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Trends in Student Thinking Among Undergraduates Studying Thermodynamics and Kinetics LINDA KOCH, CARL WIEMAN, University of Colorado at Boulder — Student misconceptions in thermodynamics and kinetics have been explored in a number of studies. Here, we surveyed all the students in two undergraduate physical chemistry classes to determine how widespread different misconceptions are. Sixty students were given a short answer test, in which they wrote out their solutions to 34 conceptually oriented questions. The student responses were analyzed to determine how students were thinking about problems, and if some methods for solving problems were linked to getting the correct answer. This study is part of validating a conceptual survey for thermodynamics and kinetics.

> Linda Koch University of Colorado at Boulder

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