

**Minerals Information** 

Home / Commodity / Country / State / Products / Contacts /

MI Home > Commodity > Rare Earths

# **Rare Earths Statistics and Information**

(cerium, dysprosium, erbium, europium, gadolinium, holmium, lanthanum, lutetium, neodymium, praseodymium, samarium, terbium, thulium, ytterbium, yttrium, ferrocerium, monazite, bastnasite, mischmetal)

Publications	<u>Contacts</u>	<u>Subscribe</u>
--------------	-----------------	------------------

The principal economic sources of rare earths are the minerals bastnasite, monazite, and loparite and the lateritic ion-adsorption clays (table 2). The rare earths are a relatively abundant group of 17 elements composed of scandium, yttrium, and the lanthanides. The elements range in crustal abundance from cerium, the 25th most abundant element of the 78 common elements in the Earth's crust at 60 parts per million, to thulium and lutetium, the least abundant rare-earth elements at about 0.5 part per million. The elemental forms of rare earths are iron gray to silvery lustrous metals that are typically soft, malleable, and ductile and usually reactive, especially at elevated temperatures or when finely divided. The rare earths' unique properties are used in a wide variety of applications.

# Publications

If you are interested in receiving an email notice when a publication is added to this page, please refer to <u>Minerals Information List Services</u>.

(To view or print a document in PDF format, download the free Adobe Acrobat Reader.)

#### **Annual Publications**

#### Mineral Commodity Summaries

Rare Earths PDF Format: | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |2012 |2013 |
Yttrium PDF Format: | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |2013 |
Appendixes

#### Minerals Yearbook

- Rare Earths
  - PDF Format:

| <u>1994</u> | <u>1995</u> | <u>1996</u> | <u>1997</u> | <u>1998</u> | <u>1999</u> | <u>2000</u> | <u>2001</u> | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | XLS Format:

- | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> |
- Archive
  - | <u>1932-1993</u> |

## **Special Publications**

- <u>China's Rare-Earth Industry</u> Open-File Report 2011-1042
- Factors that Influence the Price of Al, Cd, Co, Cu, Fe, Ni, Pb, Rare Earth Elements, and Zn
  - Open-File Report 2008-1356
- Global Rare Earth Oxide (REO) Production Trends (PDF)
- <u>Historical Statistics for Mineral and Material Commodities in the United States</u> Data Series 140
  - Rare Earths
- <u>Metal Prices in the United States through 2010</u> Scientific Investigations Report 2012-5188
- Potential for recovery of cerium contained in automotive catalytic converters Open-File Report 2013-1037
- Principal Rare Earth Elements Deposits of the United States—A Summary of Domestic Deposits and a Global Perspective Scientific Investigations Report 2010–5220
- <u>Rare Earth Elements—Critical Resources for High Technology</u> FS-087-02
- <u>Rare Earth Elements—End Use and Recyclability</u> Scientific Investigations Report 2011-5094
- <u>Rare earth element mines, deposits, and occurrences</u> Open-File Report 02-189
- <u>Statistical Compendium</u> • <u>Rare Earths</u>

# Contact

## • USGS Mineral Commodity Specialist

Joseph Gambogi Phone: 703-648-7718 Fax: 703-648-7975 Email: jgambogi@usgs.gov

If needed, file viewers can be obtained through these links: Excel Viewer | PDF Reader | Word Viewer

Mineral Eastern / Central / Western / Alaska / Minerals Information

**Resources** Crustal Geophysics and Geochemistry / Spatial Data

U.S. Department of the Interior | U.S. Geological Survey URL: http://minerals.usgs.gov/minerals/pubs/commodity/rare\_earths/index.html Page Maintained By: <u>rcallaghan@usgs.gov</u> Page Last Modified: Monday, 11-Mar-2013 12:40:44 EDT