

Abstract Submitted  
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**Strain induced non-linear effects in Dynamic Viscosity measurements**<sup>1</sup> J.P. IBAR, IPREM University of Pau, 64013 Cedex — Melt viscosity measurements conducted at increasing  $\omega$  and strain, in a parallel plate dynamic rheometer, trigger a roaster of non-linear effects which we review, such as variation from the commanded strain, non-linearity between stress and strain, time dependence of the  $G'$  and  $G''$  moduli, and appearance of slip. In addition, melt fracture, at the surface or in the bulk has been reported. Both the Torque and the Normal Force are studied. Results from both a constant strain rheometer (RDAII) and a constant stress rheometer (Bohlin SVO are reviewed. We examine the many aspects of non-linearity and explore the origin(s) of these manifestations, whether due to measurement limitations, melt instability, or purely the expression of non-linear viscoelasticity

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