($x=0, 0.1, 0.2, 0.3, 0.4$) alloys

FENG Dianchen, WANG Xitao,
ZHANG Yanghuan

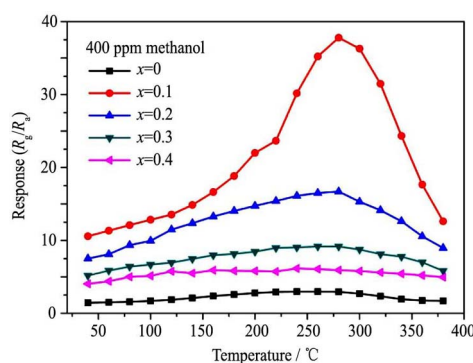


Discharge capacity of the as-milled alloy Sm_xNi electrode composites

J. Rare Earths, (35) 2017: 683-689

- 690 Nanocrystalline $\text{Gd}_{1-x}\text{Ca}_x\text{FeO}_3$ sensors for detection of methanol gas

WANG Xiaofeng, MA Wei, SUN Kaiming,
HU Jifan, QIN Hongwei



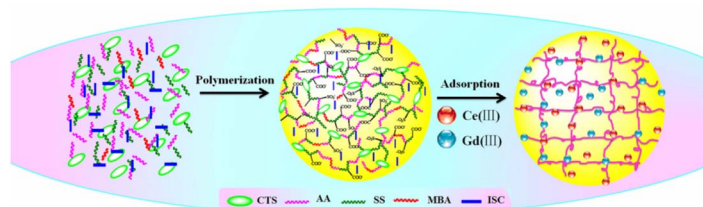
Temperature dependence of response for $\text{Gd}_{1-x}\text{Ca}_x\text{FeO}_3$ sensors to 400 ppm methanol

J. Rare Earths, (35) 2017: 690-696

CHEMISTRY AND HYDROMETALLURGY

- 697 Evaluation of Ce(III) and Gd(III) adsorption from aqueous solution using CTS-g-(AA-co-SS)/ISC hybrid hydrogel adsorbent

WANG Feng, WANG Wenbo, ZHU Yongfeng,
WANG Aiqin

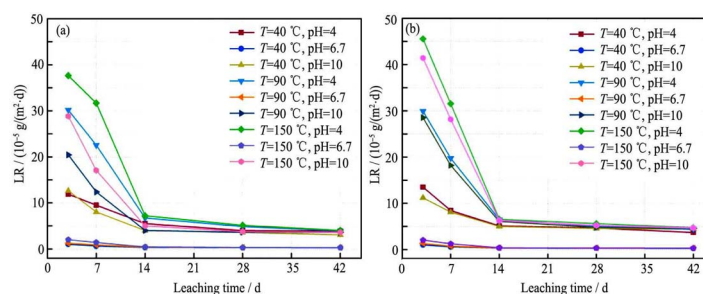


Granular hydrogel adsorbent with the maximum adsorption capacity of 174.05 mg/g for Ce(III) and 223.79 mg/g for Gd(III) was prepared by a one-step green solution polymerization

J. Rare Earths, (35) 2017: 697-708

- 709 Chemical stability of simulated waste forms $\text{Zr}_{1-x}\text{Nd}_x\text{SiO}_{4-x/2}$: Influence of temperature, pH and their combined effects

WANG Lan, LU Xirui, SHU Xiaoyan,
DING Yi, YI Facheng, MA Dengsheng,
REN Wei, BIAN Liang, WU Yanlin

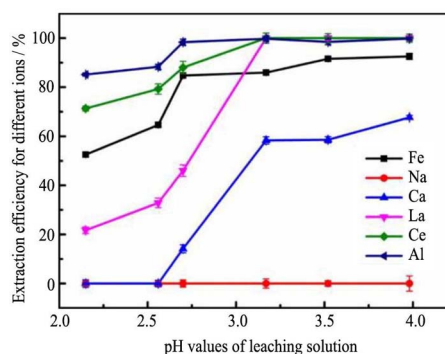


Normalized release rate of Nd in $\text{Zr}_{1-x}\text{Nd}_x\text{SiO}_{4-x/2}$ compounds in all discussed conditions (a) $x=0.01$; (b) $x=0.04$

J. Rare Earths, (35) 2017: 709-715

- 716 Recovery of rare earths from spent FCC catalysts by solvent extraction using saponified 2-ethylhexyl phosphoric acid-2-ethylhexyl ester (EHEHPA)

YE Sishi, JING Yu, WANG Yundong,
FEI Weiyang



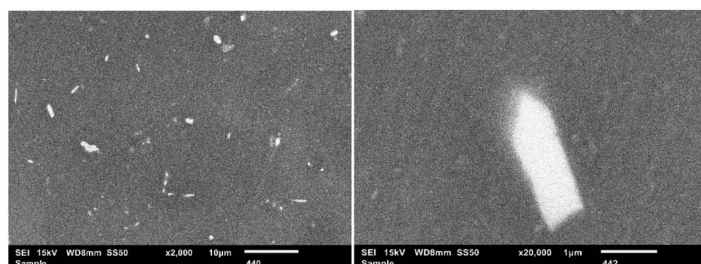
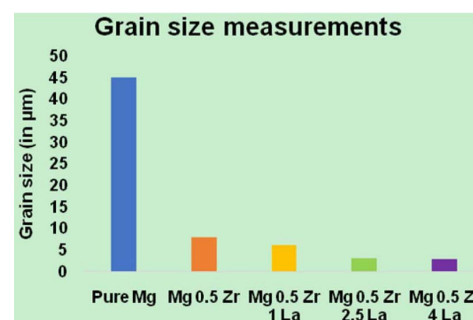
Effect of leaching solution pH values on extraction efficiency for different ions

J. Rare Earths, (35) 2017: 716-722

METALLOGRAPHY AND PYROMETALLURGY

- 723 Using lanthanum to enhance the overall ignition, hardness, tensile and compressive strengths of Mg-0.5Zr alloy

Ganesh Kumar Meenashisundaram,
Tiong Hou Damien Ong, Gururaj Parande,
Vyasaraj Manakari, Xiang Shulin, Manoj Gupta



- (1) Significant reduction in grain size and increased tensile and compressive strengths were achieved with addition of 0.5 wt.% Zr and up to 4 wt.% La to Mg.
- (2) Zr formed needle shaped particulates (<10 μm) and were well distributed within the Mg matrix.

J. Rare Earths, (35) 2017: 723-732