

TABLE OF CONTENTS

Nuclear Medicine Imaging Instrumentation.....	1
Martin L. Nusynowitz and Anthony R. Benedetto	
Physics Principles of Computed Tomography	37
William D. McDavid, Robert G. Waggener, and Michael J. Dennis	
Diagnostic Ultrasound — Physical Principles and Equipment	81
Paul L. Carson	
Electroradiography (Xeroradiography) — Equipment and Physical Principles	123
Larry A. DeWerd	
✓ Purchasing Diagnostic X-Ray Equipment and Initial Acceptance Tests.....	147
William R. Hendee and Raymond P. Rossi	
Measurement of Modulation Transfer Functions.....	159
Gopala U. Rao	
Measurement of Image Noise	181
Gopala U. Rao and Panos P. Fatouros	
Practical Sensitometry in Medical Imaging	195
Joel E. Gray and Arthur G. Haus	
✓ Basic Quality Control in Diagnostic Radiology.....	229
N. T. Winkler	
Quality Control Procedures for Nuclear Medicine Instruments	259
James G. Kereiakes and Richard J. Van Tuinen	
Computers in Nuclear Medicine	289
David A. Weber, George A. Wilson, and Robert E. O'Mara	
Quality Assurance and Radiation Exposure Levels in Computed Tomography	311
J. Thomas Payne and Edwin C. McCullough	
Room Design and Radiation Protection Surveys for High Energy Medical Electron Accelerators	335
Earl Van Roosenbeek	
Room Design and Protection Surveys for Diagnostic and Orthovoltage X-Ray Units	359
Krishnadas Banerjee and Jack S. Krohmer	
Effects of Ionizing Radiations on Humans	375
Earle C. Gregg	
In Vivo Dosimetry of Beta and Gamma-Emitting Radiopharmaceuticals	413
James G. Kereiakes and Paul A. Feller	