



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 9706.236-2021

**Medical electrical equipment - Part 2-36: Particular
requirements for the basic safety and essential performance of
equipment for extracorporeally induced lithotripsy**

Issued on: December 1, 2021

Implemented on: May 1, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

201.1 Scope, purpose and related standards	1
201.2 Normative references	2
201.3 Terms and Definitions	2
201.4 General requirements	3
201.5 General requirements for ME equipment testing	4
201.6 Classification of ME equipment and ME systems	4
201.7 ME equipment identification, marking and documentation	4
201.8 Protection of ME equipment against electric shock hazard	5
201.9 Protection of ME equipment and ME system against mechanical hazards	5
201.10 Protection against unwanted or excessive radiation hazards (sources)	6
201.11 Protection against over-temperature and other hazards (sources)	6
201.12 Accuracy of controllers and instruments and protection of dangerous outputs	6
201.13 Dangerous conditions and fault states of ME equipment	7
201.14 Programmable Medical Electrical System (PEMS)	7
201.15 Structure of ME equipment	7
201.16 ME System	7
201.17 Electromagnetic compatibility of ME equipment and ME systems	7
202 *Electromagnetic Compatibility---Requirements and Tests	8
Appendix	9
Appendix AA (informative) Special guide and principle explanation	10
Appendix BB (informative) Coordinate definition, focus and target position	11
Reference	12

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is part 2-36 of GB 9706 "Medical Electrical Equipment". GB 9706 has released the following parts.

---Part 1. General requirements for basic safety and basic performance;

---Part 1-3.General requirements for basic safety and basic performance Parallel standard.
Radiation protection of diagnostic X-ray equipment;

---Part 2-1.Special requirements for the basic safety and basic performance of electron
accelerators with energy from 1MeV to 50MeV;

---Part 2-2.Special requirements for the basic safety and basic performance of
high-frequency surgical equipment and high-frequency accessories;

---Part 2-3.Special requirements for basic safety and basic performance of shortwave
treatment equipment;

---Part 2-5.Special requirements for the basic safety and basic performance of ultrasonic
physical therapy equipment;

---Part 2-6.Special requirements for the basic safety and basic performance of microwave
therapy equipment;

---Part 2-8.Special requirements for the basic safety and basic performance of therapeutic
X-ray equipment with an energy of 10kV to 1MV;

---Part 2-11.Special requirements for the basic safety and basic performance of gamma
beam therapy equipment;

---Part 2-12.Special requirements for the basic safety and basic performance of intensive
care ventilators;

---Part 2-13.Special requirements for the basic safety and basic performance of the
anesthesia workstation;

---Part 2-16.Specific requirements for the basic safety and basic performance of
hemodialysis, hemodiafiltration and hemofiltration equipment;

---Part 2-17.Special requirements for the basic safety and basic performance of automatic
control brachytherapy after-installation equipment;

---Part 2-18.Specific requirements for the basic safety and basic performance of
endoscopic equipment;

---Part 2-19.Special requirements for basic safety and basic performance of infant
incubators;

---Part 2-24.Special requirements for basic safety and basic performance of infusion pumps
and infusion controllers;

---Part 2-25.Special requirements for basic safety and basic performance of
electrocardiograph;

---Part 2-26.Special requirements for the basic safety and basic performance of EEG
machines;

---Part 2-27.Special requirements for basic safety and basic performance of ECG monitoring equipment;

---Part 2-28.Special requirements for the basic safety and basic performance of medical diagnostic X-ray tube components;

---Part 2-29.Specific requirements for the basic safety and basic performance of radiotherapy simulators;

---Part 2-36.Special requirements for the basic safety and basic performance of in vitro lithotripsy equipment;

---Part 2-37.Special requirements for the basic safety and basic performance of ultrasonic diagnostic and monitoring equipment;

---Part 2-39.Special requirements for the basic safety and basic performance of peritoneal dialysis equipment;

---Part 2-43.Special requirements for the basic safety and basic performance of interventional X-ray equipment;

---Part 2-44.Special requirements for the basic safety and basic performance of X-ray computed tomography equipment;

---Part 2-45.The basic safety and basic performance of mammography equipment and mammography stereotaxic devices

Require;

---Part 2-54.Special requirements for the basic safety and basic performance of X-ray photography and fluoroscopy equipment;

---Part 2-60.Special requirements for basic safety and basic performance of dental equipment;

---Part 2-63.Special requirements for the basic safety and basic performance of extraoral imaging dental X-ray machines;

---Part 2-65.Specific requirements for the basic safety and basic performance of dental X-ray machines for intraoral imaging.

This document replaces GB 9706.22-2003 "Medical Electrical Equipment Part 2.Special Requirements for the Safety of In Vitro Induced Lithotripsy Equipment", and

Compared with GB 9706.22-2003, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Added the term "energy flow density", "single pulse energy", "stone crushing equipment" (see.201.3.201,.201.32,.201.3.206);

---Added basic performance requirements (see.201.4.3.11);

---Added the minimum, typical and maximum output energy settings of the energy flow density, including the technical parameters of the time integration limit [see 201.7.9.3.101d)].

This document uses the redrafting method to modify and adopt IEC 60601-2-36.2014 "Medical Electrical Equipment Part 2-36.In Vitro Induced Fragmentation

Special requirements for basic safety and basic performance of stone equipment.

The technical differences between this document and IEC 60601-2-36.2014 and the reasons are as follows.

---Regarding normative reference documents, this document has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in.201.2 "Normative Reference Documents", and the specific adjustments are as follows.

* Replace IEC 60601-1.2005 with GB 9706.1-2020, which is modified to adopt international standards;

* Replace IEC 60601-1-2.2007 with YY9706.102-2021 which is modified to adopt international standards;

* The IEC 60601-2-5.2009, which is not normatively cited in the text, is transferred to the reference.

The following editorial changes have been made to this document.

---The term index is deleted.

Introduction

Medical electrical equipment safety standards are also known as the 9706 series of standards, which consist of general standards, parallel standards, special standards, guidelines and interpretations.

---General standards. Medical electrical equipment should be generally applicable to safety standards, that is, equipment that meets the definition of medical electrical equipment should meet this

Basic standard requirements.

---Parallel standards. Medical electrical equipment should be generally applicable to safety standards, but in most cases it is limited to certain specific functions or features.

Sexual equipment only needs to meet the requirements of such standards.