

Alan J. Roche
Brief Curriculum Vitae, 2026

Education

B.A., 1969, Chemistry, Beloit College, Beloit, Wisconsin
Ph.D., 1975, History of Science, University of Wisconsin-Madison

Positions at Case Western Reserve University

1978	Assistant Professor of History of Science and Technology
1984	Associate Professor of History of Technology and Science
1993	Professor of History (Department of History)
1995	Henry Eldridge Bourne Professor of History
2012	Distinguished University Professor Emeritus (current)
2016	Henry Eldridge Bourne Professor of History Emeritus (current)

Selected Awards and Honors

Carl F. Wittke Award for Excellence in Undergraduate Teaching, CWRU, 1988
Outstanding Paper Award (American Chemical Society, History Division), 1992
Visiting Scholar, Max-Planck-Institut für Wissenschaftsgeschichte, Berlin, 1999 and 2003
Dexter Award for Outstanding Contributions to the History of Chemistry, 2000
Fellow, American Association for the Advancement of Science, 2000
Liebig-Wöhler Freundschafts-Preis, Lewicki Foundation, Göttingen, 2002
Membre correspondant, Académie Internationale d'Histoire des Sciences, 2007
Chair, Section for History & Philosophy of Science, AAAS, 2009
Fellow, American Chemical Society, 2012
Distinguished University Professor, 2012
Franklin-Lavoisier Prize (Science History Institute and Maison de la Chimie), 2020

Sole-Authored Books

Chemical Atomism in the Nineteenth Century: From Dalton to Cannizzaro (Columbus: Ohio State University Press, 1984)
The Quiet Revolution: Hermann Kolbe and the Science of Organic Chemistry (Berkeley/Los Angeles: University of California Press, 1993)
Nationalizing Science: Adolphe Wurtz and the Battle for French Chemistry (Cambridge, MA: MIT Press, 2001)
Image and Reality: Kekulé, Kopp, and the Scientific Imagination (Chicago: University of Chicago Press, 2010)
Constructing Modern Chemistry: J. B. Dumas and the French Atom (Chicago: University of Chicago Press, 2027)

Translated and Edited or Co-Edited Books

Justus von Liebig und Hermann Kolbe in ihren Briefen, 1846-1873 (Mannheim: Bionomica Verlag, 1994), edited and with an introduction by A. J. Roche and Emil Heuser
From the Molecular World: A Nineteenth-Century Science Fantasy [by Hermann Kopp], translated, annotated and introduced by A. J. Roche (Heidelberg and New York: Springer, 2012)
A Global History of Research Education: Disciplines, Institutions, and Nations, 1840-1950 (Oxford University Press, 2021), edited by Ku-Ming Chang and Alan Roche
A Cultural History of Chemistry, 6 volumes (London: Bloomsbury, 2021), co-general editors Peter Morris and Alan Roche
Lothar Meyer: Modern Theories and Pathways to Periodicity (Cham: Birkhäuser, 2022), by Gisela

Boeck and Alan Rocke
Lothar Meyer: Moderne Theorien und Wege zum Periodensystem (Berlin: Springer Spektrum, 2022),
by Gisela Boeck and Alan Rocke

Selected Refereed Articles

- “Atoms and Equivalents: The Early Development of the Chemical Atomic Theory,” *Historical Studies in the Physical Sciences*, **9** (1978), 225-63.
- “Gay-Lussac and Dumas: Adherents of the Avogadro-Ampère Hypothesis?” *Isis*, **69** (1978), 595-600.
- “The Reception of Chemical Atomism in Germany,” *Isis*, **70** (1979), 519-36.
- “Kekulé, Butlerov, and the Historiography of the Theory of Chemical Structure,” *British Journal for the History of Science*, **14** (1981), 27-57.
- “Subatomic Speculations and the Origin of Structure Theory,” *Ambix*, **30** (1983), 1-18.
- “Agricola, Paracelsus, and ‘Chymia’,” *Ambix*, **32** (1985), 38-45.
- “Hypothesis and Experiment in the Early Development of Kekulé’s Benzene Theory,” *Annals of Science*, **42** (1985), 355-81.
- “Kolbe Versus the Transcendental Chemists: The Emergence of Classical Organic Chemistry,” *Ambix*, **34** (1987), 156-68.
- “‘Between Two Stools’: Kolbe, Kopp, and the History of Chemistry,” *Bulletin for the History of Chemistry*, **7** (1990), 19-24 (winner of 1992 Outstanding Paper Award, American Chemical Society, History Division).
- “Berzelius’ Animal Chemistry: From Physiology to Organic Chemistry, 1805-14,” in Tore Frängsmyr and Evan Melhado, eds., *Enlightenment Science in the Romantic Era: The Chemistry of Berzelius and Its Cultural Setting* (Cambridge University Press, 1992), pp. 107-131
- “Kekulé’s Benzene Theory and the Appraisal of Scientific Theories,” in A. Donovan, L. Laudan, and R. Laudan, eds., *Scrutinizing Science: Empirical Studies of Scientific Change* (Boston: Kluwer, 1988), pp. 145-61.
- “Research Groups and Group Research in German Chemistry: Kolbe’s Marburg and Leipzig Institutes,” *Osiris*, [2] **8** (1993), 51-79.
- “Pride and Prejudice in Chemistry: Chauvinism and the Pursuit of Science,” *Bulletin for the History of Chemistry*, **13-14** (1993), 29-40.
- “History and Science, History of Science: Adolphe Wurtz and the Renovation of the Academic Professions in France,” *Ambix*, **41** (1994), 20-32.
- “Pride and Prejudice in Chemistry: Kolbe, Hofmann, and German Antisemitism,” in Yakov Rabkin and Ira Robinson, eds., *The Intersection of Jewish and Scientific Cultures* (Lewiston, NY: Mellen Press, Jewish Studies volume 14, 1995), pp. 127-59.
- “Organic Analysis in Comparative Perspective: Liebig, Dumas, and Berzelius, 1811-1840,” in T. Levere and F. L. Holmes, eds., *Instruments and Experimentation in the History of Chemistry* (MIT Press, 2000), pp. 273-310.
- “Celebrity Culture in Nineteenth-Century Parisian Chemistry,” Dexter Award Address, *Bulletin for the History of Chemistry*, **26:2** (2001), 81-91.
- “In Search of Eldorado: John Dalton and the Origins of the Atomic Theory,” *Social Research*, **71:4** (Spring 2005), 125-58. Translated/re-published as “En busca de El Dorado: John Dalton y los orígenes de la teoría atómica,” in *El atomismo en química*, ed. Inés Pellón González (Publicaciones de la Universidad de Alicante, 2012), pp. 105-146
- “Origins and Spread of the ‘Giessen Model’ in University Science, 1826-1876,” *Ambix*, **50** (2003), 90-115. Re-published in *Berichte der Justus-Liebig-Gesellschaft*, **8** (2005), 209-35; also in Klaas van Berkel and Ernst Homburg, eds., *The Laboratory Revolution and the Creation of the Modern*

- University, 1830-1940* (Amsterdam University Press, 2022), pp. 32-64.
- “Restaging Liebig: A Study in the Replication of Experiments,” *Annals of Science*, **62** (2005), 1-55 (by M.C. Usselman, A. J. Rocke, C. Reinhart, and K. Foulser).
- “What Did ‘Theory’ Mean to Nineteenth-Century Chemists?,” *Foundations of Chemistry*, **15** (2013), 145-56.
- “Vinegar and Oil: Materials and Representation in Organic Chemistry,” in Carsten Reinhardt and Ursula Klein, eds., *Objects of Chemical Inquiry* (Sagamore Beach MA: Science History Publications, 2014), pp. 47-60.
- “Women and Chemistry in Regency England: New Light on the Marcet Circle,” by Jeffery Leigh and Alan Rocke, *Ambix*, **63** (2016), 28-45.
- “The ‘Indifferent Hypothesis’ Redux: The Dilemmas of Pierre Duhem,” *Historical Studies in the Natural Sciences*, **47** (2017), 268-92.
- “Theory versus Practice in German Chemistry: Erlenmeyer Beyond the Flask,” *Isis*, **109** (2018), 254-75.
- “Ideas in Chemistry: The Pure and the Impure,” *Isis*, **109** (2018), 577-86. Partial translated republication: “Trois types de théorie dans la chimie du XIX^e siècle,” in *Philosophie de la chimie*, ed. Bernadette Bensaude-Vincent and Richard-Emmanuel Eastes (Paris: De Boeck, 2020), 155-58.
- “Englishing Kopp,” *Isis*, **109** (2018), 753-59.
- “Lothar Meyer’s Path to Periodicity,” *Ambix* **66** (2019), 265-302.
- “A Woman’s Life Alongside Chemistry: The Memoirs of Theresa Kopp Baumann,” *Ambix* **68** (2021), 1-27.
- “The Rise of Academic Laboratory Science: Chemistry and the ‘German Model’ in the Nineteenth Century,” *History of Universities* **34:1** (Oxford University Press, 2021), 41-64.
- “New Perspectives on Gay Lussac and the Law of Combining Volumes of Gases,” in *Kagakushi: Journal of the Japanese Society for the History of Chemistry* (2025).
- “Atomic Theory and the Nineteenth-Century Origins of Chemical Practice,” in Carsten Reinhardt, ed., *Oxford Handbook of the History of Modern Chemistry* (Oxford University Press, 2027).