

Handbook of

ION SOURCES

Edited by
Bernhard Wolf, Ph.D.

GSI Center for Heavy Ion Research
Darmstadt, Germany



CRC Press

Boca Raton New York London Tokyo

TABLE OF CONTENTS

Chapter 1	
Fundamental Processes	1
<i>I. Brown</i>	
Chapter 2	
Characteristics of Ion Sources	23
<i>B.H. Wolf, K.N. Leung, B. Sharkow, R. Becker, T. Jolly, G. Alton, and J. Ishikawa</i>	
Chapter 3	
Production of Ions from Nongaseous Materials	331
<i>B.H. Wolf</i>	
Chapter 4	
Beam Formation and Transport	365
<i>P. Spädtke</i>	
Chapter 5	
Ion Beam Diagnosis	385
<i>P. Strehl</i>	
Chapter 6	
Ion Source Electronics and Microwave Generators for Ion Sources	453
<i>H. Horneff and F. Bourg</i>	
Chapter 7	
Computer Codes	519
<i>P. Spädtke</i>	
Index	529