

"Free Radical Bromination of 2-Methylbutane and Analysis by  $^1\text{H}$  NMR Spectroscopy." Breton, G.W. *Chemical Educator*, 2005. 10:298-299.

Abstract: The free-radical bromination of inexpensive 2-methylbutane using neat  $\text{Br}_2$  takes place smoothly using a conveniently designed microscale glassware setup to provide a single major product. This product is readily identified as 2-bromo-2-methylbutane by comparison of the observed  $^1\text{H}$  NMR spectrum to spectra predicted for each of the potential products. This laboratory experiment demonstrates the powerful use of  $^1\text{H}$  NMR spectroscopy as a means for identification of a major reaction product from the spectrum of a crude reaction mixture.