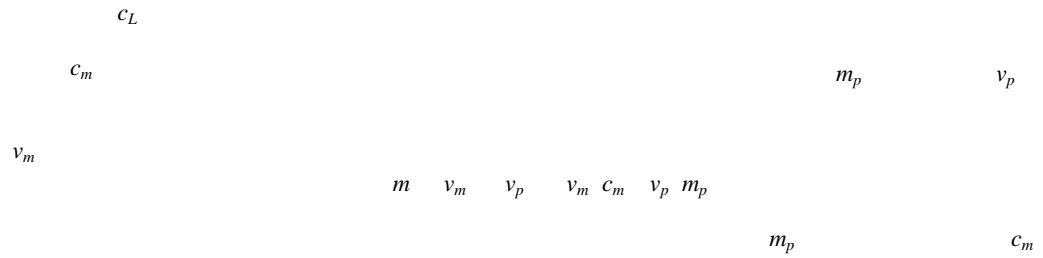


amc technical brief

A glimpse into Bayesian statistics

Many analytical chemists find the logic of hypothesis tests and confidence intervals hard to follow. What looks like a probability statement about a true concentration is in fact an assertion about random intervals, involving data we did not observe but might have. There is another way. Bayesian statistics allows, indeed insists on, probabilities for hypotheses.

An example



A standard statistical treatment

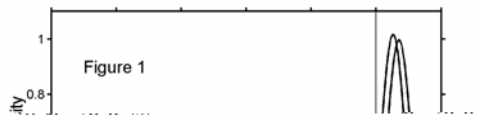
v v_m v_p

An 'informative prior' distribution

m_p v_p

m_p

v_p



A Bayesian analysis

posterior likelihood prior

