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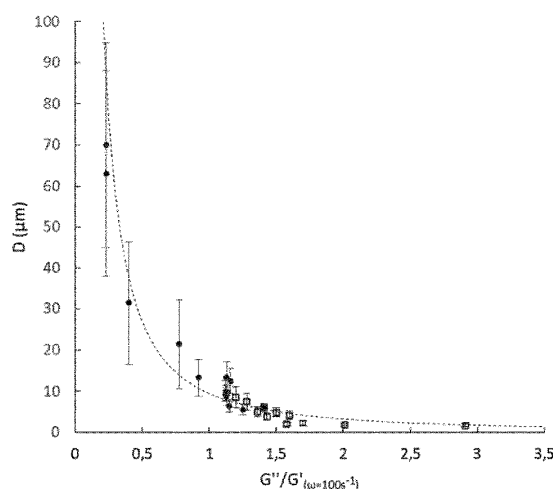


FIG. 1

(57) Abstract: The present invention relates to an emulsion comprising size-controlled droplets dispersed in a viscoelastic continuous phase comprising a polymer in solution in a solvent, wherein the viscoelastic continuous phase presents a ratio between the viscous modulus (G'') and the elastic modulus (G') ranging from 0.2 to 10 and wherein the mean diameter of the droplets is proportional to the G'/G'' ratio with 1.5 as exponent. The invention also relates to a process for the fabrication of size-controlled droplets in a viscoelastic continuous phase of an emulsion. The invention still relates to the use of the emulsion in applications requiring size-controlled droplets.

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