Cover Picture

Esther Breuning, Mario Ruben, Jean-Marie Lehn, Franz Renz, Yann Garcia, Vadim Ksenofontov, Philipp Gütlich, Elina Wegelius, and Kari Rissanen

The cover picture shows how both, fine arts and science, avail themselves of a system of intertwined symbolic and iconic languages. They make use of a common set of abstracted signs to report on their results. Thus, already in 1925, Wassily Kandinsky painted a masterpiece (bottom), which now, 75 years later, might be regarded as a blueprint for a scientific project. In his painting, Kandinsky pictured a grid-shaped sign that resembles in effect an actual molecular switch. Apparently following an enigmatic protocol, the groups of Lehn and Gütlich (see p. 2504 ff. for more details) constructed a grid-type inorganic architecture that operates as a three-level magnetic switch (center) triggered by three external perturbations $(p, T, h\nu)$. The switching principle is based on the spin-crossover phenomenon of Fe^{II} ions and can be monitored by Mössbauer spectroscopy (left) and magnetic measurements (rear). Maybe not by chance, the English translation of the title of the painting "signs" is a homonym of "science", since both presented works are a product of the insatiable curiosity of man and his untiring desire to recognize his existence.

