

EMPLOYMENT

Principal Investigator, Project 'PExAI: Predicting and explaining with AI', funded by the Hellenic Foundation for Research and Innovation, Dep. of History and Philosophy of Science, University of Athens	02/2026- 01/2028
Marie Skłodowska-Curie Post-Doctoral Fellow, Project 'CREACAL: Chemical reactions as Causes and Laws', Dep. of History and Philosophy of Science, University of Athens	7/2023- 06/2025
Post-Doctoral Research Associate in the NoMoS project, PI: Stathis Psillos, Dep. of History and Philosophy of Science, University of Athens	07/2022- 6/2023
Teaching Fellow, Dep. of History and Philosophy of Science, University of Athens	10/2021-09/2022
Post-Doctoral Research Associate in the ERC-funded 'The Metaphysical Unity of Science' project, University of Bristol	07/2019- 09/2021
Hourly-paid Teacher, University of Bristol	2015- 2021

EDUCATION

PhD in Philosophy, University of Bristol	2014- 2019
Thesis title: A Philosophical Analysis of the Relation between Chemistry and Quantum Mechanics: the case of a single inert molecule	
Supervisor: James Ladyman	
MSc Philosophy of Science, LSE	2012- 2013
Courses: Rationality & Choice, Set Theory & Logic, Philosophy of Science	
Dissertation: On the universality and ambiguity of the 2nd law of thermodynamics	
Supervisor: Miklos Rédei	
MEng Chemical Engineering, National Technical University of Athens	2006- 2012
Grade: GPA 2:1 (7.66/10)	
Dissertation: Energy-saving measures on buildings: Financial and Cost-Benefit Analysis	
Supervisor: Danae Diakoulaki	

RESEARCH INTERESTS

General issues in Philosophy of Science: Reduction, Emergence, Scientific Realism, Models & Idealisations, Feminist Philosophy of Science
Metaphysics of Science: Laws, Causation, Natural kinds, Metaphysics of relations
History and Philosophy of Chemistry: Chemical bonds, Quantum chemistry, Molecular structure

PUBLICATIONS

Books

AI in Chemistry (contract signed / submission May 2026) Elements in Philosophy of Chemistry Series, ed. by P. Thyssen (Cambridge: Cambridge University Press)

Chemistry's Metaphysics (2024). Elements in Metaphysics Series, ed. by T. Tahko (Cambridge: Cambridge University Press)

Peer-reviewed articles

- 1 Prediction and discovery in the search for chemical elements (in press) In: *The Perils and Promises of Prediction: Historical & Epistemological Perspectives*, Arabatzis T., Arapostathis S., Katsaloulis I. & A. Tympas (eds.) Boston Studies in the Philosophy & History of Science. Cham: Springer Nature

Vanessa A. Seifert

- 2 Reframing the Reduction-Emergence Debate around Chemistry In: Bryant, A. and Yates, D., (eds.) *Rethinking Emergence*. (in press) Oxford University Press
- 3 Chemical causal relations across different levels of description In: Ioannidis, S., Psillos, S. & Seifert V.A. (eds.) *Laws and powers in the Metaphysics of Science*. (in press) Routledge
- 4 Why water may not be a natural kind after all *Analisis Filosofico* (in press)
- 5 Philosophy of Chemistry: Concepts, ideas and open questions In: *Bilimlerin Felsefesi*, ed. by M. Efe Ateş and Dincer Çevik (in press) (AKADEMİM YAYINLARI)
- 6 The Many Laws of the Periodic Table *Philosophy of Science*. (2025) pp. 1-10. doi:10.1017/psa.2025.10131
- 7 Franklin, A. and Seifert, V., The Problem of Molecular Structure Just Is the Measurement Problem *British Journal for the Philosophy of Science*, (2024) 75 doi: doi.org/10.1086/715148. (2024 BJPS Popper Prize)
- 8 The value of laws in chemistry. *Foundations of Chemistry* (2024) 26, 355–368 <https://doi.org/10.1007/s10698-024-09523-z>
- 9 The Chemical Bond is a Real Pattern. *Philosophy of Science* (2022) 1-47. doi:10.1017/psa.2022.17
- 10 Do Molecules Have Structure in Isolation? How Models Can Provide the Answer. In: Lombardi, O., Martínez González, J.C., Fortin, S. (eds) *Philosophical Perspectives in Quantum Chemistry*. Synthese Library, (2022) vol 461. Springer, Cham. https://doi.org/10.1007/978-3-030-98373-4_6
- 11 The strong emergence of molecular structure, *European Journal for Philosophy of Science*, (2020) 10(3), 1-25. <https://doi.org/10.1007/s13194-020-00308-7>
- 12 Seifert, V., Ladyman, J., & Blumenthal, G. Referring to chemical elements and compounds: Colourless airs in late-eighteenth-century chemical practice', In *What is a chemical element? A collection of essays by chemists, philosophers, historians, and educators*, ed. by E. Scerri, E. Ghibaudo (2020) (Oxford: Oxford University Press)
- 13 The role of idealisations in describing an isolated molecule. *Foundations of Chemistry*, (2020) 22(1), 15-29. <https://doi.org/10.1007/s10698-019-09342-7>
- 14 Reduction and Emergence in Chemistry, *Internet Encyclopedia of Philosophy* (2019) <<https://iep.utm.edu/red-chem/>>
- 15 An alternative approach to unifying chemistry with quantum mechanics. *Foundations of Chemistry*, (2017) 19(3), 209-222.

Book reviews, Press & Online sources

- 1 'What makes a scientific breakthrough truly chemical?', *Chemistry World*, Royal Society of Chemistry (2025)
- 2 'The conceptual challenge of consumer safety', *Chemistry World*, Royal Society of Chemistry (2025)
- 3 'Chemical reactions as causes? (Part III)', *Jargonium* (2025)
- 4 'What the smell of benzene tells us about the world', *Chemistry World*, Royal Society of Chemistry (2025)
- 5 'How feminist bioethics can improve women's health', *Chemistry World*, Royal Society of Chemistry (2025)
- 6 'Chemical reactions as causes? (Part II)', *Jargonium* (2024)
- 7 'The limits of discovery', *Chalk Magazine* (2025)
- 8 'Symbols and tables in chemistry', *Chemistry World*, Royal Society of Chemistry (2025)
- 9 'Classifications, racial discrimination and Covid-19', *Chemistry World*, Royal Society of Chemistry (2025)

Vanessa A. Seifert

- 10 'The moral theories behind climate deadlock', *Chemistry World*, Royal Society of Chemistry (2025)
- 11 Seifert, V. Alexander Bird: *Knowing Science*. Oxford: Oxford University Press, 2022, 304 pp., €67.88 (Hardback), ISBN: 9780199606658. *J Gen Philos Sci* (2025). <https://doi.org/10.1007/s10838-024-09699-0>
- 12 Seifert, V. (2024). Why do philosophers disagree on how the sciences relate? A metaphilosopical analysis (Version 1). *Zenodo*. <https://doi.org/10.5281/zenodo.14411529>
- 13 Seifert, V.A. 'Chemical reactions as causes?', *Jargonium* (2024)
- 14 Seifert, V.A. 'Did AI just win the Nobel prizes in physics and chemistry?', *Chemistry World*, Royal Society of Chemistry (2024)
- 15 'How much science should there be in philosophy?', *Chemistry World*, Royal Society of Chemistry (2024)
- 16 'There's more to alchemy than its mystical nature', *Chemistry World*, Royal Society of Chemistry (2024)
- 17 'The nuances of chemical confirmation', *Chemistry World*, Royal Society of Chemistry (2024)
- 18 'Taking a feminist standpoint on chemistry', *Chemistry World*, Royal Society of Chemistry (2024)
- 19 'The rise of techno-science', *Chemistry World*, Royal Society of Chemistry (2024)
- 20 'Finding truth in beauty', *Chemistry World*, Royal Society of Chemistry (2023)
- 21 'Predicting and discovering in chemistry', *Chemistry World*, Royal Society of Chemistry (2023)
- 22 'When did chemists start to believe in atoms?', *Chemistry World*, Royal Society of Chemistry (2023)
- 23 'Chemistry's history through the feminist lens', *Chemistry World*, Royal Society of Chemistry (2023)
- 24 'Let's promote a feminist philosophy of chemistry!', *Jargonium* (2023)
- 25 'Is water H₂O? Is gold Au?', *Chemistry World*, Royal Society of Chemistry (2023)
- 26 'Does the periodic table reveal laws of nature?', *Chemistry World*, Royal Society of Chemistry (2023)
- 27 Seifert, V.A. In search of the elements. *Metascience* 32, 121–124 (2023). <https://doi.org/10.1007/s11016-022-00825-6>
- 28 'How do we know that we know', *Chemistry World*, Royal Society of Chemistry (2022)
- 29 'Are plants alive?', *Chemistry World*, Royal Society of Chemistry (2022)
- 30 Ladyman, J. & Seifert, V.A. 'The contributions of Geoffrey Blumenthal: From Copernicus's astronomy to Lavoisier's chemistry', *Jargonium* (2022)
- 31 'In search of the chemical bond', *Chemistry World*, Royal Society of Chemistry (2022)
- 32 'Philosophical mysteries around chemical reactions', *Chemistry World*, Royal Society of Chemistry (2022)
- 33 Open questions on emergence in chemistry. *Commun Chem* 5, 49 (2022).
- 34 'The different shades of sexist science', *Chemistry World*, Royal Society of Chemistry (2022)
- 35 'Rethinking our relationship to nature', *Chemistry World*, Royal Society of Chemistry (2021)
- 36 Science as a product of culture', *Chemistry World*, Royal Society of Chemistry (2021)
- 37 Franklin, A., and Seifert, V. A.'Going Quantum with Chemistry's Structures', *BJPS Short Reads* (2021)
- 38 'What's Revolutionary about the Chemical Revolution', *Chemistry World*, Royal Society of Chemistry (2021)

Vanessa A. Seifert

39 'Great expectations: How values influence decisions in Chemistry', *Chemistry World*, Royal Society of Chemistry (2021)

40 'Puzzles in Chemistry and how philosophy helps solve them', *Chemistry World*, Royal Society of Chemistry (2021)

41 'Idealisations to the Rescue', *Chemistry World*, Royal Society of Chemistry (2021)

42 'Are chemical entities real?', *Chemistry World*, Royal Society of Chemistry (2020)

43 'Strong Emergence in Chemistry', *Jargonium* (2020)

44 'Why do we still do chemistry?', *Chemistry World*, Royal Society of Chemistry (2020)

45 'Philosophy of Chemistry- is that a thing?!', *Jargonium* (2020)

46 'From quarks to quails- can the different sciences be unified?', *The Conversation* (2020)

47 'The philosophy of chemistry ... and what it can tell us about life, the universe and everything', *The Conversation* (2016)

48 Seifert, V. A. (2016) 'Essays in the Philosophy of Chemistry.' *International Studies in the Philosophy of Science*, 30:4, 415-417, 2016 (Book review)

CONFERENCES, WORKSHOPS, SYMPOSIA

Invited Talks

FunMo workshop, Durham University	2025
National Workshop in Philosophy of Science, Mumbai	2025
Emergence in Philosophy and Science workshop, Cusano University	2025
Women and Correspondence in the Nineteenth Century Workshop, University of Athens	2025
BioFun workshop, University College London	2025
Units, Symbols, and Terminology in the Physical Sciences in and for the Digital Era, Royal Society of Chemistry	2025
Dwain L Ford Guest Lecture Series of Andrews University	2025
Munich Center for Mathematical Philosophy (MCMP) Colloquium, LMU	2025
Emergence, Causality, & Complexity Workshop, Aachen University	2024
XXVIII National Congress of the Italian Chemical Society, Milan	2024
CEFISES Seminar, UC Louvain*	2024
Departmental talk, University of Athens	2024
Public Lecture, Royal Society of Chemistry Lancashire and District local section	2024
Physics at the Interface workshop, Durham University	2023
MetaScience Final Event, University of Bristol	2023
Helsinki Philosophy (TINT): Perspectives on Science seminar, University of Helsinki	2023
Cardiff Philosophy Visiting Speakers, Cardiff University	2022
Emergence and Reduction in Science and Metaphysics, University of Lisbon	2022
Seminar on Metaphysics of Science (CEFISES), UC Louvain*	2022

Vanessa A. Seifert

The Nature of Quantum Objects, Dep. of Philosophy, Un. of Geneva	2022
Harvard Foundations of Physics Mini-workshop on the Quantum Measurement Problem*	2021
Incl. Panel Discussion with Lev Vaidman, David Chalmers and Kelvin McQueen	
Meeting of the Strathclyde Computational and Theoretical Chemistry Hub, Un. of Strathclyde	2021
Department of Chemistry Weekly Seminar, Ben-Gurion University of the Negev	2021
Forum for Philosophy, London School of Economics*	2021
Panel discussion: A theory of everything?, with Philip Ball and Jessica Wilson	
Wochenendseminar zur Philosophie der Physik, University of Bremen	2020
ADHOC Association for the Discussion of the History of Chemistry, University of Cambridge	2020
FraMEPhys- MetaScience Workshop, Oxford	2019
IV POND Conference: Science and Objectivity, University of Barcelona	2019
PHASE-chimie Philosophie, Histoire, Anthropologie, Sociologie et Epistémologie de la Chimie, University Paris 7	2019
Real Patterns Workshop, University of Bristol	2018
Structure, Mechanism and Explanation in the Sciences, Durham University	2018
Association for the Discussion of the History of Chemistry, HPS, University of Cambridge	2018

Participation in conferences

PSA Around the World, online	2025
16th Conference of the Italian Society for Analytic Philosophy, Turin	2025
Society in the Metaphysics of Science conference, UCI Lugano	2025
29th Biennial meeting of the Philosophy of Science Association, New Orleans	2024
The Metaphysics of Chemistry- First International Workshop, UC Louvain	2024
27th Annual conference of the International Society for the Philosophy of Chemistry	2024
The Joint Session of the Aristotelian Society and Mind Association, University of Birmingham	2024
15th Biennial Congress of the International Society for the History of Philosophy of Science (HOPOS24), University of Vienna	2024
Conference for the 25 years of the Graduate Program in Chemical Education, University of Athens	2024
25th Conference of the International Society for the Philosophy of Chemistry Conference, Buenos Aires	2023
NoMoS Conference, University of Athens	2023
7th Panhellenic Conference in Philosophy of Science, University of Athens	2022
6th Italian Conference in Analytic Metaphysics and Ontology, University of L' Aquila	2022
27th Biennial Meeting of the Philosophy of Science Association (PSA), Baltimore	2021
The 95th Joint Session of the Aristotelian Society and Mind Association*	2021
24th Conference of the International Society for the Philosophy of Chemistry Conference, Buenos Aires (w / A. Franklin)*	2021
Departmental Seminar, Philosophy Dep., University of Bristol	2021
23rd Conference of the International Society for the Philosophy of Chemistry, University of Torino	2019
Emergence: conceptual and philosophical aspects, Dutch Institute for Emergent Phenomena	2019
Formal Methods and Science in Philosophy III, Inter-University Centre Dubrovnik	2019

Vanessa A. Seifert

XX Taller d'Investigació en Filosofia, University of Valencia	2019
5th Panhellenic Conference in Philosophy of Science, University of Athens	2018
26th Biennial Meeting of the Philosophy of Science Association (PSA), Seattle	2018
22nd Conference of the International Society for the Philosophy of Chemistry, University of Bristol	2018
Ninth European Congress of Analytic Philosophy, LMU	2017
21st Conference of the International Society for the Philosophy of Chemistry, Paris	2017
International IHPS Forum Leeds, University of Leeds	2017
Second London Philosophy of Science Graduate Conference, UCL	2016
20th Conference of the International Society for the Philosophy of Chemistry, Florida	2016
Philosophy of Science in a Forest (PSF 2016), Kaap Doorn, The Netherlands	2016
Workshop in the History and Philosophy of Chemistry, University of Bristol	2016

Symposia participations

SciData Conference, Brisbane	2025
10th Biennial meeting of the European Philosophy of Science Association (EPSA25)	2025
Annual conference of the British Society for the Philosophy of Science (BSPS 2025)	2025
27th International Congress of History of Science and Technology, New Zealand	2025
8th Panhellenic Conference on Philosophy of Science	2024
Annual conference of the British Society for the Philosophy of Science (BSPS 2024)	2024
7th Panhellenic Conference in Philosophy of Science, University of Athens	2022
28th Biennial Meeting of the Philosophy of Science Association (PSA), Pittsburgh	2022
8th Biennial European Philosophy of Science Association (EPSA) Conference, Un. of Torino	2021
British Society for the Philosophy of Science Annual (BSPS) Conference, University of Kent	2021
6th Panhellenic Conference in Philosophy of Science, University of Athens	2020
7th Biennial European Philosophy of Science Association (EPSA) Conference, Un. of Geneva	2019
British Society for the Philosophy of Science Annual (BSPS) Conference, Durham University	2019

*Recordings of these talks can be found on *Youtube*

TEACHING

University of Athens	2021- present
1. Feminist Philosophy of Science (Undergraduate)	
2. Philosophy of Science (Dept. of Chemistry- Postgraduate)	
3. 17th-18th century philosophy (Undergraduate)	
4. Special issues in Philosophy of Science (Undergraduate)	
5. History and Philosophy of Chemistry (Dept. of Chemistry- Undergraduate)	
University of Bristol	2015- 2021
1. Introduction to Philosophy A (Undergraduate)	
2. Introduction to Metaphysics (Undergraduate)	
3. Realism and Normativity (Undergraduate)	
4. Introduction to Philosophy B (Undergraduate)	
5. Philosophy of Physics (Undergraduate- postgraduate)	

REVIEWS, OUTREACH & OTHER ACTIVITIES

Reviewer for *Perspectives on Science*, *Foundations of Chemistry*, *Studies in History and Philosophy of Modern Physics*, *Analysis*, *Ergo*, *Journal for General Philosophy of Science*, *Chemistry-a European Journal*, *European Journal for the Philosophy of Science*, *Journal of Chemical Education*, *Synthese*,

Writer of column Thought Experiments, *Chemistry World* magazine, Royal Society of Chemistry

Section Editor of Philosophy of Chemistry in 'Comprehensive Philosophy of Science' (Editor-in-Chief, Sven-Ove Hansson, pub. by Elsevier)

Co-creator, co-editor & Writer of jargonium.com

Member of the scientific committe for the 2026 Beilstein Dialogues Symposium of the Beilstein Institute 2026

Co-editor of *Laws and powers in the Metaphysics of Science*. Routledge (In Press) 2026

Member of the program committee of the Society for the Metaphysics of Science (SMS) 2022, 2026, 2024, 2025, 2026 conference 2026

Member of the programme committee of the 10th Biennial Conference of the European Philosophy of Science Association (EPSA25) 2025

Participation in the **Researchers at School** initiative of the ERC with the talk "Philosophising about Science" delivered to students of the Protupo Evaggeliki Sxoli Smyrnis 2024

Member of the organising committee of the 7th Panhellenic Conference on Philosophy of Science, University of Athens 2022

Co-host of the International Society for the Philosophy of Chemistry Annual Conference, Bristol 2018

Co-organiser of the Workshop on the History and Philosophy of Chemistry, Un. of Bristol 2016

Assistant content producer of the Centre of Science and Philosophy, University of Bristol 2015

Interview in *BBC Radio*, *Chem Magazine* (published by *American Chemical Society*), *Physics World* <[link](#)>, *ScienceMe* podcast (in Greek)

GRANTS & AWARDS

2024 BJPS Popper Prize Winner for the paper 'The problem of molecular structure just is the measurement problem, co-written with A. Franklin' 2024

Marie Skłodowska-Curie Post-Doctoral Fellow, Project 'CREACAL: Chemical reactions as Causes and Laws' 2022

SHAC Award 2022 (Subject Development award from the Society for the History of Alchemy and Chemistry) for the further development of *Jargonium* 2022

PSA2018 Travel Grant, Philosophy of Science Association, USA 2018

Jacobsen Studentship, The Royal Institute of Philosophy 2017- 2018

Darwin Trust of Edinburgh Postgraduate Studentship 2014- 2017