



21世紀COE「トポロジー理工学の創成」セミナー

第115回エンレイソウの会

場 所: 理学部2号館 2 - 4 - 02

日 時: 平成19年 9月 12日(水曜日)

13:00 ~ 14:00

講演者: Prof. Helmut R. Brand

(Dept. of Physics, University of Bayreuth)

題 目: 『**Polymer rheology and nonlinear transient elasticity**』

要 旨: We analyze our previously derived general macroscopic equations incorporating transient elasticity by assuming incompressibility as well as linear response for the dissipation. We take into account terms up to quartic order in the elasticity (3 independent coefficients) and have in addition only two dissipative constants: the shear viscosity and the relaxation time of transient elasticity. This simple model can account for many experimentally observed rheological effects qualitatively and sometimes even quantitatively. Flow phenomena discussed include the Weissenberg effect, overshoot, relaxation spectra and elongational flows.

エンレイソウの会連絡先

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