

1023-L5-773

Lynn S. Bennethum* (Lynn.Bennethum@cudenver.edu), 1250 14th St., Suite 600, Campus Box 170, P.O. Box 173364, Denver, CO 80217-3364. *Total Differential and Partial Derivatives - A Different Perspective for Chemistry Students*. Preliminary report.

In physical chemistry it is often necessary to switch between dependent variables and independent variables without a priori knowledge of what the functional relationship is between the variables. By using the total derivative as the starting point for the derivation of the implicit function theorem, partial derivatives, and the chain rule, one can lay the groundwork for the more challenging problems physical chemistry students face. In this talk we present the proposed framework and introduce physical chemistry problems which could be addressed within this framework. (Received September 21, 2006)