

# Master Thesis Opportunity: Rheological Measurements of Salt-Free Polyelectrolyte Solutions

Are you ready to dive into an innovative rheology research with significant industrial implications? The LSTM invites applications for a master's thesis focused on the rheological measurements of salt-free polyelectrolyte solutions using cutting-edge rheometers.

## Research Overview:

This project will explore the behavior of polyelectrolyte solutions up to extreme shear conditions, by utilizing our narrow-gap rheometer capable of measuring world record shear rates. The research experience includes:

- **Measurement Experiments:** Conducting advanced rheological tests to evaluate the flow properties of polyelectrolyte solutions at high and low shear rates.
- **Sample Preparations:** Preparing samples of different concentrations to ensure accurate and reproducible results.
- **Data Analysis:** Analyzing rheological data to draw meaningful conclusions and contribute to the understanding of polyelectrolyte solutions in the scientific community.

Polyelectrolytes are widely used across various industries, including food, pharmaceuticals, and cosmetics. Understanding the flow behavior is crucial for optimizing formulations and processing techniques, making this research highly relevant in today's world.

## What We Offer

- Access to a unique cutting-edge rheometer and advanced laboratory facilities.
- Guidance from experienced members.
- An opportunity to contribute to breakthrough rheology research with real-world applications.

## Ideal Candidate

We are looking for motivated candidates with a background in chemical engineering, fluid mechanics, materials science, or related fields.

For more information, please contact [ammar.menayyir@fau.de](mailto:ammar.menayyir@fau.de)