

Study on Onsager coefficient: the dynamics of single polymer chains



Polymer chains with very **similar** thermodynamics can have **diverse** collective behavior.

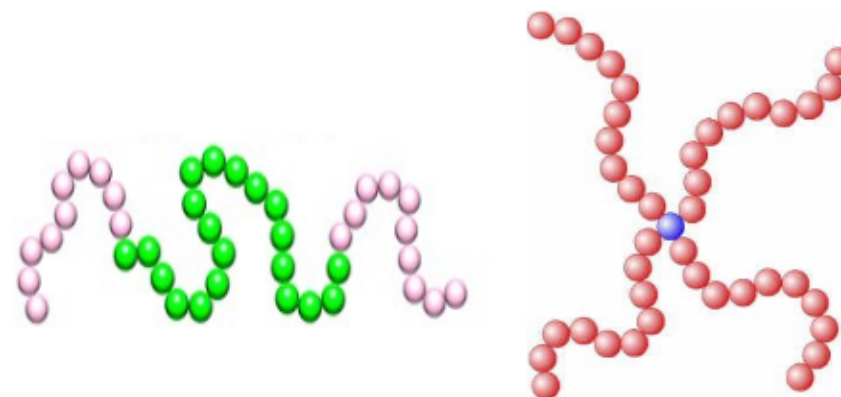
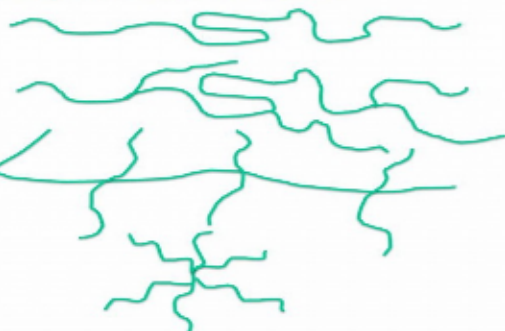
Polymer Architecture

Linear

Branched

Side-branched

Star-branched



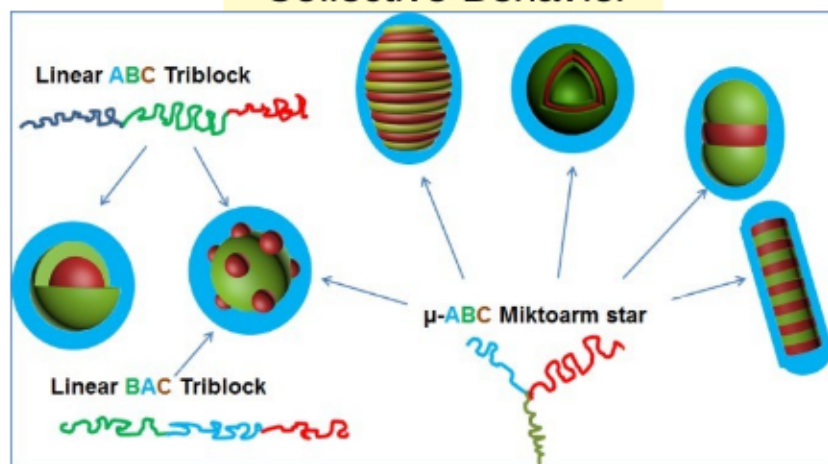
Polymers occur in various molecular architectures. This leads to various dynamics within the chain and thus different dynamic collective behavior.



Single chain dynamics can be described by a quantity called **Onsager Coefficient**.

How does the molecular architecture influence the thermodynamics and kinetics of the density?

Collective Behavior



We use **GPU accelerated computer simulation** to perform the investigation. You will:

- learn about models for polymers and soft matter
- use the biggest super-computing centers
- learn useful computational techniques
- get any help you need from the research group

Contact: Marcus Müller, Gaoyuan Wang
A.03.120, gaoyuan.wang@stud.uni-goettingen.de