

CONTENTS

CONTRIBUTORS	vii
PREFACE	ix
FUTURE CONTRIBUTIONS	xi

Scanning Cathodoluminescence Microscopy

CHAD M. PARISH AND PHILLIP E. RUSSELL

I. Introduction	2
II. Types of Cathodoluminescence Experiments	29
III. Advances in CL Instrumentation and Theory	45
IV. Active Fields of Cathodoluminescence Research	64
V. Other Cathodoluminescence Topics	101
VI. Summary	114
References	115

Fuzzy Transforms: A Challenge to Conventional Transforms

IRINA PERFILIEVA

I. Introduction	138
II. Residuated Lattice	139
III. Semilinear Spaces	142
IV. Spaces of Functions: Fuzzy Sets	146
V. Fuzzy Transforms in a Semilinear Functional Space	148
VI. Inverse F^\uparrow (F^\downarrow)-Transforms	152
VII. Approximation by Inverse F-Transforms	156
VIII. Fuzzy Transform in a Linear Space	158
IX. Applications of F-Transform	176
X. Application of the F-Transform to Image Fusion	188
XI. Conclusion	194
References	195