

The Role of Idealisations in Describing an Isolated Molecule

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The investigation of the relation between chemistry and quantum mechanics includes examining how the two theories each describe an isolated molecule. This paper focuses on one particular characteristic of chemistry's and quantum mechanics' descriptions of an isolated molecule; namely on the assumptions made by each description that an isolated molecule is stable and has structure. The paper argues that these assumptions are an idealisation. This examination is a novel contribution that raises interesting questions about the relation between the two theories, the nature of stability and structure, and the function of these assumptions in the two theories.