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Seção
Abstracts

A Gaussian conduction carrier EPR line

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Resumo

Analyzing the EPR spectra of a selfstanding conducting polymer film we noticed the asymmetry of the first derivative of the EPR line, suggesting that we should use a Dysonian line. This Dysonian line can be represented by a combination of absorption and dispersion Lorentzian lines. However we noticed that adding a small Gaussian line would improve the fitting. Hence, due to the skin depth, we introduced numerically a dispersion contribution to this absorption Gaussian line according to G. E. Pake and E. M. Purcell (Phys. Rev. 74, 1184–1188 (1948)). To our knowledge, this is the first time that this dispersive contribution of the Gaussian line has been introduced in the analysis of the EPR spectrum.