

Chave de resposta

Considere o texto para responder as questões que seguem:

The rare earth elements (REE) are a set of seventeen metallic elements. These include the fifteen lanthanides on the periodic table plus scandium and yttrium.

Rare earth elements are an essential part of many high-tech devices. The U.S. Geological Survey news release "Going Critical" explains:

"Rare-earth elements (REE) are necessary components of more than 200 products across a wide range of applications, especially high-tech consumer products, such as cellular telephones, computer hard drives, electric and hybrid vehicles, and flat-screen monitors and televisions. Significant defense applications include electronic displays, guidance systems, lasers, and radar and sonar systems. Although the amount of REE used in a product may not be a significant part of that product by weight, value, or volume, the REE can be necessary for the device to function. For example, magnets made of REE often represent only a small fraction of the total weight, but without them, the spindle motors and voice coils of desktops and laptops would not be possible.

In 1993, 38 percent of world production of REEs was in China, 33 percent was in the United States, 12 percent was in Australia, and five percent each was in Malaysia and India. Several other countries, including Brazil, Canada, South Africa, Sri Lanka, and Thailand, made up the remainder. However, in 2008, China accounted for more than 90 percent of world production of REEs, and by 2011, China accounted for 97 percent of world production. Beginning in 1990 and beyond, supplies of REEs became an issue as the Government of China began to change the amount of the REEs that it allows to be produced and exported. The Chinese Government also began to limit the number of Chinese and Sino-foreign joint-venture companies that could export REEs from China."

Texto retirado da fonte: <https://www.americangeosciences.org/critical-issues/faq/what-are-rare-earth-elements-and-why-are-they-important> (acesso em 22/11/2021)

1. This passage is mostly about:
 - (a) The Periodic Table of the Elements
 - (b) The family of the elements known as alkali metal
 - (c) The rare-earth metals
 - (d) The properties and application of the alkaline earth metals
2. According to the text, the REEs are especially found

- (a) in food packaging
 - (b) in electronic products
 - (c) in smart clothes
 - (d) in building materials
3. Scandium and yttrium are
- (a) lanthanides
 - (b) Noble gases
 - (c) REEs
 - (d) Minerals
4. About the use of REE in a high-tech product, it is correct:
- (a) The amount of REEs is always significant part of the product by weight
 - (b) The REEs are not necessary for the product to function
 - (c) The use of REE in magnets always represent the greatest fraction of the total weight
 - (d) The REEs make possible the spindle motors and voice coils of desktops and laptops
5. Read the following sentence “For example, magnets made of REE often represent only a small fraction of the total weight...”
- The word “often” has the following meaning, except:
- (a) frequently
 - (b) many times
 - (c) commonly
 - (d) rarely
6. Read the following sentence “However, in 2008, China accounted for more than 90 percent of world production of REEs ...”
- The word “However” can be replaced with:
- (a) Therefore
 - (b) Nevertheless
 - (c) On the other hand
 - (d) In spite
7. About the world production of REEs, it is correct, except:
- (a) At the beginning of the 1990’s, the United States were one of the main producers of REEs
 - (b) Australia was never a world producer of RREs

- (c) In 2011, China was responsible for almost all world production of REEs
 - (d) Brazil, Canada and South Africa were some countries which contribute with the world production of REEs in 1993.
8. In the last three decades, the supplies of REEs became a problem because
- (a) the reserves of rare earth elements ran out
 - (b) the prices of rare earth elements reached unreasonable values
 - (c) Chinese and Sino-foreign joint-venture companies started to import REEs from China
 - (d) Chinese Government changed the policies of production and export of REEs