

LUYOR-3450 Cell Phototoxicity Irradiator can automatically carry out testing and in vitro experiments of various potentially phototoxic cosmetics, chemical raw materials, etc. LUYOR-3450 complies with OECD, EU, and GB/T standards.

Cytotoxicity is the action of chemical substances on the basic structure or physiological processes of cells, leading to cell survival, proliferation, and function disorders, causing adverse reactions, and even injury and death. The phototoxicity of cells means that certain chemicals are excited to an excited state under the irradiation of a light source of certain wavelengths. This excited state shows toxicity and kills cells or induces cell-specific changes.

Applications

- Cellular phototoxicity: ideal for photodynamic and photothermal therapy, and evaluation of cellular phototoxicity of photosensitive drugs
- Photoinduced drug release: use light to control photosensitive drugs to achieve controlled release of drugs.
- Photo-curing: UV LED light can be used in photo-cured resin molding, photo-cured adhesives, photo-cured coatings, photo-cured inks, etc.
- Photo-induced deformation: utilize photochemistry and photo-physical effects to develop new photo-induced deformation materials.
- Optogenetics: use light to control light-sensitive proteins to demonstrate cell activities.
- High-throughput photochemical reactions: ideal for photocatalyst development and screening of photochemical synthesis reaction conditions.

Technical Data

- Power supply: 100-220 VAC, 50 Hz
- Capacity: 2 standard 96-well plates
- Fixed program: UVA intensity 1.69 mw/cm², 50 minutes
- UVA intensity range: 1.3-2.5 mw/cm²
- Light source: three to five 365nm 8w UV tubes
- Irradiation chamber: 26cm wide, 32cm deep, 15cm high
- Built-in 365nm UV sensor for detecting UV radiation energy.
- Sensor accuracy: $\pm 5\%$
- Microprocessor controlled: the irradiation energy and irradiation time can be set independently.
- The sensor collects data 5 times per second, and the CPU calculates the remaining irradiation energy in real time.
- Energy setting range: 0.025-99.99J/cm²
- Time setting range: 0-599.5 minutes
- Dual fan cooling: irradiation chamber temperature is lower than 37 degrees.

