

Qualitative Theory and Chemical Explanation

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Abstract

Roald Hoffmann and other theorists claim that we ought to use highly idealized chemical models ("qualitative models") in order to increase our understanding of chemical phenomena, even though other models are available which make more highly accurate predictions. I assess this norm by examining one of the tradeoffs faced by model builders and model users --- the tradeoff between precision and generality. After arguing that this tradeoff obtains in many cases, I discuss how the existence of this tradeoff can help us defend Hoffmann's norm for modelling.

Keywords: models, explanation, chemistry, Roald Hoffmann, tradeoffs, idealization

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[Specific Sciences: Chemistry](#)

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