

New Approaches to the Characterization of Drug Candidates by Solid-State NMR

**Frederick G. Vogt,¹ Jacalyn S. Clawson,¹ Mark Strohmeier,¹
Tran N. Pham,² Simon A. Watson² and Andrew J. Edwards²**

¹*Chemical Development, GlaxoSmithKline plc., King of Prussia, PA*

²*Chemical Development, GlaxoSmithKline plc., Stevenage, Hertfordshire SG1 2NY, UK*

1 INTRODUCTION

Solid-state NMR (SSNMR) spectroscopy is a commonly applied analytical technique in pharmaceutical development. Reviews of the pharmaceutical applications of SSNMR have recently appeared (1–4); texts in the field of solid-state pharmaceutical chemistry also include detailed discussions and applications of SSNMR (5–8). This chapter attempts to summarize the current status and latest developments in the field of applied pharmaceutical SSNMR from an industrial perspective, focusing on the utility of the technique during the development of a drug from the candidate stage through to a marketed, approved product. Particular attention is given to the latest approaches to the

Pharmaceutical Sciences Encyclopedia: Drug Discovery, Development, and Manufacturing,

Edited by Shayne C. Gad

Copyright © 2010 John Wiley & Sons, Inc.