Excimer Laboratory Reactor

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Excimer Laboratory Reactor Systems exhibit immersion lamp systems that are specially designed for the use of these light sources. Their operation at high voltage and frequency requires different and more stringent security conditions that are leading to a larger lamp head in comparison to conventional arcs.

Specific characteristics

- Quasi-monochromatic irradiation
- Usually up to 120 W electrical power
- Optical path: < 2cm
- Generally adapted for liquid phase photolyses
- Optimum specificity of the electronic excitation
- Efficient for photolyses, sensitized and photochemicaly initiated reactions
- Sources of irradiation: VUV, UV
- Efficient thermoregulation possible
- High variability of the electrical lamp power
- Relative moderate incident photon densities

Advantageous applications

- Recommended for high value-adding preparative tasks 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	ELR 222/150 LR* (222nm) , ELR 308/150 LR* (308nm)
Lamp power	<120 Watt
Doping (optional)	n.a.
Total immersion length	n.a.
Immersion length - center of concentration of rays	n.a.
Effective arc length (electrode gap)	140 mm
Average lamp lifetime	approx. 2.000 hours
Lamp lifetime warranty	1.000 hours, < 30% intensity drop down in the UVC range (222nm), respectively < 30% intensity drop down in the UVB range (308nm)
Working volume	750 ml with inserted cooling tube
Connections	1 x screw joint , 1 x NS 29/32, 2 x GL 18
Pump flow rate	approx. 1000 ml/min. at 2000 rpm.
Material of immersion tube	n.a.
Material of cooling tube	Quartz glass
Connection cooling water circuit	Hose olives Ø 10
Power supply	HFEVG 12*
Mains voltage / Frequency	230 V / 50 Hz
Pre-fuse	max. 16 A

* upon request

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