

# Scientists study a magnetic makeover

**Researchers at the University of Victoria have discovered new lightweight magnets that could be used in making everything from extra-thin magnetic computer memory to ultra-light spacecraft parts. A paper on the study will appear in the Jan. 18 edition of *Nature*.**

For decades, researchers have attempted to create an alternative to conventional pure metal or metal alloy magnets, which are heavy, inflexible and can only be produced under high temperatures.

The team, led by UVic chemist Dr. Robin Hicks, discovered a simple method for making a new family of organic-based magnets by combining nickel and one of three different organic compounds. The discovery is the first step in designing the next generation of magnets which could, in theory, be easily manipulated at room temperature.

“The sky’s the limit for these magnets, in principle,” says Hicks. “Suppose you want to make a particular shape of magnet — these magnets could be dissolved in solution and shaped into a different form.”

“Conventional magnets are a ubiquitous part of everyday life, controlling everything from computers to cars, so I believe these new, highly processable magnets could have endless applications.”

The team will continue to fine-tune this next-generation of magnets, which resemble black powder, to further develop their processability and commercial potential.

Source: University of Victoria

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