

Supply problems spark search for new ways to make magnets—not the 'fridge' variety

January 9 2013

Mention magnets, and most people think of trivial applications of those pieces of metal, like holding family photos and reminder notes on the refrigerator. An article on magnets in the current edition of *Chemical & Engineering News* (C&EN), however, focuses on the critical role magnets play in the real world and the search for new materials to make them. C&EN is the weekly newsmagazine of the American Chemical Society, the world's largest scientific society.

In the article, C&EN Senior Correspondent Mitch Jacoby explains that magnets are crucial to an enormous number of products in the automobile, electronics, power-generation and clean energy industries. Those applications rely on advanced magnets made from rare-earth metals, which make the magnets much smaller and lighter than those made of other [materials](#). But worldwide, it has been difficult to secure the supply of rare-earth metals that are used to make these powerful magnets, and prices for the source materials have fluctuated wildly.

Instead of hunting for completely new building blocks, some scientists are now developing methods to control known source materials on a finer scale. This approach could lead to more magnetism from less material. Still other scientists are responding to the challenge by exploring methods for extracting the valuable metals from already-used commercial products, essentially recycling the rare-earth magnets

More information: cen.acs.org/articles/91/i1/Pow...ull-New-Magnets.html

Provided by American Chemical Society

Citation: Supply problems spark search for new ways to make magnets—not the 'fridge' variety (2013, January 9) retrieved 19 April 2024 from <https://phys.org/news/2013-01-problems-ways-magnetsnot-fridge-variety.html>

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