771 SCI

CONTENTS

1. History **1**

2. The Photographic Sensor **5**

2.1 Elementary Process 5

2.2 Spectral Sensitization 13

2.3 Theory of Development 25

2.4 Photographic Properties and Their Control 37

3. Manufacture of Photographic Materials **43**

3.1 Emulsions 43

3.2 Emulsion Supports 62

3.3 Coating 75

3.4 Packaging 83

4. Black-and-White Photography **83**

4.1 Negative-Positive Processes 83

4.2 Reversal Processes 88

4.4 Silver Halide Diffusion Processes 102

5. Color Photography **103**

5.1 Additive Color Processes 103

5.2 Subtractive Color Processes 104

5.3 Processing of Color Photographic Materials 123

5.4 Silver-Dye Bleach Process 134

5.5 Dye Diffusion Processes 137

5.6 Making of Color Prints 144

6. Photographic Properties and Their Measurement **151**

6.1 Sensitometry and Densitometry 151

6.2 Tonal Reproduction and Image Structure 167

6.3 Color Reproduction 180

7. Nonphotographic Properties and Their Measurement **193**

7.1 hardening 193

7.2 Dry Properties 194

7.3 Wet Properties 198

8. Photographic Materials and Applications **201**

8.1 Photographic Plates 201

8.2 Films 203

8.3 Photographic Papers 213

8.4 Holography and holographic Recording Materials 228

9. Environmental Aspects of Photographic Processing **233**

10. Economic Aspects **235**
11. References **237**
12. Index **251**