



The Society of Rheology 85<sup>th</sup> Annual Meeting – *Montréal, Québec, Canada*

## Program Updates

- **Paper SC6** [Monday, 1:30, Westmount (Track 1)] has been withdrawn. It is replaced by **Paper PO94** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)].
- **Paper IP8** [Monday, 2:20, Verdun/Lachine (Track 2)] has been withdrawn.
- **Paper PS18** [Tuesday, 11:15, Mont-Royal/Hampstead (Track 4)] has been withdrawn. It is replaced by **Paper PO21** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)].
- **Paper SC28** [Tuesday, 5:15, Westmount (Track 1)] has been withdrawn. It is replaced by **Paper PO59** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)].
- **Paper SC31** [Wednesday, 10:50, Westmount (Track 1)] has been withdrawn.
- **Paper MB37** [Wednesday, 2:45, Outremont (Track 3)] has been withdrawn.
- **Papers PO17, PO18 and PO47** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)] have been withdrawn.
- **Paper PO21** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)] has moved to the *Polymer Solutions* session. It is now **Paper PS18** [Tuesday, 11:15, Mont-Royal/Hampstead (Track 4)].
- **Paper PO59** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)] has moved to the *Suspensions and Colloids* session. It is now **Paper SC28** [Tuesday, 5:15, Westmount (Track 1)].
- **Paper PO94** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)] has moved to the *Suspensions and Colloids* session. It is now **Paper SC6** [Monday, 1:30, Westmount (Track 1)].
- **Paper PO101** [Wednesday, 5:30, Salons Fontaine C-H (Poster Session)] has been added:

### **Characterizing the viscoelasticity of soft contact lenses immersed in saline**

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Characterizing the mechanical properties of hydrogels can be challenging, and often requires immersion in water to prevent dehydration. Measurements on actual contact lenses pose additional complications due to their non-uniform thickness and spherical shape. Historically, stress-strain testing in an Instron has been employed to determine Young's modulus. The viscoelasticity of contact lens materials is believed to impact product performance, but the exact relationships are unknown. In this talk, we will discuss the development of improved experimental techniques to measure contact lens rheology in oscillatory tension. We built customized fixtures and modified the submersion geometry for the RSA-G2 DMA to perform the measurements. Both conventional and silicone hydrogel lens materials were studied. We observe a variety of frequency responses for the storage and loss moduli. To quantify the measurements we developed an empirical model for the viscoelastic response. Additionally, we find that time-Temperature Superposition works well and construct Master Curves using both horizontal and vertical shifts.