

A wheel-shaped nanosized molybdenum oxide based nanoreactor: Unprecedented acid and assembly behaviour as well as electronic structure.

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The amazing properties of wheel-shaped nanosized molybdenum oxide cluster anions contained in /molybdenum blue/ solutions turned out as textbook examples for complex behaviour. The presentation begins with a historical survey over more than two centuries research on such solutions, explains why many of the early researchers failed and continues with some impressive recent results on the nanoreactor properties, the acid and assembly behaviour of these species in solution (forming a new solution state for inorganic ions) and visualizing their unprecedented electronic structure.