

Have Orbitals Really Been Observed?

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Abstract

The article disputes the recent claim featured in "Nature" magazine and many other science magazines to the effect that atomic orbitals have been observed for the first time.

The claim is incorrect in view of the unconvincing nature of the evidence adduced and since atomic orbitals are deemed unobservable in principle by quantum mechanics. In addition, the possible educational drawbacks of this incorrect claim are discussed.

Keywords: quantum chemistry, chemistry, atomic orbitals, realism, anti-realism, observation

Subjects: [General Issues: Rhetoric of Science](#)

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