



Rheology of hydroxypropylcellulose in dilute solutions

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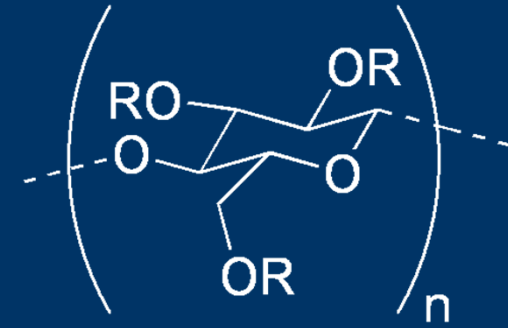
Both institutions are members of the European Polysaccharide Network of Excellence (EPNOE) www.epnoe.eu

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Objective

The goal of this investigation was to study the behaviour of hydroxypropylcellulose in very viscous solvents in order to understand the dynamics of isolated long chains.



HPC – Klucel

$M_w = 1.15 \times 10^6$ (g/mol)

Solvents: - 10% glucose in water
- glycerin

Concentrations: (0.01% - 0.08%)
0.1% – 5%

Anton Paar - MCR 301, 302
Couette, cone-plan, plan-plan

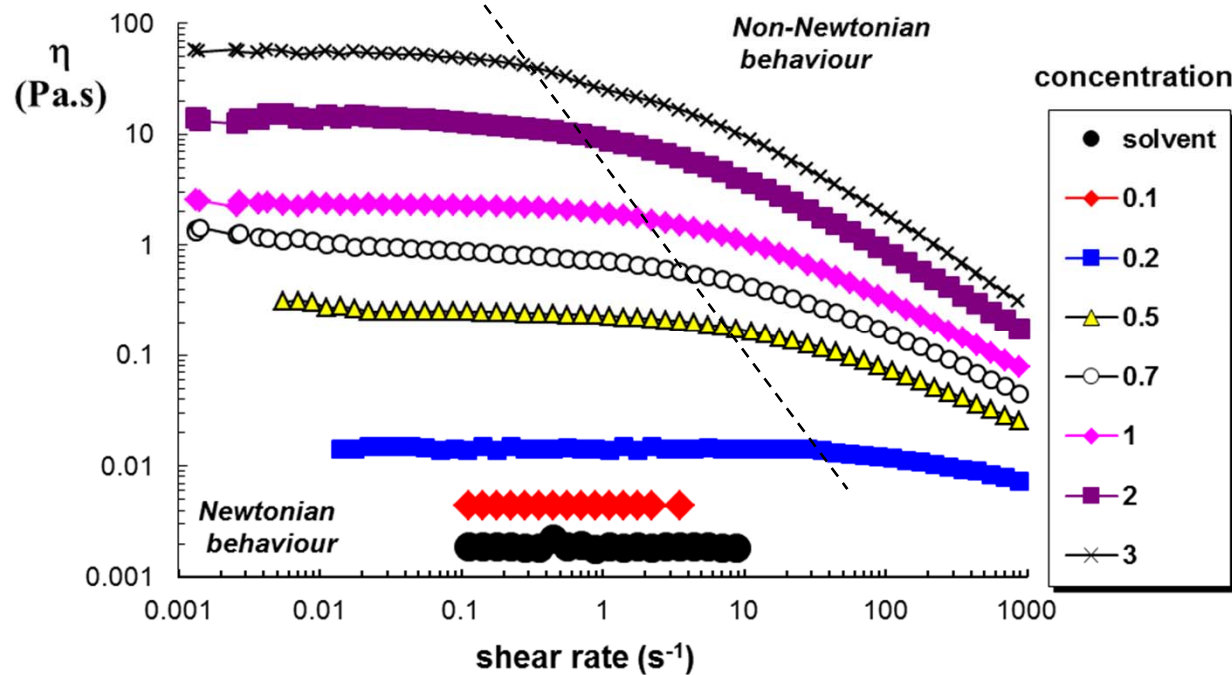
Bohlin - Gemini, CVO
Cone-plan, plan-plan

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Shear flow curves

- Influence of polymer concentration

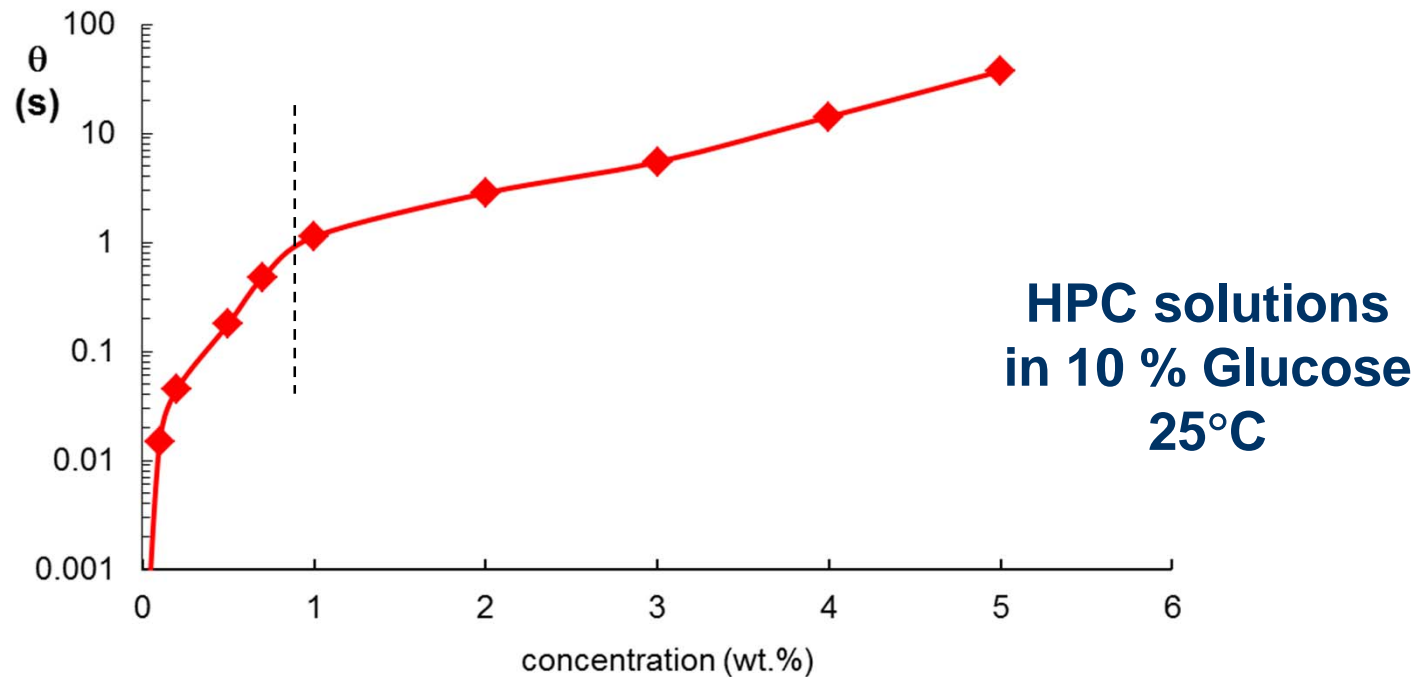


HPC solutions
in 10 % Glucose
25°C

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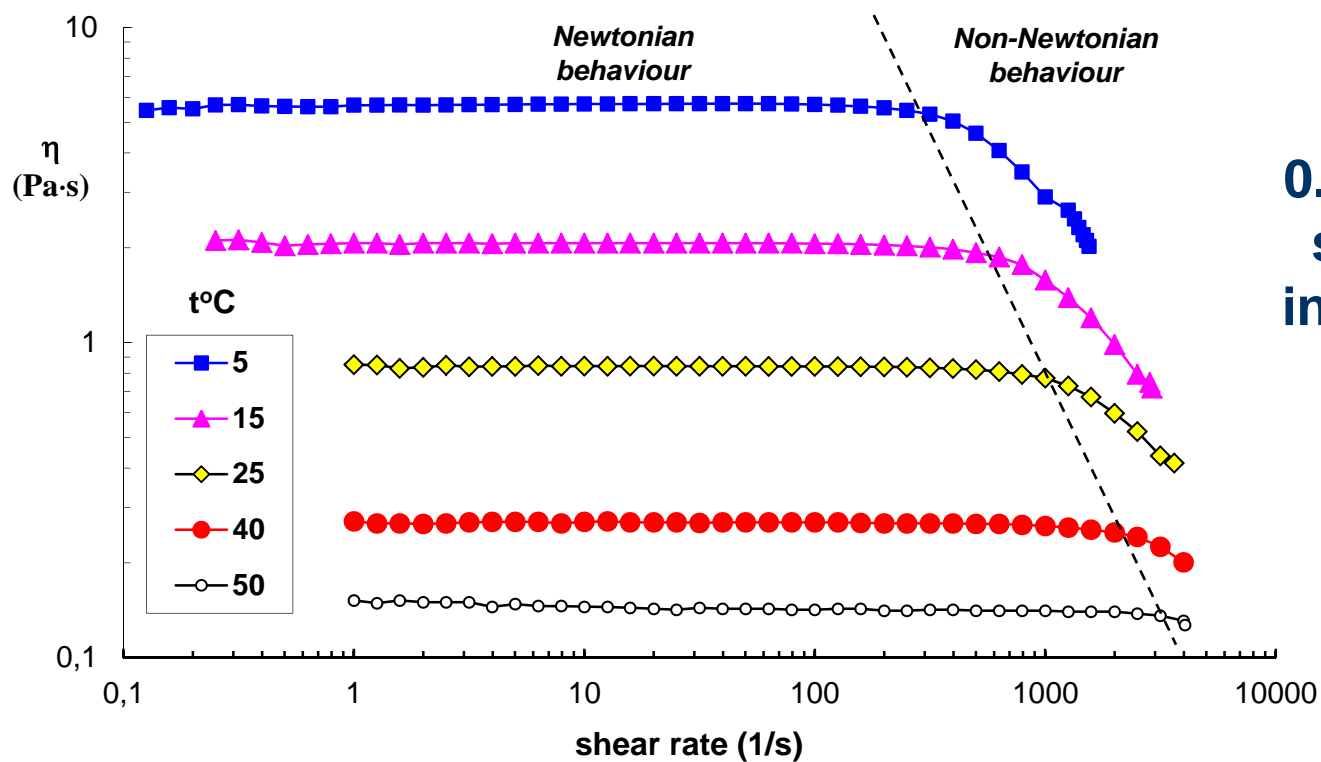
- Relaxation time -



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Shear flow curves

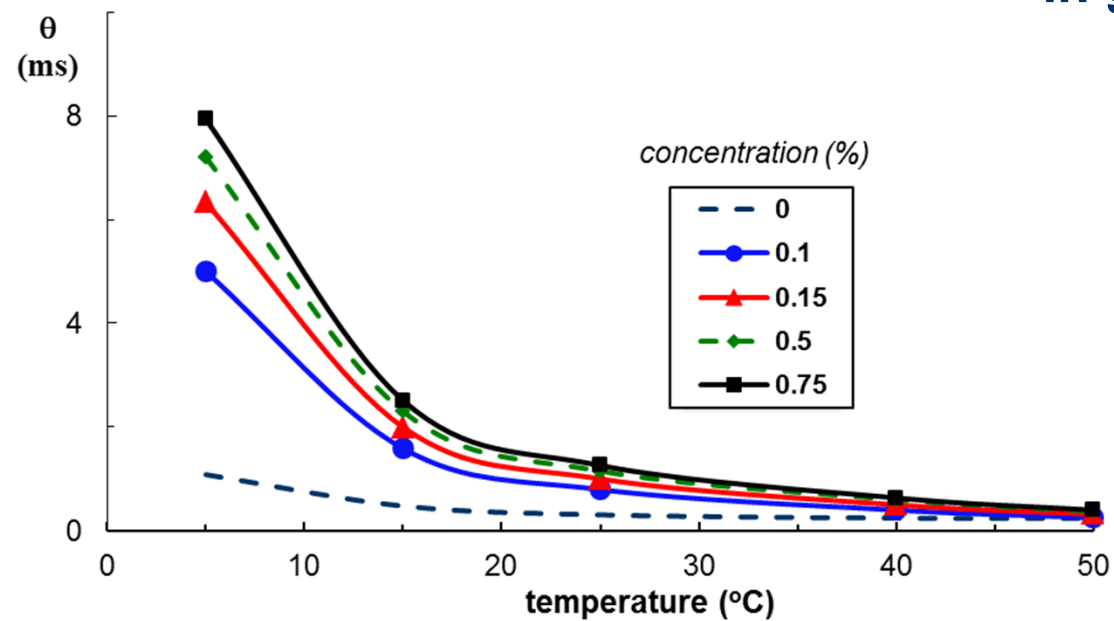
- Influence of temperature



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- Relaxation time -

HPC solutions
in glycerin



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Thank you very much!

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