

# Nanoscale Organisation and Dynamics Group

University of Western Sydney



## Polysaccharide gels: diffusion and rheology

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### Abstract

I will be revisiting very shortly our current understanding of the gelation and rheological properties of iota and kappa carrageenan in binary mixtures. I will then present results on diffusion of poly(ethylene oxide) in agarose gels, where anomalous diffusion appears above a critical agarose concentration that depends on the size of the probe. Finally we will have a short look at the isotope effect in agarose D<sub>2</sub>O and H<sub>2</sub>O gels as reflected from several bulk properties.

### Profile

Tom Brenner is a graduate of the University of Iceland, having completed his Ph.D. under the guidance of Dr Ragnar Johannsson of Icelandic Food Research and Dr Taco Nicolai of the University of du Maine (France). He spent 2 years at Osaka City University with Prof. Katsuyoshi Nishinari and is currently a JSPS at Tokyo University of Marine Science and Technology in Prof. Shingo Matsukawa's group, researching probe diffusion in polysaccharide gels and gel rheology. Current research interests include correlation of mechanical properties of food with sensory properties and structural modulation of cold-setting gel properties through simple composition or curing manipulation.

**Staff and students at all levels are welcome to attend.**

### Venue and Time:

This talk will be held on Wednesday 12 August at 3 pm at the Campbelltown Campus in Building 9, Lecture Theatre 4 (CA-09.G.02).

### Enquiries:

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