

HD04 9:45 a.m. Identifying and Addressing Student Learning Difficulties in Calorimetry and Thermodynamics*

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We are engaged in an ongoing investigation of student learning of concepts in calorimetry and thermodynamics. Results of written diagnostic tests and one-on-one interviews with students have provided a consistent picture of common difficulties such as misunderstanding the meaning of specific heat and ascribing state-function properties to heat. We have developed preliminary versions of curricular materials designed to address these difficulties, and we will present data regarding initial testing of these materials.

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