Discover how to use HILIC to analyze and better understand polar compounds

An increasingly popular analytical method, hydrophilic interaction chromatography (HILIC) has the ability to retain and separate polar compounds that are often difficult to analyze by reversed-phase high-performance liquid chromatography (HPLC) or other analytical methods. Offering a comprehensive review, this book enables readers to develop a fundamental understanding of how HILIC works and then apply that knowledge to develop and implement a variety of practical applications.

*Hydrophilic Interaction Chromatography* begins with discussions of HILIC retention mechanisms, stationary phases, and general method development. This sets the foundation for the book's extensive coverage of applications. The authors address unique separation challenges for bioanalytical, environmental, pharmaceutical, and biochemical applications. Moreover, there is a thorough discussion of HILIC in two-dimensional chromatography.

With contributions from leading analytical scientists who have extensive experience in HILIC as well as HPLC, *Hydrophilic Interaction Chromatography* serves as a practical guide for researchers, featuring:

- Detailed examples of HILIC methods and development approaches
- Thorough explanations of retention mechanisms and the impact of stationary phase and mobile phase properties on separations
• Step-by-step guidance for developing efficient, sensitive, and robust HILIC methods

• References to the primary literature at the end of each chapter

*Hydrophilic Interaction Chromatography* is written for scientists who use or develop analytical methods for the separation of polar compounds. In particular, these researchers will discover how HILIC can be used to analyze and better understand the composition of pharmaceutical, bioanalytical, biochemical, chemical, food, and environmental samples.

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**ABOUT THE AUTHOR**

**BERNARD A. OLSEN, PhD,** has close to three decades of experience at Eli Lilly and Company in chemistry, manufacturing, and control of drug substances and drug products. He contributed to the development and support of more than twenty-five commercialized drugs as well as numerous developmental drugs. A Fellow of the American Association of Pharmaceutical Scientists, Dr. Olsen currently provides consulting and training services to the pharmaceutical industry and serves as Chair of the USP Expert Committee on Monograph Development: Small Molecules 3.

**BRIAN W. PACK, PhD,** is a Research Advisor in Analytical Sciences R&D at Eli Lilly and Company, where he has contributed to the development of many solid oral and parenteral dosage forms. He is recognized for his contributions to HPLC method development, raw material control strategies, genotoxic impurities, cleaning validation, and colorimetry. Dr. Pack has published on the topics of HILIC applications, Raman spectroscopy, mass spectrometry, dissolution, and cleaning verification.

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