UV Laboratory Reactor System 3

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The standard Laboratory Reactor System 3 is a simple immersion-type photochemical reactor for basic experiments. The irradiation is effected by means of a special low pressure UV lamp (15 Watt), operated by utilizing a vertically arranged immersion tube, immersed into the reaction liquid. An upgrade to UV Laboratory Reactor System 2 is possible later on, whenever it's intended to use the TQ 150 medium pressure lamp with forced cooling.

Specific characteristics

- Optical path: < 2cm
- 15 W of electrical power
- Generally adapted for liquid phase photolyses
- Flux domain (liquid reaction systems): mL $^{-1}$ up to a few L h^{-1}
- Efficient for photolyses, sensitized and photochemicaly initiated reactions
- Sources of irradiation: VUV, UV
- No thermoregulation required

Advantageous applications

- One of the most frequently used reactor configuration at laboratory scale
- Very useful for product analyses, kinetic investigations and quantum yield determinations as well as for chemical process development
- Photolyses and homogeneous sensitized and photochemicaly initiated reactions

Technical data	
Lamp type	TNN 15/32
Lamp power	15 W
Doping (optional)	-
Total immersion length	370 mm
Immersion length - center of concentration of rays	n.a.
Effective arc length (electrode gap)	170 mm (lighting lenght)
Average lamp lifetime	approx. 4.000 hours
Lamp lifetime warranty	1.500 hours, < 25% intensity drop down in the UVC range
Working volume	approx. 700 ml with inserted immersion tube
Connections	1 x NS 45/40, 2 x NS 14,5/23, 1 x GL 25
Pump flow rate	n.a.
Material of immersion tube	Quartz glass
Material of cooling tube	n.a.
Connection cooling water circuit	Hose olives Ø 10
Power supply	VG TNN 15/32
Mains voltage / Frequency	230 V / 50 Hz
Pre-fuse	max. 16 A

UV-Consulting Peschl®
advanced ultraviolet technology

- Equipment for disinfection of
  - Air
  - Water
  - Surfaces
  - Packaging materials
- Immersion lamps for industrial photochemistry
  - Laboratory
  - R&D
  - Production
- Engineering and consultancy services
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