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 1.14. Applications of the theory of Brownian movement in a potential; 1.15. Rotational Brownian motion: application to dielectric relaxation; 1.15.1. Breakdown of the Debye theory at high frequencies; 1.16. Superparamagnetism: magnetic after-effect; 1.17. Brown's treatment of Neel relaxation; 1.18. Asymptotic expressions for the Neel relaxation time; 1.18.1. Magnetization reversal time in a uniaxial superparamagnet: application of Kramers' method; 1.18.2. Escape rate formulas for superparamagnets; 1.19. Ferrofluids
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 2.4. Derivation of differential-recurrence relations from the one-dimensional Langevin equation

Sommario/riassunto

This volume is the third edition of the first-ever elementary book on the Langevin equation method for the solution of problems involving the translational and rotational Brownian motion of particles and spins in a potential highlighting modern applications in physics, chemistry, electrical engineering, and so on. In order to improve the presentation, to accommodate all the new developments, and to appeal to the specialized interests of the various communities involved, the book has been extensively rewritten and a very large amount of new material has been added. This has been done in order t
