## CONTENTS

Ι.	INTRODUCTION	1
11.	THE PHYSICS OF OCEAN COLOR REMOTE SENSING	3
	A. Irradiance Ratio and Upwelling Subsurface Radiance	6
	B. Atmospheric Effects	19
111.	IN - WATER ALGORITHMS	24
	A. The Phytoplankton Pigment Algorithms	26
	B. The 'K' Algorithms	36
	C. The Seston Algorithms	41
	D. The Analytic Algorithm	42
	E. Relationship Between the Algorithms	47
	1. Relationships Between the Radiance	
	Ratios r <sub>ii</sub>	48
	2. Seston-Pigment Relationships	49
	3. Pigment-'K' Relationships	55
	4. Preliminary Conclusions	62
IV.	ATMOSPHERIC CORRECTION	68
v.	APPLICATION OF THE ALGORITHMS TO	
	CZCS IMAGERY	72
VI.	SUMMARY AND CONCLUSIONS	80
VII.	APPENDIX I: THE COASTAL ZONE COLOR	
	SCANNER (CZCS)	84
VIII.	APPENDIX II: RECENT DEVELOPMENTS	87
	A. Clear Water Radiance Concept	87
	B. Accuracy of Pigment Estimates	91
	C. Applications	96
IX.	REFERENCES	103