

Information from Noise

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Every signal from a system in equilibrium is composed of the mean value and of the fluctuating component, popularly known as “noise”. The spectral analysis of noise, otherwise known as “noise or fluctuation analysis” yields information that is equivalent to that obtained from e.g. impedance spectroscopy. However, there is one important difference, which makes the noise analysis more powerful. The system under study does not have to be perturbed by an external stimulus, making it a true equilibrium measurement. Electrochemical applications of this approach will be discussed.