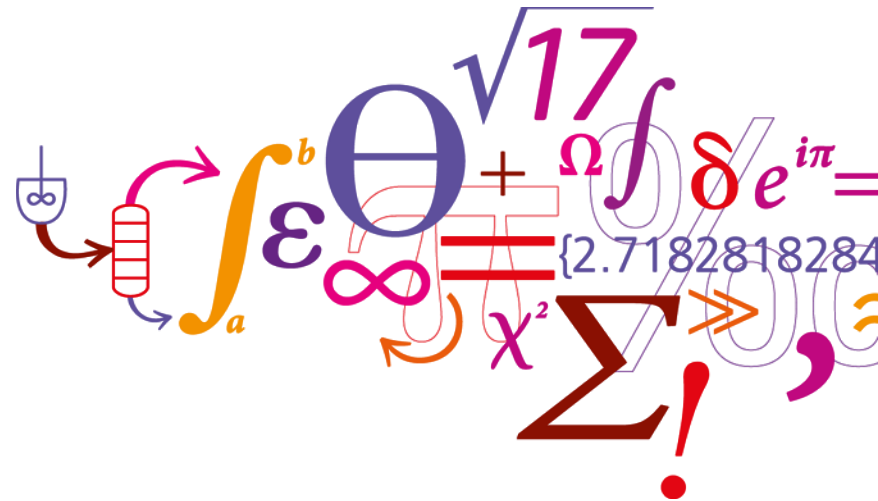


Danish Polymer Centre

Jeppe Madsen
DoDyNet Kick-off meeting

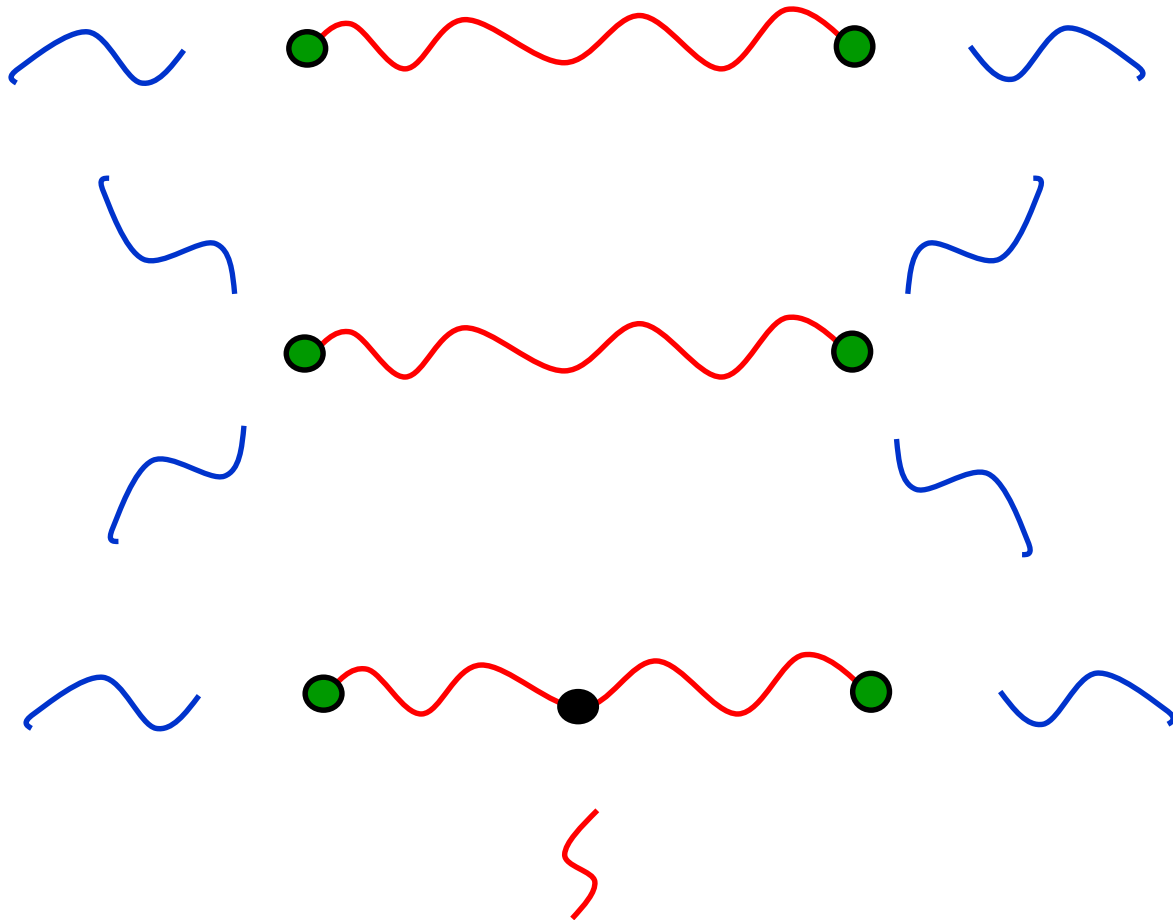
November 30, 2017



Polymer Synthesis at DPC

- Anionic polymerisation
 - Ring-opening polymerisation
 - Controlled radical polymerisation
 - Condensation polymerisation
 - Enzymatic polymerisation
 - Functional polymers
 - Polymers with complex structures
-
- Monomers
 - Initiators
 - Probe/dye synthesis

Complex polymer structures from smaller building blocks



**Polymers with
positioned
functionalities**

**Coupling of
polymer chains**

**Rapid preparation
of larger, more
complex structures
using orthogonal
chemistry**

Polymerisation setup



Moisture/air sensitive polymerisations
(Anionic polymerisation, Ring-Opening polymerisation)

S. Ndoni *et al* Review of Scientific Instruments 1995, 66, 1090

Facilities at DPC and DTU

- SEC (DMF, THF and Toluene, multidetector setup)
- NMR (1H and 13 C, solution)
- IR
- TGA
- DSC
- Absorption and fluorescence
- Electrical testing (various)
- Contact angle goniometer

- Range of rheology equipment

DTU campus:

- Microscopy (AFM, TEM, SEM, Optical, Fluorescence, Confocal)
- NMR (High resolution, solid state, temperature-controlled)
- Surface analysis...