



## Dr. Ahana Purushothaman

Assistant professor



### Personal Data:

Nationality | Indian  
Date of Hire | 20/08/2023  
Date Rank Obtained | 20/08/2023  
Department | Chemical Engineering  
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### Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Chemical Engineering	Chemical Engineering	Indian Institute of Technology (IIT) - Madras, India	Indian Institute of Technology (IIT) - Madras, Chennai, Tamilnadu India	06/07/2021
Masters (M.Sc.)	Chemical Engineering	Chemical Engineering	Indian Institute of Technology (IIT) - Bombay, India	Indian Institute of Technology (IIT) - Bombay, Mumbai, Maharashtra, India	30/05/2015
Bachelor (B.Sc.)	Chemical Engineering	Chemical Engineering	National Institute of Technology (NIT) - Calicut, India	National Institute of Technology (NIT) - Calicut, Kerala, India	30/05/2012

### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	Hydrodynamics of channel confined micro-swimmers
Master	Computer Aided Molecular Design (CAMD) of Ionic Liquids (ILs)

### Experiences:

Title of Job	Address of Work	Country	Date
Post doctoral researcher	ICSR, IIT Madras, Tamilnadu, India	India	From 15/04/2021
			To 23/05/2023

### Research Interests:

1. Hydrodynamics of active particles
2. Heat transfer in Polymer crystallisation
3. Lattice Boltzmann simulations

### Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Ahana Purushothaman, S Adhikari, C Durning, S K Kumar and Sumesh P. Thampi.	Directional Polymer Crystallisation with a fast-moving sink.	Soft Matter 19, (2023): 4011-4020.	<a href="https://pubs.rsc.org/en/content/articlelanding/2023/sm/d2sm01589g/unauth">https://pubs.rsc.org/en/content/articlelanding/2023/sm/d2sm01589g/unauth</a>
2	C Durning, Ahana Purushothaman, S Adhikari, S K Kumar and Sumesh P. Thampi.	Physics of Directional Polymer Crystallisation	ACS Macroletters 11, (2022): 1102-1106.	<a href="https://pubs.acs.org/doi/abs/10.1021/acsmacrolett.2c00346">https://pubs.acs.org/doi/abs/10.1021/acsmacrolett.2c00346</a>
3	S Adhikari, Ahana Purushothaman, A A Krauskopf, C Durning, S K Kumar and Sumesh P. Thampi.	Modeling polymer crystallisation induced by a moving heat sink.	Soft Matter 17, no. 9 (2021): 2518-2529.	<a href="https://pubs.rsc.org/en/content/articlelanding/2021/sm/d0sm02237c/unauth">https://pubs.rsc.org/en/content/articlelanding/2021/sm/d0sm02237c/unauth</a>
4	Ahana Purushothaman and Sumesh P. Thampi.	Hydrodynamic collision between a microswimmer and a passive particle in a micro-channel.	Soft Matter 17, no. 12 (2021): 3380-3396.	<a href="https://pubs.rsc.org/en/content/articlelanding/2021/sm/d0sm02140g/unauth">https://pubs.rsc.org/en/content/articlelanding/2021/sm/d0sm02140g/unauth</a>
5	Ahana Purushothaman and Sumesh P. Thampi.	Colloidal hydrodynamics using a quasi-steady algorithm in lattice Boltzmann method.	Bulletin of Materials Science 43, (2020): 1-9.	<a href="https://link.springer.com/article/10.1007/s12034-020-2074-z">https://link.springer.com/article/10.1007/s12034-020-2074-z</a>
6	Ahana Purushothaman and Sumesh P. Thampi.	Confinement induced trajectory of a squirmer in a two-dimensional channel.	Fluid Dynamics Research 51, (2019): 065504.	<a href="https://iopscience.iop.org/article/10.1088/1873-7005/ab4d08/meta">https://iopscience.iop.org/article/10.1088/1873-7005/ab4d08/meta</a>

### Language Proficiency:

1. English
2. Hindi
3. Malayalam