

## 1600kV Impulse Voltage Generator

**Purpose:** This equipment is used for power supply in the following kinds of research.

- Diagnosis technology for lifetime evaluation of electric power equipment
- Insulation technology for next-generation electric power equipment such as environmentally- friendly gas-insulated equipment
- Technology development for discharge guiding by laser
- Withstand voltage tests of electric power equipment

### Main Specifications:

1. Maximum charging voltage: 1600kV
2. Charging energy: 80kJ
3. Generation waveform: Standard lightning impulse ( $1.2/50 \mu s$ ), Standard switching impulse ( $250/2500 \mu s$ )
4. Voltage generation efficiency:
  - Standard lightning impulse = 85% or more
  - Standard switching impulse = 80% or more (the maximum voltage is 1000kV)
5. Charging time: 60 seconds or less (at the maximum charging voltage)
6. Generating repetition time: 1shot/min (at the maximum charging voltage)

### Location and Date of Installation

Electric Power Engineering Research Laboratory, May 2003

