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万方数据



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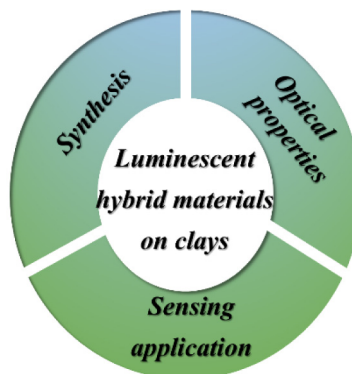
- Microstructure characteristics of 12Cr ferritic/martensitic steels with various yttrium additions
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- The glucosinolate regulation in plant: A new view on lanthanum stimulating the growth of plant
.....Qing Yang, Lihong Wang, Li Zhou, Zhenbiao Yang, Qing Zhou, Xiaohua Huang 555

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INVITED REVIEW

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Yige Wang, Peng Li, Shufang Wang,
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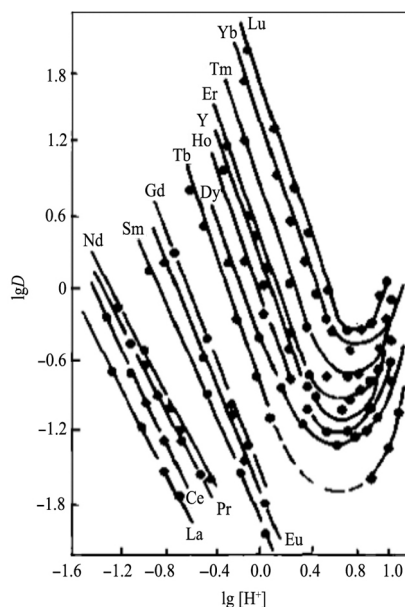


This feature article summarizes the latest developments in the design and preparation of highly luminescent organic-inorganic hybrid materials with excellent aqueous processability based on lanthanide complexes and the synthetic clays

J. Rare Earths, (37) 2019: 451-467

- 468 Development course of separating rare earths with acid phosphorus extractants: A critical review

Deqian Li



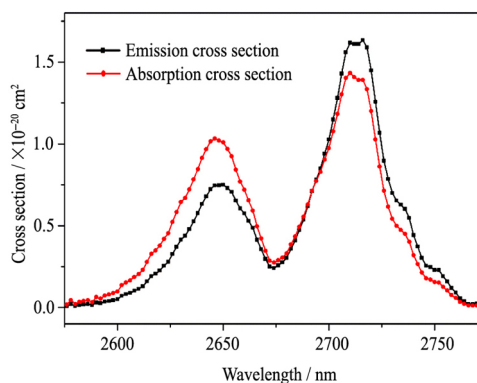
Relationship between $\lg D$ and $\lg[H^+]$. The distribution curves of REs extracted with P507 in HNO_3 solutions of different concentrations are shown. It can be seen that, with the increase of the equilibrium aqueous phase $[H^+]$, distribution ratio D of REs rapidly decreased to a minimum value. When $[H^+]$ continued to increase, all of the heavy REs (including Y) increased with the increase of $[H^+]$, but light REs (La–Gd) were basically not extracted under test conditions

J. Rare Earths, (37) 2019: 468-486

SPECTROSCOPY, LUMINESCENCE AND PHOSPHORS

- 487 Efficient improvement of 2.7 μm luminescence of Er^{3+} : oxyfluoride glass containing gallium by Yb^{3+} ions codoping

Yapei Peng, Xinqiang Yuan, Long Zhang,
Peiguang Yan, Wenfei Zhang,
Shuangchen Ruan



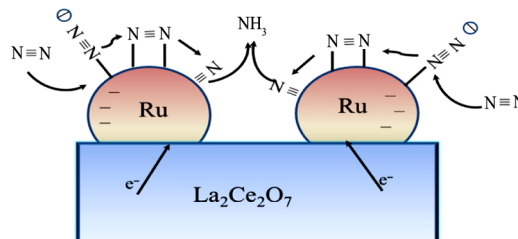
Absorption and emission cross sections of $YbFGa-0.5$ glass

J. Rare Earths, (37) 2019: 487-491

RARE EARTH CATALYSIS

- 492 $\text{La}_2\text{Ce}_2\text{O}_7$ supported ruthenium as a robust catalyst for ammonia synthesis

Wenfeng Han, Zhi Li, Huazhang Liu

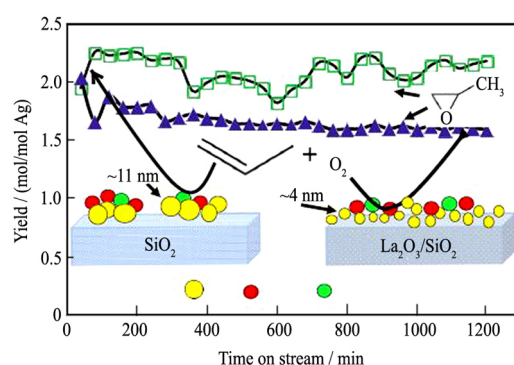


In the absence of any promotor, ammonia concentration of $\text{Ru}/\text{La}_2\text{Ce}_2\text{O}_7$ catalyst approaches 14% at 450 °C, GHSV of 10000 h^{-1} and pressure of 10 MPa. The rate-determining step of ammonia synthesis, dissociation of N_2 is significantly facilitated by the strong metal-support interaction (SMSI) between Ru and $\text{La}_2\text{Ce}_2\text{O}_7$. Due to the interaction, $\text{La}_2\text{Ce}_2\text{O}_7$ tends to donate electrons to Ru resulting in the high electron density over the surface of Ru active sites which is favorable for the dissociation of N_2

J. Rare Earths, (37) 2019: 492-499

- 500 Can lanthanum doping enhance catalytic performance of silver in direct propylene epoxidation over $\text{NaMoAg}/\text{SiO}_2$?

Hany M. Abdel Dayem, Shar S. Al-Shihry, Salah A. Hassan



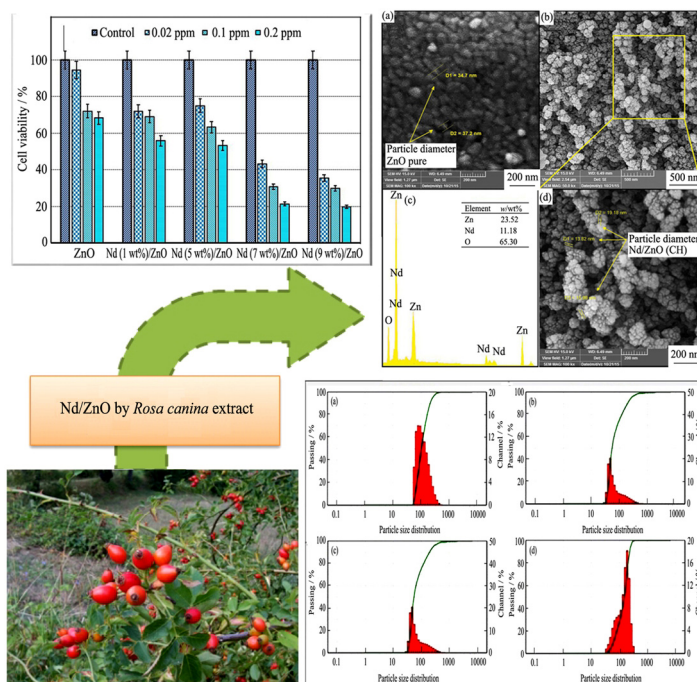
La^{3+} promoted direct epoxidation of propylene over $\text{NaAgMo}/\text{LaSiO}_2$ catalyst and increased catalyst stability during 20 h. The addition of La increased interaction between Ag and SiO_2 surface and led to the formation of selective subnanometer Ag sites to propylene oxide

J. Rare Earths, (37) 2019: 500-507

ADVANCED RARE EARTH MATERIALS

- 508 Systematic study of Nd^{3+} on structural properties of ZnO nanocomposite for biomedical applications; *in-vitro* biocompatibility, bioactivity, photoluminescence and antioxidant properties

Saeed Jafarirad, Maryam Salmasi, Baharak Divband, Mohammadhassan Sarabchi

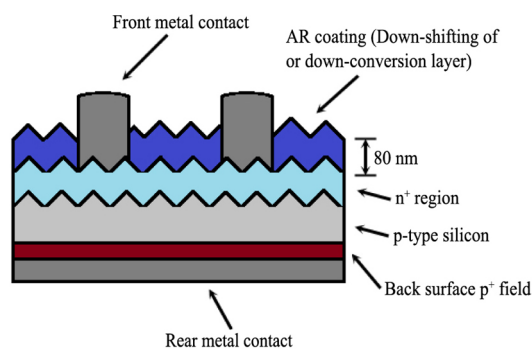


Nd/ZnO nanocomposite for biomedical applications

J. Rare Earths, (37) 2019: 508-514

- 515 Monolithic crystalline silicon solar cells with SiN_x layers doped with Tb^{3+} and Yb^{3+} rare-earth ions

Ing-Song Yu, Shao-Chun Wu, Lucile Dumont,
Julien Cardin, Christophe Labbé,
Fabrice Gourbilleau



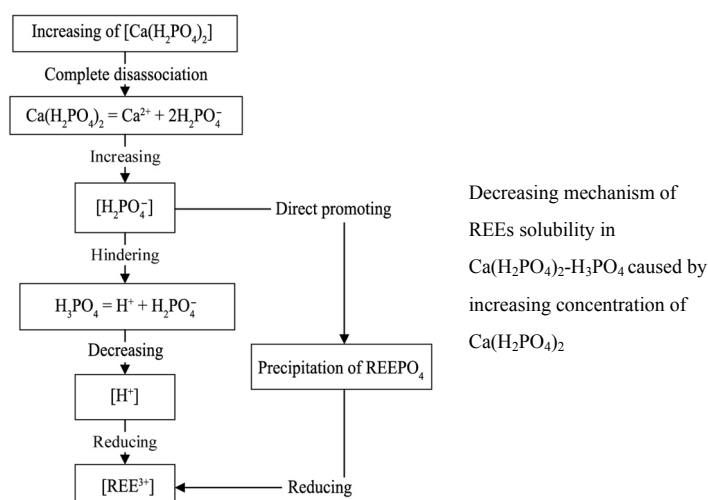
The efficiency of c-Si solar cells was enhanced by monolithic c-Si solar cells with down-shifting and down-conversion layers: Tb^{3+} doped SiN_x and Tb^{3+} - Yb^{3+} codoped SiN_x thin films. These films play both the role as anti-reflection coating and spectrum conversion layers

J. Rare Earths, (37) 2019: 515-519

CHEMISTRY AND HYDROMETALLURGY

- 520 Precipitation-dissolution behaviors of rare earth ions in H_3PO_4 - $\text{Ca}(\text{H}_2\text{PO}_4)_2$ solutions

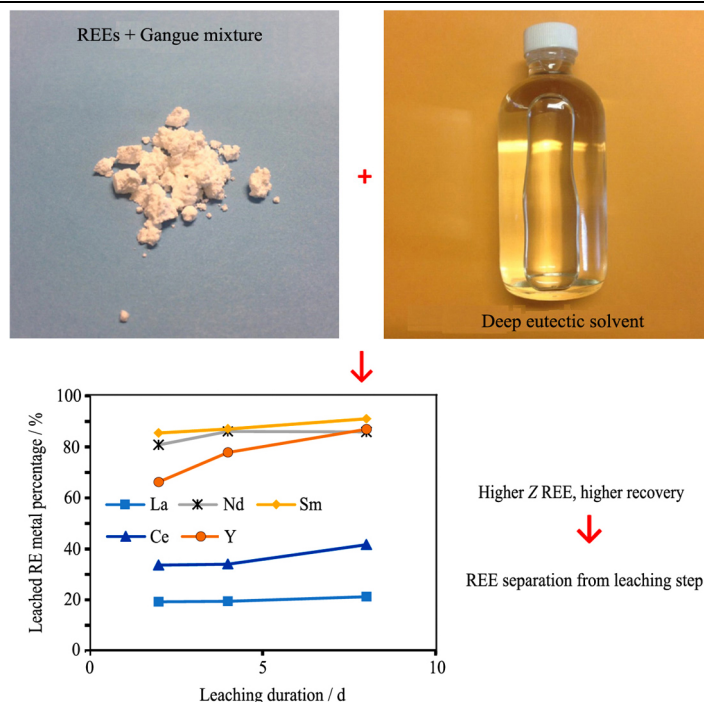
Shengxi Wu, Longsheng Zhao,
Liangshi Wang, Xiaowei Huang,
Yunhan Zhang, Zongyu Feng, Dali Cui



J. Rare Earths, (37) 2019: 520-527

- 528 Selective dissolution of rare-earth element carbonates in deep eutectic solvents

Ali Entezari-Zarandi, Faïçal Larachi



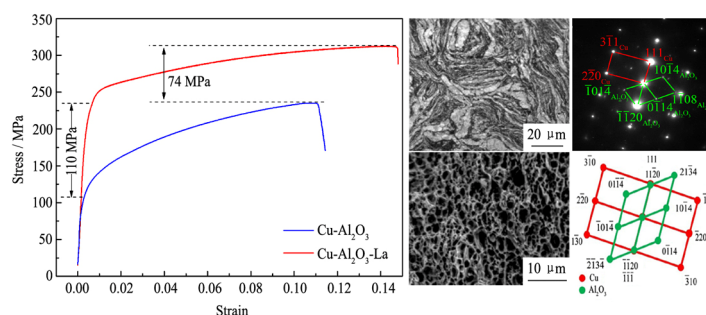
Rare earth carbonates dissolved in various deep eutectic solvents (DES). DES selectivity achieved over dissolution of heavier REEs. Presence of carbonate gangue mineral promotes dissolution of more REEs. DES-based leaching systems may open new ways to REE selective leaching separation

J. Rare Earths, (37) 2019: 528-533

- 534 Influence of lanthanum on enhancement of mechanical and electrical properties of Cu-Al₂O₃ composites

Yifan Zhang, Zhen Ji, Chengchang Jia,
Guimin Liu, Farong Wan, Qian Zhan

J. Rare Earths, (37) 2019: 534-540

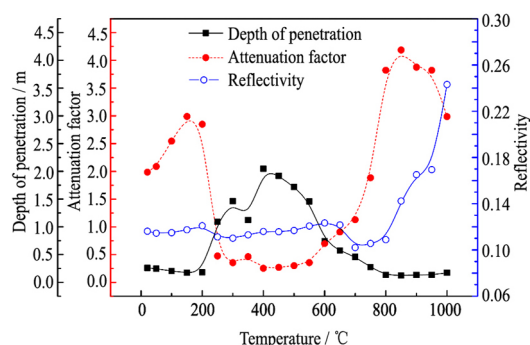


With appropriate amount addition of La, the distribution of Al₂O₃ particles in Cu matrix became more homogeneous and some semi-coherent interface between Cu and Al₂O₃ is found. This uniform distribution improves UTS, yield strength and elongation of Cu-Al₂O₃ composite. Cu grain shape changes to irregular banded, this change results in the density decrease of grain boundary and reduced electrical resistance

- 541 Microwave strengthens decomposition of mixed rare earth concentrate: Microwave absorption characteristics

Yukun Huang, Ting'an Zhang, Zhihe Dou,
Guozhi Lv, Guihong Han, Weijun Peng

J. Rare Earths, (37) 2019: 541-546



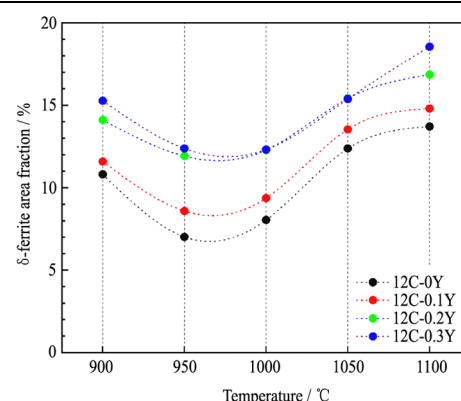
Curves of depth of penetration, loss factor and reflectivity with the increasing temperature

RARE EARTH APPLICATIONS

- 547 Microstructure characteristics of 12Cr ferritic/martensitic steels with various yttrium additions

Yingxue Chen, Feifei Zhang, Qingzhi Yan,
Xiaoxin Zhang, Zhiyuan Hong

J. Rare Earths, (37) 2019: 547-554

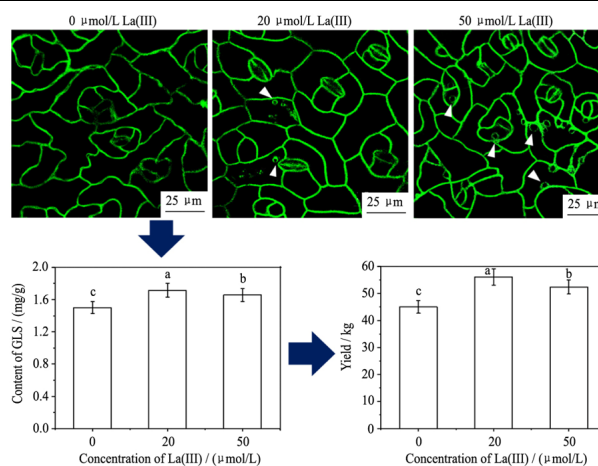


Area fraction variations of δ -ferrite as a function of austenitizing temperature for 12Cr-0Y, 12Cr-0.1Y, 12Cr-0.2Y, 12Cr-0.3Y specimens

- 555 The glucosinolate regulation in plant: A new view on lanthanum stimulating the growth of plant

Qing Yang, Lihong Wang, Li Zhou,
Zhenbiao Yang, Qing Zhou, Xiaohua Huang

J. Rare Earths, (37) 2019: 555-564



After low-concentration lanthanum(III) terminates the natural endocytic inertia of plant leaves, plant upregulates the content of glucosinolates (the marker of plant resisting harmful effects) to promote plant growth for resisting the harmful effects of low-concentration lanthanum(III)