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Maxwell effect in polymer solutions for high velocity gradients

Aizenbyerg I., Eskin L.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Binomial asymptotics of the angle of orientation and birefringence (b.r.) in solutions of rigid rod-shaped polymeric macromolecules has been found at high velocity gradients. The conditions of applicability of the asymptotic formulae obtained and the possibility of using them for determining the size of the macromolecules have been established. The use of the results to determine the size of the collagen molecule is demonstrated. The result well agrees with those given in the literature.

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