Curriculum Vitae

PERSONAL INFORMATION

Family name, First names:	Haase, Martin F.
ORCID:	0000-0002-1355-151X
Google scholar:	Martin F. Haase - Google Scholar
Date of birth:	August 26th, 1981
Nationality:	German
URL for web site:	www.martinhaase.com & https://www.uu.nl/staff/MFHaase

• EDUCATION

2008 - 2011 PhD in Physical Chemistry (magna cum laude), PhD defended October 25th 2011
Max Planck Institute of Colloids and Interfaces, Potsdam, Germany
PhD supervisor: Prof. Dr. Dr. h.c. Helmuth Möhwald

2004 - 2008 Dipl. Ing. (FH) in Process Engineering, Beuth University, Berlin, Germany

• CURRENT POSITION

2022 – present Associate Professor (UHD-2) with *ius promovendi*
Department of Chemistry, Van't Hoff Laboratory of Physical and Colloid Chemistry, Debye Institute for Nanomaterials Science, Utrecht University (UU)

• PREVIOUS POSITIONS

2021 – 2022 Assistant Professor (UD-1, tenured)

2019 – 2021 Assistant Professor (UD-1, tenure track), Department of Chemistry, UU

2016 – 2019 Assistant Professor (tenure track)
Department of Chemical Engineering, Rowan University, Glassboro NJ, USA

2014 – 2016 DFG-postdoctoral fellow
Depart. of Chemical and Biomolecular Engineering, University of Pennsylvania, USA

2012 – 2014 Postdoctoral scholar
Department of Physics, Center of Soft Matter Research, New York University, USA

• FELLOWSHIPS AND AWARDS

2025 – 2030	**NWO-Vici Grant,** Title: SPEED-UP-LIBs - Shortening diffusion Pathways for Energy Dense and Ultrahigh Power Lithium Ion Batteries	1,500,000 €
2021 – 2026	**NWO-Vidi Grant,** Bijel templated membranes for molecular separations	800,000 €
2019 – 2024	**ERC-Starting Grant**, 3D Flow Analysis in Bijels Reconfigured for Interfacial Catalysis (3D-FABRIC),	1,900,000 €
2019 – 2020	**ACS-PRF award**, American Chemical Society, Liquid fibers for continuously operated liquid-liquid extraction,	110,000 $
2018 – 2020	**NSF-CAREER award**, National Science Foundation USA, Nanostructured Particle Stabilized Bicontinuous Emulsions	500,000 $
2018 – 2019	**Rowan University Seed Fund**, Internal competitive proposal,	10,000 $
2015	**Best poster price**, 5th International Colloids Conference	
2014 – 2016	**DFG-Postdoctoral fellowship**, Formation of monodisperse, non-spherical emulsion droplets by particle stabilizers	43,000 €
		Σ ≈ 4.9 M€

- **TEACHING**

2025 – now	BSc course (30 students)	– Advanced Physical Chemistry, UU
2021 – now	BSc course (140 students)	– Thermodynamics, UU
2020 – now	MSc course (20 students)	– Transport phenomena, UU
2018 – now	BSc course (4 students)	– Second year chemistry research project, UU
2020 – 2021	BSc course (30 students)	– Introduction to chemistry, UCU
2017 – 2018	BSc course (25 students)	– Fluid dynamics, Rowan University, USA
2017 – 2019	BSc course (30 students)	– Material and energy balances, Rowan University

- **ORGANISATION OF SCIENTIFIC MEETINGS**

2025 Co-organizer (with Joost de Graaf) 38th Dutch Soft Matter meeting, 130 participants

2022 Main organizer (with Daniela Kraft and Roel Dullens), symposium: "From Colloids to Viruses: Soft Matter Comes Alive", 150 participants, https://sites.google.com/view/colloids-to-viruses/home / Utrecht, The Netherlands

- **INSTITUTIONAL RESPONSIBILITIES**

2016 – now PhD thesis and postdoc supervisor at UU,
5 graduated PhDs as main advisor,
(PhDs now employed as 1. NWO program officer, 2. process engineer at Evonik, 3. engineer at 3D systems Corporation, 4. R&D Specialist bij LATEXFALT B.V., 5. Account Manager Micromeritics)
5 ongoing PhD theses, 2 PhD project openings,
2 completed postdocs, 1 postdoc project opening,
(Postdocs now employed as 1. Project leader at Maastricht University, 2. Senior R&D Scientist Thermulon)

2016 – 2019 PhD thesis supervisor, Rowan University, Department of Chemical Engineering,
2 graduated PhDs as main advisor
(PhDs now employed as 1. Postdoc at Oakridge National lab, 2. Scientist at DuPont)

2024 – 2025 Committee member "inverdiende middelen", committee chair Alexandre Bonvin

2023 – now PhD thesis and defense committee member for 6 PhD candidates at UU, TU/e and WUR

2022 – now Organizer of weekly seminar "Nanoseminar" (Presentations of PhD students/external speakers invited from SCMB, FCC, MCC, CMI, Nanophotonics groups at UU)

2022 Committee member "Vision of the Future of the Chemistry Department" / Utrecht University / Sub discussion group leader "Teaching, Training, and Supervision"

2021 – now Chair of the Physical and Colloid Group's tech-staff meeting / Utrecht University

2021 Member of search committee for tenure-track Assistant Professor position at the Physical and Colloid Chemistry Group / Utrecht University (Committee head Willem Kegel)

2017 – 2019 Chair of the Chemical Engineering (ChE) Seminar series at Rowan University. Organization of schedules and seminar for external speakers.

2017 – 2019 Organizer of the ChE graduate student research seminar at Rowan University. Organization of weekly presentations by graduate students to the department.

- **INDUSTRY/USER COMMITTEES**

2025 – 2030 Chair of NWO-Vici user committee with 4 companies: E-magy, LeydenJar, Lionvolt, E-lyte

2021 – 2026 Chair of NWO-Vidi user committee with 5 companies: Surflay Nanotech, Solsep, Pentair X-flow, Lenntech, FTR Filtration technology)

- **REVIEWING ACTIVITIES**

2023 & 2025 Vidi assessment committee member (pre- and full-proposal stages), Dutch Research Council (NWO), Domain Applied and Engineering Sciences (AES, TTW),

2020 & 2025 Proposal reviewer Deutsche Forschungsgemeinschaft (DFG) (German Research Foundation)

2019 NWO Reviewer: Physics@Veldhoven subcommittee Statistical Physics and soft condensed matter

2019 National Science Foundation (NSF) Reviewer and Panelist, Program: Particulate and Multiphase Processes, Panel: FY19 UNS Interfacial transport panel (PMP Panel 1)

2010 – now Journal reviewer: Nature Nanotechnology, ACS Nano, Nature Communications, Angewandte Chemie Int. Ed., Langmuir, ACS Applied Materials & Interfaces, Journal of Materials Science, Soft Matter, Journal of Chemical Engineering, Journal of Physical Chemistry C, Current Opinion in Colloid and Interface Science

- **INIVTED AND KEYNOTE SCIENTIFIC PRESENTATIONS**

2026 20th European Student Colloid Conference (**invited**), San Sebastian
2025 PAC symposium (**invited**), student conference, University of Amsterdam
2024 Science Honours Academy Symposium "Water" (**invited**), Utrecht University
2023 Wetsus congress (**invited**), Leeuwarden
2023 University of Pennsylvania (**invited**), Philadelphia, USA
2023 18th Zsigmondy Colloquium (**invited**), Berlin, Germany
2022 51st Conference of the German Colloid Society (**invited**), Berlin, Germany
2022 Institute of Physical Chemistry at the University of Stuttgart (**invited**), Germany
2022 Institut Charles Sadron in Strasbourg (**invited**), France
2022 European Colloid and Interface Society conference, (**keynote**), Chania, Greece
2021 European Colloid and Interface Society conference (**keynote**), Athens, Greece
2021 Symposium Designed Assembly of Colloids at Interfaces (**keynote**), online
2020 Department of Chemical Engineering at TU-Delft (**invited**), The Netherlands
2019 MRS Fall Meeting: Multiphase Fluids for Materials Science **(invited)**, Boston, United States
2019 European Colloid and Interface Society conference (**keynote**), Leuven, Belgium
2019 Debye Institute 30th Anniversary Symposium (**invited**), Utrecht, The Netherlands
2019 Brown University, Department of Chemistry (**invited**), Providence, United States
2019 University of Vienna, Department of Materials Chemistry, (**invited**), Vienna, Austria
2019 27th Dutch Soft Matter Meeting (**invited**), Utrecht, The Netherlands
2018 International Association of Colloid and Interface Scientists (**plenary**), Rotterdam,
2018 Debye Institute for Nanomaterials Science Colloquium (**invited**), Utrecht, The Netherlands
2017 MRS Fall Meeting: Multiphase Fluids for Materials Science (**invited**), Boston, United States
2015 University of Edinburgh, Department of Physics **(invited)**, Edinburgh, Scotland

Publication list Martin F. Haase, Utrecht University

41. Eij E. C., de Graaf J., ***Haase Martin F.***, and Steenhoff J. M.
Phase-Field Models for Particle-Stabilised Emulsions, **submitted** in 2025

40. Alting M. T., Thies-Weesie D., Petukhov A., ***Haase Martin F.***
Dynamics of Surfactant-Functionalized Nanoparticle Assembly during Bicontinuous Particle-Stabilized Emulsion Formation. **ChemRxiv**. (2025); doi:10.26434/chemrxiv-2025-z5jxh
This content is a preprint and has not been peer-reviewed.

39. Okoro, Prince D., Kevin Dalsania, Shiril B. Iragavarapu, Benjamin Dela Cruz, Aihik Banerjee, Merve Basaranbilek, ***Haase, Martin F.***, Bahman Anvari, and Iman Noshadi.

Bicontinuous Microarchitected Scaffolds Provide Topographic Cues That Govern Neuronal Behavior and Maturation.
Advanced Functional Materials (2025): e09452.

38. Aihik Banerjee, Anjana Khanal, Prince D Okoro, Shankar P Kharal, Kevin Dalsania, Baishali Kanjilal, Shiril B Iragavarapu, Yiqing Chen, Janitha M Unagolla, Huinan H Liu, Joshua T Morgan, Robert P Hesketh, Arash Pezhouman, Reza Ardehali, Bahman Anvari, ***Haase, Martin F.***, Iman Noshadi
Bicontinuous Interconnected Porous Biomaterials for Tissue Engineering and Regeneration.
Small Science, 5, no. 11 (2025): 2500207.

37. Alting, M. T. & ***Haase, Martin F.***
Regulated silica deposition for porosity control and mechanical enhancement of bicontinuous particle-stabilized emulsions.
Materials Advances, **6**, 9229–9242 (2025).

36. Usman, H., Molaei, M., House, S. D., ***Haase, Martin F.***, Dennis, C. L., & Niepa, T. H. R.
Magnetically responsive nanocultures for direct microbial assessment in soil environments.
Science Advances, **11**, eady2654 (2025).

35. Siegel, H. & ***Haase, Martin F.***
Bijel membranes with tunable porosity for pH-responsive microfiltration.
Small, **21**, 2504768 (2025).

34. Alting, M. T., Thies-Weesie, D. M. E., van Silfhout, A. M., de Ruiter, M., Narayanan, T., ***Haase, Martin F.***, & Petukhov, A. V.
Insights into formation of bicontinuous emulsion gels via in situ (ultra-)small-angle X-ray scattering.
Journal of Physical Chemistry B (2025).

33. Steenhoff, J. M. & ***Haase, Martin F.***
Analysis of bijel formation dynamics during solvent transfer-induced phase separation using phase-field simulations.
Physical Chemistry Chemical Physics, **27**, 5117–5130 (2025).

32. Alting, M. T. & ***Haase, Martin F.***
Stabilizing bicontinuous particle-stabilized emulsions formed via solvent transfer-induced phase separation.
Soft Matter, **21**, 760–769 (2025).

31. Siegel, H., de Ruiter, M., Niepa, T. H. R., & ***Haase, Martin F.***
Effect of charge screening for cationic surfactants on the rigidity of interfacial nanoparticle assemblies.
Journal of Colloid and Interface Science, **678**, 201–208 (2025).

30. Sprockel, A. J., Vrijhoeven, T. N., Siegel, H., Steenvoorden, F. E., & ***Haase, Martin F.***
Stabilizing bicontinuous emulsions with sub-micrometer domains solely by nanoparticles.
Advanced Science, **11**, 2406223 (2024).

29. de Ruiter, M., Alting, M. T., Siegel, H., & ***Haase, Martin F.***
Dual access to the fluid networks of colloid-stabilized bicontinuous emulsions.
Materials Horizons, **11**, 4987–4997 (2024).

28. Siegel, H., de Ruiter, M., Athanasiou, G., Hesseling, C. M., & ***Haase, Martin F.***
Roll-to-roll fabrication of bijels via solvent transfer induced phase separation.
Advanced Materials Technologies, **9**, 2301525 (2024).

27. Sprockel, A. J., Khan, M. A., de Ruiter, M., Alting, M. T., Macmillan, K. A., & ***Haase, Martin F.***
Fabrication of bijels with sub-micron domains via a single-channel flow device.
Colloids and Surfaces A, **666**, 131306 (2023).

26. Siegel, H., Sprockel, A. J., Schwenger, M. S., Steenhoff, J. M., Achterhuis, I., de Vos, W. M., & ***Haase, Martin F.***

Synthesis and polyelectrolyte functionalization of hollow fiber membranes formed by solvent transfer induced phase separation.
ACS Applied Materials & Interfaces, **14**, 43195–43206 (2022).

25. Khan, M. A., Sprockel, A. J., Macmillan, K. A., Alting, M. T., Kharal, S. P., Boakye-Ansah, S., & ***Haase, Martin F.***
Nanostructured, fluid-bicontinuous gels for continuous-flow liquid–liquid extraction.
Advanced Materials, **34**, 2109547 (2022).

24. Kharal, S. P. & ***Haase, Martin F.***
Centrifugal assembly of helical bijel fibers for pH-responsive composite hydrogels.
Small, **18**, 2106826 (2022).

23. Khan, M. A. & ***Haase, Martin F.***
Stabilizing liquid drops in nonequilibrium shapes by interfacial crosslinking of nanoparticles.
Soft Matter, **17**, 2034–2041 (2021).

22. Kharal, S. P., Hesketh, R. P., & ***Haase, Martin F.***
High-tensile strength composite bijels through microfluidic twisting.
Advanced Functional Materials, **30**, 2003555 (2020).

21. Boakye-Ansah, S., Khan, M. A., & ***Haase, Martin F.***
Controlling surfactant adsorption on highly charged nanoparticles to stabilize bijels.
Journal of Physical Chemistry C, **124**, 12417–12423 (2020).

20. Cha, S., Lim, H. G., ***Haase, Martin F.***, Stebe, K. J., Jung, G. Y., & Lee, D.
Bicontinuous interfacially jammed emulsion gels as media for enzymatic reactive separation.
Scientific Reports, **9**, 6363 (2019).

19. ***Haase, Martin F.***, S. Boakye-Ansah, G.D. Vitantonio, K.J. Stebe and D. Lee, *Solvent Transfer Induced Phase Separation for Bicontinuous Pickering Emulsions*, Book Chapter in Bijels: *Bicontinuous particle-stabilized emulsions*, **Royal Society of Chemistry**, link

18. Tran, L. & ***Haase, Martin F.***
Templating interfacial nanoparticle assemblies via in situ techniques.
Langmuir, **35**, 8584–8602 (2019).

17. Boakye-Ansah, S., Schwenger, M. S., & ***Haase, Martin F.***
Designing bijels formed by solvent transfer induced phase separation with functional nanoparticles.
Soft Matter, **15**, 3379–3388 (2019).

16. Di Vitantonio, G., Wang, T., ***Haase, Martin F.***, Stebe, K. J., & Lee, D.
Robust bijels for reactive separation via silica-reinforced nanoparticle layers.
ACS Nano (2018).

15. Tran, L., Kim, H.-N., Li, N., Yang, S., Stebe, K. J., Kamien, R. D., & ***Haase, Martin F.***
Shaping nanoparticle fingerprints at the interface of cholesteric droplets.
Science Advances, **4**, eaas9966 (2018).

14. Duan, G., ***Haase, Martin F.***, Stebe, K. J., & Lee, D.
One-step generation of salt-responsive polyelectrolyte microcapsules via surfactant-organized nanoscale interfacial complexation in emulsions.
Langmuir, **34**, 847–853 (2018).

13. Tran, L., Lavrentovich, M. O., Durey, G., Darmon, A., ***Haase, Martin F.***, et al.
Change in stripes for cholesteric shells via anchoring in moderation.
Physical Review X, **7**, 041029 (2017).

12. ***Haase, Martin F.***, Jeon, H., Hough, N., Kim, J. H., Stebe, K. J., & Lee, D.
Multifunctional nanocomposite hollow fiber membranes by solvent transfer induced phase separation.
Nature Communications, **8**, 1234 (2017).

11. ***Haase, Martin F.***, Sharifi-Mood, N., Lee, D., & Stebe, K. J.
In situ mechanical testing of nanostructured bijel fibers.
ACS Nano, **10**, 6338–6344 (2016).

10. ***Haase, Martin F.***, Stebe, K. J., & Lee, D.
Continuous fabrication of hierarchical and asymmetric bijel microparticles, fibers, and membranes by solvent transfer-induced phase separation (STRIPS).
Advanced Materials, **27**, 7065–7071 (2015).

9. Bargteil, D., Pontani, L.-L., ***Haase, Martin F.***, & Brujić, J.
Stable patchy particles from immiscible lipid mixtures.
Biophysical Journal, **106**, 422a (2014).

8. ***Haase, Martin F.*** & Brujić, J.
Tailoring of high-order multiple emulsions by the liquid–liquid phase separation of ternary mixtures.
Angewandte Chemie International Edition, **53**, 11793–11797 (2014).

7. Pontani, L.-L., ***Haase, Martin F.***, Raczkowska, I., & Brujić, J.
Immiscible lipids control the morphology of patchy emulsions.
Soft Matter, **9**, 7150–7157 (2013).

6. Grigoriev, D. O., ***Haase, Martin F.***, Fandrich, N., Latnikova, A., & Shchukin, D. G.
Emulsion route in fabrication of micro- and nanocontainers for biomimetic self-healing and self-protecting functional coatings.
Bioinspired, Biomimetic and Nanobiomaterials, **1**, 101–116 (2012).

5. Zech, O., ***Haase, Martin F.***, Shchukin, D. G., Zemb, T., & Möhwald, H.
Froth flotation via microparticle stabilized foams.
Colloids and Surfaces A, **413**, 2–6 (2012).

4. ***Haase, Martin F.***, Grigoriev, D. O., Möhwald, H., & Shchukin, D. G.
Development of nanoparticle stabilized polymer nanocontainers with high content of the encapsulated active agent and their application in water-borne anticorrosive coatings.
Advanced Materials, **24**, 2429–2435 (2012).

3. ***Haase, Martin F.***,
Modification of Nanoparticle Surfaces for Emulsion Stabilization and Encapsulation of Active Molecules for Anti-Corrosive Coatings,
Max Planck Institute of Colloids and Interfaces, **PhD thesis**: link

2. ***Haase, Martin F.***, Grigoriev, D., Möhwald, H., Tiersch, B., & Shchukin, D. G.
Nanoparticle modification by weak polyelectrolytes for pH-sensitive Pickering emulsions.
Langmuir, **27**, 74–82 (2011).

1. ***Haase, Martin F.***, Grigoriev, D. O., Möhwald, H., & Shchukin, D. G.
Encapsulation of amphoteric substances in a pH-sensitive Pickering emulsion.
Journal of Physical Chemistry C, **114**, 17304–17310 (2010).

Patents

P1. Brujić, J. & ***Haase, Martin F.***
Higher order multiple emulsions.
US Patent 9,981,237 (2018).

P2. Lee, D., Doh, J., Kim, M., ***Haase, Martin F.***, & Duan, G.
Polyelectrolyte microcapsules and methods of making the same.
US Patent 11,040,324 (2021).

P3. ***Haase, Martin F.***, Lee, D., & Stebe, K. J.
Bijels and methods of making the same.
US Patent 11,220,597 (2022).