

Yang-Yu Liu

 [leo-lyy](#) |  [leo-lyy.github.io](#) |  liuyangyu.leo@foxmail.com |  (86)19853248370

RESEARCH INTERESTS

Molecular Dynamics, Polymer, Rheology, Machine Learning

EDUCATION

South China University of Technology	2023.09 – present
<i>Master in Soft Matter Science and Engineering</i>	GPA: 3.57/5
Qingdao University of Science and Technology	2019.09 – 2023.06
<i>Bachelor in Polymer Materials and Engineering</i>	GPA: 3.52/5

RESEARCH EXPERIENCE

South China University of Technology	2023.09 – present
<i>Molecular Dynamics Simulation of Polymer Melt under Confined Shear Flow</i>	
– Established molecular dynamics simulations of isotactic polypropylene melt under confined shear flow using LAMMPS.	
– Developed an analysis program to examine conformational evolution, wall slip behavior, and shear-induced crystallization.	
• Poster presented at <i>SOFT MATTER: A REALM OF THEORY AND SIMULATION</i> . Chinese Chemical Society; 2024 Nov 8-11; Guangzhou, China.	
Qingdao University of Science and Technology	2021.03 – 2023.06
<i>Simulation of Mechanical Properties of Polydisperse Polyethylene Melt</i>	
– Performed molecular dynamics simulations to investigate deformation mechanisms in polydisperse polyethylene melts.	
– Demonstrated that short-chain components mitigate local stress concentrations through whole-chain motion during deformation.	

AWARDS & HONORS

• Outstanding Graduate	
Qingdao University of Science and Technology	2023.06
• Third Prize of Asia and Pacific Mathematical Contest in Modeling	
APMCM Organizing Committee	2021.12
• Excellent Camper of PKU-SIAT Summer School on Interdisciplinary Polymer Science	
Peking University and Shenzhen Institute of Advanced Technology	2021.08
• Third Prize of National English Competition for College Students	
College English Teaching & Research Association of China	2020.11
• First Prize of National Mathematical Contest in Modeling, Shandong Division	
China Society for Industrial and Applied Mathematics	2020.10

SKILLS

English Certificates	CET-4: 618, CET-6: 580
Programming languages	C++, Python, MATLAB
Molecular dynamics softwares	LAMMPS, Moltemplate, OVITO
More	Server operation & maintenance, L ^A T _E X, Adobe Photoshop, Illustrator, Premiere