

Ursula Klein



The winner of the 2016 HIST Prize for Outstanding Achievement in the History of Chemistry is Professor Dr. Ursula Klein, Senior Research Scholar at the Max Planck Institute for the History of Science in Berlin.

Professor Klein's first academic study was chemistry and biology at the Free University of Berlin, and she subsequently taught those subjects for a few years at the secondary level. She then studied history of science and philosophy at the Free University and the University of Konstanz, where she received a Ph.D. (*summa cum laude*) in 1993 and the Habilitation in 2000. Her Ph.D. thesis was published in 1994 as *Verbindung und Affinität: Die Grundlegung der neuzeitlichen Chemie* as an exploration of the meaning of "chemical compound" in the 18th century. She became a Research Scholar at the Max Planck Institute in 1995 and an unscheduled Professor at the University of Konstanz in 2007, where she occasionally teaches. Klein has had several visiting professorships, for example at Harvard University from 1996 to 1998 and at the Dibner Institute for the History of Science and Technology in Boston in 1997-98.

Klein's second book *Experiments, Models, Paper Tools. Cultures of Organic Chemistry in the 19th Century* (2003) broke new ground and has been hailed by historian Mary Jo Nye as "a compelling history not only of a transformation in paper tools and in theoretical explanations of

chemical reactions, but of what Alan Rocke has called a quiet revolution of plant and animal chemistry (rooted in natural history, medicine and pharmacy) into carbon chemistry.” Rocke himself has praised Klein’s originality in demonstrating a hitherto invisible turning point when chemical formulas began to be used as “paper tools” in the 1830s before the quiet revolution of the 1850s.

One of Klein’s major contributions lies in the study of chemistry as a science of materials. Her book *Materials in Eighteenth-Century Science: A Historical Ontology*” (2007, co-authored with Wolfgang Lefèvre) brilliantly examines methods of identification and classification of materials, for example, by composition or by provenance, and the everyday practices of chemists in the decades before and after the so-called revolution of Lavoisier. The two themes of chemical practice as useful knowledge and chemists as expert scientist-technicians are found in Klein’s new book *Humboldts Preussen: Wissenschaft und Technik im Aufbruch* (2015). In addition to the notable figure of Alexander von Humboldt, scientific experts such as Andreas Sigismund Marggraf, Franz Carl Achard, Carl Abraham Gerhard and Martin Heinrich Klaproth are presented as active chemical workers in the service of their country.

In addition to these four major monographs, Klein is the editor of seven volumes of collected papers and symposia and of numerous journal articles and book chapters. Her strengths as a scholar, teacher, and research leader have been summarized by the chemist and historian Stephen Weininger as “focused scholarship with a will to fruitfully transgress disciplinary boundaries while maintaining high standards for scholarship and attention to rigorous technical and philosophical detail.” Klein was elected to the Nationale Akademie der Wissenschaft (Leopoldina) in 2008.

The History of Chemistry Division is proud to award its 2016 Prize for Outstanding Lifetime Achievement in the History of Chemistry to Ursula Klein.