



## **Rare Earth appears as main raw material for the technological market**

Metals previously little known, the 17 chemical elements comprising the group of rare Earth now appear as one of the great bets in the worldwide economy. Very much used in the top technology area, such elements of complex extraction are also focus of interest to countries intending to export what can be considered the “XXI Century Gold”.

In the 14th Brazilian Mining Congress, the Associate Professor of Escola Politécnica of USP and the Innovation Director of the Technological Research Institute, Fernando Landgraf, said that Brazil, up to few years ago, was not considered a potential exploiter of rare earths. However, with a new mapping of the Earths, published in 2010, it became evident that only in Catalão (GO) the rare Earths reserves achieve 120 million tons. “In addition to the production of super magnets, such metals may be used as Eolic power generators, motor components for hybrid and electric vehicles, in addition to part of the computer hard disks”, he says.

Other recent discovery in Brazilian land was a large Thallium mine in Barreiras (BA). The mine is the sole known worldwide occurrence associating Manganese, Cobalt and Thallium in continental geological environment. “This is also the sole known mine worldwide where one can consider Thallium as the element of higher economic interest, since it remained indifferent to the 2009 crisis, keeping always a high quotation trend”, said the Technical Director of Itaoeste, Vladimir Aps.

One of the higher applications of Thallium is medical, where it is considered a radiopharmaceutical product of the best quality, used as contrast to generate cardiovascular images. Additionally, it is also a thermoelectric material and superconductor at high temperatures. “Our days, it is only produced worldwide in Kazakhstan and China, and China has currently reduced the exports and became Thallium importer. Therefore, as competition, only Kazakhstan was left”, he said.

<http://www.mla.com.br/2010/br/clipping/0501201215252701.jpg>