



February 6, 2011

Many Want Rare Earths, but Few Are Mining Them

By KARL RUSSELL

"RARE earth" is a historical misnomer. Elements that fall under this label were identified mostly in the 18th and 19th centuries, when the word "earths" was used to describe a group of geological materials. At the time, a subset of these was thought to be uncommon.

In fact, rare earths are relatively abundant. But they are very hard to extract, and processing them can cause environmental damage. The process involves toxic acids, and rare earths are often found in deposits containing the radioactive elements uranium and thorium.

The first color television included rare earths. Recently, demand for them has become more acute, as they have been used to make an array of high-tech products including smartphones, hybrid cars, flat-panel televisions, wind turbines and military weapons.

China has almost total dominance of the rare earth market, and concerned businesses and governments are pushing for expanded production in other countries. But it can take years to increase mining in Western nations, where there are many environmental and regulatory hurdles.