

Write Like a Chemist is a unique guide to chemistry-specific writing. Written with National Science Foundation support and extensively piloted in chemistry courses nationwide, it offers a structured approach to writing that targets four important chemistry genres: journal article, conference abstract, scientific poster, and research proposal. Chemistry students, post-docs, faculty, and other professionals interested in perfecting their disciplinary writing will find it an indispensable reference.

Users of the book will learn to write through a host of exercises, ranging in difficulty from correcting single words and sentences to writing professional-quality papers, abstracts, posters, and proposals. The book's read-analyze-write approach teaches students to analyze what they read and then write, paying attention to audience, organization, writing conventions, grammar, and science content, thereby turning the complex process of writing into graduated, achievable tasks. Concise writing and organizational skills are stressed throughout, and "move structures" teach students conventional ways to present their stories of scientific discovery. This resource includes over 350 excerpts from ACS journal articles, ACS conference abstracts, and successful NSF CAREER proposals, excerpts that will serve as useful models of chemistry writing for years to come.

Other special features:

- Usable in chemistry lab, lecture, and writing-dedicated courses
- Useful as a writing resource for practicing chemists
- Augmented by language tips that address troublesome areas of language and grammar in a self-study format
- Accompanied by a Web site: <http://www.oup.com/us/writelikeachemist>
- Supplemented with an answer key for faculty adopting the book

"This work distills into one reference a skill set that is too often assumed by the field to be 'something you just learn' or is somehow gained through exposure and osmosis. The authors have tackled an enormous task in this text by presenting the content as both a 'teachable' text and a desk reference to be revisited as needed."

—**Timothy Vail**, Northern Arizona University

"This is an outstanding text for the novice science writer as well as the experienced professional. *Write Like a Chemist* beautifully satisfies the need for a practical writing text aimed specifically at the chemical sciences that has long gone unfulfilled."

—**Ellen Fisher**, Colorado State University

"In my opinion, *Write Like a Chemist* is a text that fills a critical void in the education of writers of science. This particular book is unlike anything else that is currently on the market. I wholeheartedly believe that it will change the way we teach undergraduates how to 'write like a chemist.'"

—**Timm Knoerzer**, Nazareth College

"With this text, almost any chemistry faculty member can teach writing in the chemistry genre. That is what makes it so useful."

—**Donald Paulson**, California State University

Cover Image: © Hu Xiao Fang, 2008, used under license from Shutterstock.com

Cover Design: Pamela Pease

OXFORD
UNIVERSITY PRESS

www.oup.com

ISBN 978-0-19-530507-4



9 780195 305074

Contents

Section 1 *Writing Modules*

Chapter 1 *Learning to Write Like a Chemist* 5

Module 1 *The Journal Article* 31

Chapter 2 *Overview of the Journal Article* 33

Chapter 3 *Writing the Methods Section* 57

Chapter 4 *Writing the Results Section* 111

Chapter 5 *Writing the Discussion Section* 163

Chapter 6 *Writing the Introduction Section* 199

Chapter 7 *Writing the Abstract and Title* 241

Module 2 *The Scientific Poster* 271

Chapter 8 *Writing the Conference Abstract and Title* 273

Chapter 9 *Writing the Poster Text* 293

Chapter 10 *Designing the Poster* 335

Module 3 *The Research Proposal* 357

Chapter 11 *Overview of the Research Proposal* 359

Chapter 12 *Writing the Goals and Importance Section* 387

Chapter 13 *Writing the Experimental Approach Section* 433

Chapter 14 *Writing the Outcomes and Impacts Section* 479

Chapter 15 *Writing the Project Summary and Title* 501

Section 2 *Graphics, References, and Final Stages of Writing*

Chapter 16 *Formatting Figures, Tables, and Schemes* 523

Chapter 17 *Formatting Citations and References* 543

Chapter 18 *Finalizing Your Written Work* 569

Appendix A *Language Tips* 583

Audience and Purpose 584

Writing Conventions 601

Grammar and Mechanics 612

Word Usage 634

Appendix B *Move Structures* 659

• **Sources of Excerpts** 667

References 685

Index 687