CONTENTS

List	OF CONT	RIBUT	ORS		٠			•					\mathbf{v}
For	EWORD	•			•								xiii
Pre	FACE	•		•			•	•	•		٠		xv
Con	TENTS OF	Volu	ме А		•	•						•	xxi
				Im	age Tı	ıbe A	ssessn	ent					
Res	olving Pov	ver of	Image	e Tub	es. B	y S. I	IASEG	AWA		•		•	553
Calc	culation of A. M. STA									age T	ube.	By ·	567
Inte	nsifiers: D Function										Tran	sfer	577
On	the Qualit Intensifie								h the	Use	of Im	nage	589
Leis	tungsgren and J. K			itsyste	ems m •	iit Bil	dverst	ärker	. Ву	G. A	. Gro	SCH .	603
Info	rmation T						ge In	$ ext{tensif}$	iers.	By V	V. K t	HL,	615
The	Useful Lu Noise Lin												629
Ima	ge Intensi By R. L.									w Lig	ht-lev	vels.	635
The	Observat By W. H			ing St	tructu	res w	ith X	-Ray	Ima	ge Int	tensifi	iers.	647
A (Quadratur Czekalov					ourie	r Ana	alyser	. I	By G	. w.	A.	653
Con	trast-enha surface S								ion o	f Inpu	ıt Ph	oto-	661
Imp	rovement Photocat									rters	with	S·1	677
The	Fundame Affected GEBEL.												685
Cos	mic Rays	and I	mage	Inten	sifier	Dark	Curre	nt. I	ву W	. N. (Char	MAN	705
Dar	k Current Randali		illatio	ons of	Casc	ade l	mage	Inte	nsifie	rs. I	By R	. Р.	713
Con	nparison o with Kod	f the I										and •	725

xviii contents

Linearity of Electronographic Emulsions. By M. J. Smyth and P. W. J. L. Brand
Methods of Increasing the Storage Capacity of High-gain Image Intensifier Systems. By J. R. Powell and R. Lynds
Applications in Astronomy
A Critical Comparison of Image Intensifiers for Astronomy. By W. A. BAUM
The Design of Optical Systems for Use with Image Tubes. By C. G. WYNNE AND M. J. KIDGER
An Image-tube Spectrograph for the Hale 200-in. Telescope. By E. W. Dennison, M. Schmidt and I. S. Bowen
Performance of the Spectracon in Astronomical Spectroscopy. By M. F. Walker
Recent Astronomical Applications of a Spectracon. By P. W. J. L. Brand and R. D. Wolstencroft
Études d'Astres Faibles en Lumière Totale avec la Caméra Électronique. By G. Wlérick
A Search for Molecular Hydrogen in the Interstellar Medium. By J. E. BECKMAN AND D. W. EGAN
The Application of SEC Camera Tubes and Electrostatic Image Intensifiers to Astronomy. By M. Green and J. R. Hansen
Low Light-level Television
Applications of the Image Isocon Tube. By P. R. Groves and R. J. Corps
Television at Low Light-levels by Coupling an Image Intensifier to a Plumbicon. By D. G. TAYLOR, C. H. PETLEY AND K. G. FREEMAN
Integrating Television Sensors for Space Astronomy. By J. L. LOWRANCE AND P. M. ZUCCHINO
The Application of High-gain Image Intensification and Closed-circuit Television to Field-ion Microscopy. By G. K. L. Cranstoun
Miscellaneous Applications
Characteristics of a Television Photometer. By Y. Nozawa
An Image-tube Fourier Spectrograph. By A. LABEYRIE
A Cascade Image Intensifier Camera for Beam-foil Spectroscopy. By J. A. Jordan, Jr., G. S. Bakken and A. C. Conrad, Jr
Test of a High-resolution Čerenkov Chamber with a Four-stage Image Intensifier. By R. Giese, O. Gildemeister and G. Schuster
Contrôle des Monocristeaux par Tube Intensificateur de Luminance. By B. Driard
Photon Interference Experiments Utilizing Photoelectronic Devices. By G. T. REYNOLDS

CONTENTS xix

Multichannel Photon Counters	
A New Multiplier System with Forty Separate Channels. By M. HERRMANN AND C. KUNZE	955
Position-sensitive Photon Counters. By P. IREDALE, G. W. HINDER AND D. W. S. SMOUT.	965
Digital Read-out of an Image Intensifier Using a Vidicon or a Scanning Spiral Slit plus a Digital Memory Oscilloscope. By H. S. Wise, E. W. T. RICHARDS AND R. MARTIN	981
Applications in High-speed Photography	
Tubes Obturateurs pour Photographie Ultra-rapide au Temps de Pose d'une Nanoseconde. By G. ESCHARD AND R. POLAERT	989
Time Resolution Limitations in Single-stage Image Converter Photography. By N. Ahmad, B. C. Gale and M. H. Key	999
The Application of the Electron Image Store and Analyser to High-speed Photography. By R. W. SMITH	1011
A High-gain Time-resolving Spectrograph for Diagnostics of Laboratory Simulated Re-entry Objects. By I. D. Liu and J. R. Baskett.	1021
Application of Image Intensifiers and Shutter Tubes to the Study of Gas Discharges. By K. H. WAGNER	1033
A High Speed Photographic Study of the Electrical Breakdown of Small Gaps in Vacuum. By W. A. Smith, P. A. Chatterton, C. T. Elliott and D. L. Pulfrey	1041
Applications in Computing	
A Charge Image Storage Tube for Character Recognition. By R. L. BEURLE AND G. W. JENKINSON	1043
A Storage Image Tube for Optoelectronic Computing. By B. L. Morgan, R. W. Smith and G. A. Wilson	1051
Solid-state Devices	
Recent Developments in Field-effect Image Storage Panels. By B. KAZAN AND D. P. FOOTE	1059
Recent Developments in Solid-state Infra-red Image Converters. By T. Kohashi, T. Nakamura, S. Nakamura and K. Miyaji	1073
Solid-state Radiographic Amplifiers and Infra-red Converters. Z. SZEPESI AND M. NOVICE	1087
AUTHOR INDEX	1099
SUBJECT INDEX	1107