

Solid State Luminescence

Theory, materials and devices

Edited by

A.H. Kitai

Department of Materials Science and Engineering and Engineering Physics
McMaster University, Ontario, Canada



CHAPMAN & HALL

London · Glasgow · New York · Tokyo · Melbourne · Madras

Contents

<i>List of contributors</i>	vii
<i>Preface</i>	ix
1 Principles of luminescence <i>A.H. Kitai</i>	1
2 Luminescent centres in insulators <i>G. Blasse</i>	21
3 Luminescence spectroscopy <i>U.W. Pohl and H.-E. Gumlich</i>	53
4 One-photon rare earth optical transitions: recent theoretical developments <i>G.W. Burdick and M.C. Downer</i>	97
5 Thin film electroluminescence <i>G.O. Müller</i>	133
6 Powder electroluminescence <i>S.S. Chadha</i>	159
7 Thin film electroluminescence devices <i>R. Mach</i>	229
8 Light emitting diodes: materials growth and properties <i>S.P. DenBaars</i>	263
9 Atomic layer epitaxy of phosphor thin films <i>B.W. Sanders</i>	293
10 Lamp phosphors <i>T.E. Peters, R.G. Pappalardo and R.B. Hunt, Jr</i>	313
11 Phosphors for other applications <i>G. Blasse</i>	349
<i>Index</i>	373