

Contents

Preface.....	iii
1. Introduction.....	1
1.1 Scope.....	1
1.2 Measurement of Fluence.....	1
1.3 Exposure.....	1
1.4 Principles of Absorbed Dose Measurement.....	2
2. Determination of Absorbed Dose by Ionization Methods...	4
2.1 Measurement of Cavity Ionization and Application of the Bragg-Gray Principle.....	4
2.2 Utilization of Calibrated Exposure Meters to Determine Absorbed Dose.....	6
3. Determination of Absorbed Dose by Chemical Methods...	9
3.1 Selection of Dosimeter.....	9
3.2 Use of the Ferrous Sulfate Dosimeter.....	10
3.3 Determination of Absorbed Dose in Water and its Uncertainty.....	12
4. Determination of Absorbed Dose by Calorimetric Methods..	12
4.1 Principles of Calorimetry.....	12
4.2 Uncertainty in the Determination of Absorbed Dose in Reference Material.....	14
4.3 Transfer of Absorbed Dose Calibration to a Point in Water...	15
4.4 Uncertainties in the Determination of Absorbed Dose in Water Using a Combination of Calorimeter and Transfer...	16
5. Transfer of an Absorbed Dose Calibration to Another Center.....	16
5.1 Effect of Differences in Maximum Photon Energy.....	17
5.2 Effect of Differences in Filtration.....	17
5.3 Uncertainties in the Use of an Absorbed Dose Meter.....	17
6. Conclusions.....	18
Appendix A. Average Values of the Ratio of the Mass Stopping Powers.....	19
Appendix B. Standard Conditions for Absorbed Dose Calibrations.....	22
References.....	23
ICRU Reports.....	27
Index.....	29