EvoluChem™ By HepatoChem | PhotoRedOx Box™

Screen easily with standardized format

The EvoluChem PhotoRedOx Box™ is the photoreactor choice for chemists who seek to standardize laboratory photochemical setups economically. A flexible design allows interchangeable LEDs from 365 to 808 nm and a wide variety of vials.

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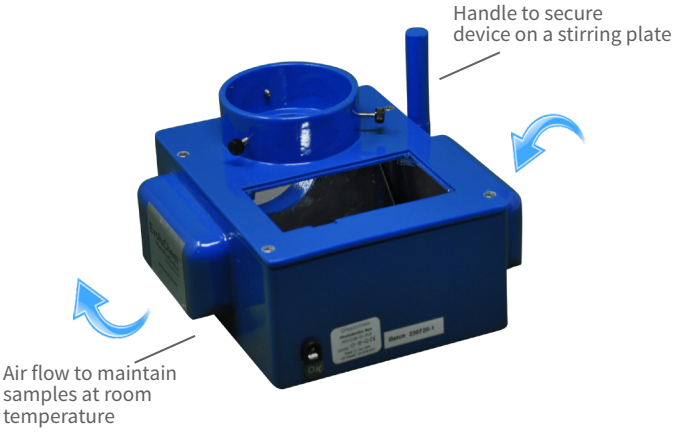
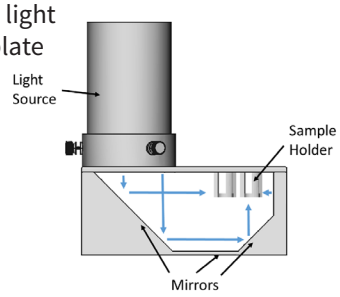


Our original photoreactor's patented design is compatible with most vial formats (0.3 ml, 2 ml, 4 ml, 8 ml and 20 ml vials) and its compact design allows for use with any stirring plate. A built-in fan keeps the reaction conditions at room temperature.

Features

- Interchangeable LED from 365 nm to 808 nm
- Chamber designed to evenly distribute light
- Magnetic stirring on standard stirring plate
- Flexible vial formats
- Cooling by fan to maintain experiment at room temperature
- Pre-designed array of catalysts and reagents available
- Flow reactor available



Unique geometry to focus light on samples

Benefits

- Easy setup on a standard stirring plate
- Perform up to 32 reaction conditions simultaneously
- Individually sealed vials enable flexible study design
- Save your substrate using low scale reaction conditions
- Save time on optimization

Specifications	HCK1006-01-016
Vial size	0.3 ml to 20 ml
Samples/reaction	32 max
Flow	2 ml Flow Cell available
Suggested light source	1x - EvoluChem™ LEDs PF or DX Format
Compatible LEDs	Compatible with most PAR20 (2.5 in diameter style LED) sources
Wavelengths available	multiple options from 365nm to 808 nm
Light intensity	based on the attached LED source
Dimmable	based on the attached LED source
Temperature Control	Built in fans hold internal reactor temp. ~30 °C depending on light source
Chiller fittings	N.A.
Suggested chiller	N.A.
Stirring	external stir plate required
Dimensions L x W x H	16.5 x 16.2 x 12.5 cm
Power requirements	110V AC/ 12V DC (US/UK) or 220V AC/ 12V DC (EU)
Operating requirements	external stir plate, light source, chemical fume hood (if applicable), protective eyewear, safety shield
Related accessories	Lights Holders Flow Cell EvoluChem™ kits Safety Accessories

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EvoluChem™ By HepatoChem | PhotoRedOx Box Duo™

Screen with double the workflow

Meet our photoreactor with double-capacity: The EvoluChem PhotoRedOx Duo™. It's the choice for the chemist who seeks higher reaction capacity and increased light intensity than found in the PhotoRedOx Box™.

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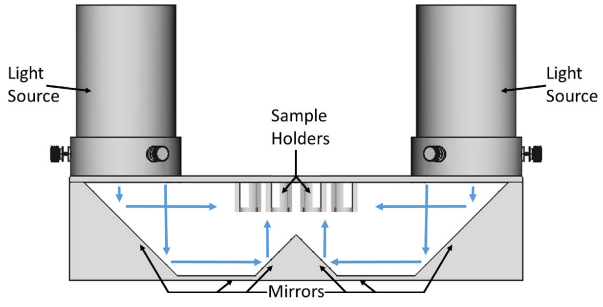
This photoreactor with double-capacity leverages the same patented concept (US Patent #10,906,022) as the original PhotoRedOx Box™. PhotoRedOx Duo™ increases the reaction vials capacity to 16 vials (2, 4 or 8 ml) using 2 of the same vial holders as the PhotoRedOx Box™. Using the 2 blue LED setup allows to increase reaction rate of difficult reaction conditions.

Features

- Interchangeable LED from 365 nm to 808 nm
- Chamber designed to evenly distribute light
- Magnetic stirring on standard stirring plate
- Flexible vial formats
- Cooling by fan to maintain experiment at room temperature
- Pre-designed array of catalysts and reagents available
- Flow reactor available

Benefits

- Easy setup on a standard stirring plate
- Perform up to 64 reaction conditions simultaneously
- Individually sealed vials enable flexible study design
- Save your substrate using low scale reaction conditions
- Save time on optimization



Easy setup and compact design

Specifications	HCK1006-01-023
Vial size	0.3 ml to 20 ml
Samples/reaction	64 max
Flow	2 ml Flow Cell available
Suggested light source	2x - EvoluChem™ LEDs PF or DX Format
Compatible LEDs	Compatible w most PAR20 (2.5 in diameter style LED) sources
Wavelengths available	multiple options from 365nm to 808 nm
Light intensity	based on the attached LED source
Dimmable	based on the attached LED source
Temperature Control	Built in fans hold internal reactor temp. ~30 °C depending on light source
Chiller fittings	N.A.
Suggested chiller	N.A.
Stirring	external stir plate required
Dimemsions L x W x H	27.5 x 17.5 x 12.5 cm
Power requirements	110V AC/ 12V DC (US/UK) or 220V AC/ 12V DC (EU)
Operating requirements	external stir plate, light source, chemical fume hood (if applicable), protective eyewear, safety shield
Related accessories	Lights Holders Flow Cell Light proofing Upgrade EvoluChem™ kits Safety Accessories

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EvoluChem™ By HepatoChem | PhotoRedOx Box TC™

Screen with temperature control

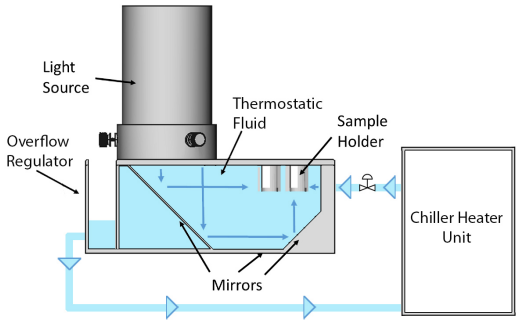
The EvoluChem PhotoRedOx Box TC™ (Temperature Controlled) is the chemist's choice for a temperature controlled photoreactor that provides the flexibility and precision of the PhotoRedOx Box™.

Advion Interchim scientific®

All the benefits of the PhotoRedOx Box™ with temperature control from 0°C to 80°C. The unique reaction chamber geometry directs light throughout, allowing the performance of multiple reaction conditions simultaneously. However, with the aluminum-based, waterproof PhotoRedOx TC™, it is possible to heat and cool the reaction medium using a thermostatic fluid (such as water or ethylene glycol) that recirculates through a standard chiller/heater unit.

Features

- Interchangeable LED from 365 nm to 808 nm
- Chamber designed to evenly distribute light
- Magnetic stirring on standard stirring plate
- Flexible vial formats
- External recirculatory needed to heat/chill reaction vessel
- Pre-designed array of catalysts and reagents available
- Flow reactor available



Featured Heater/Chiller Unit:

While most common chiller/heater units can be used with the PhotoRedOx Box TC™.

Specifications	HCK1006-01-025
Vial size	0.3 ml to 20 ml
Samples/reaction	32 max
Flow	2 ml Flow Cell available
Suggested light source	1x - EvoluChem™ LEDs PF or DX Format
Compatible LEDs	Compatible w most PAR20 (2.5 in diameter style LED) sources
Wavelengths available	multiple options from 365nm to 808 nm
Light intensity	based on the attached LED source
Dimmable	based on the attached LED source
Temperature Control	External heater/chiller allows operature being 0 °C to 80 °C
Chiller fittings	3/8 inch ID tubing
Suggested chiller	KISS K6
Stirring	external stir plate required
Dimemsions L x W x H	20 x 17.5 x 12 cm
Power requirements	N.A.
Operating requirements	chiller/heater unit, external stir plate, light source, chemical fume hood (if applicable), protective eyewear, safety shield
Related accessories	Lights Holders Flow Cell EvoluChem™ kits Safety Accessories

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EvoluChem™ | LUCENT360™

By HepatoChem

Screen, batch, and flow

The EvoluChemLucent360™ Advanced Photoreactor is the photoreactor choice for chemists serious about understanding all the factors necessary to take reaction from screen to scale in batch and flow.

Advion Interchim scientific®

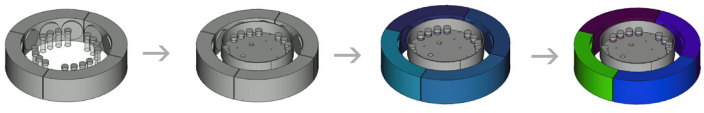
The most advanced photoreactor available anywhere.
The Lucent360's patent pending design provides the most flexibility for parallel, batch and flow photochemistry with light intensity and temperature control in one device. Termperature control enabled by an external heater/ chiller unit, enabling temperature controlled experiment conditions. Light irradiation by custom, interchangeable light modules that surround the reaction chamber. The reaction chamber itself is comprised of 2 glass walls (Dewar) that thermally insulate light sources from the reaction vials.

Features

- Multiple vial formats and configurations (from 0.3ml to 700 ml)
- 20 ml or 50 ml flow cell available
- Temperature controlled (0° to 80° C) with thermostatic fluid
- Interchangeable LED light modules (254 nm through 808 nm)
- Heavy duty magnetic stirring
- Pre-set your favorite experiments for quick repeatability
- Time course experiments: parallel or in sequence

Benefits

- Unparalleled control of light wavelengths and intensities
- Investigate quantum yield with light irradiance screening
- Multiple reactor vessels enable parallel, batch, flow reaction, and light and wavelength screening



Specifications	HCK1021-01-001
Vial size	0.3 ml to 700 ml
Samples/reaction	48 max
Flow	20 ml & 50 ml Flow Cells available
Suggested light source	4x - Lucent360™ side lights 1x - Lucent bottom module
Compatible LEDs	Lucent360™ side and bottom LED modules
Wavelengths available	multiple options from 254nm to 808 nm
Light intensity	controlled by instrument
Dimmable	Yes
Temperature Control	External heater/chiller allows operature being 0 °C to 80 °C
Chiller fittings	3/8 inch OD tubing
Suggested chiller	KISS K6
Stirring	built-in stir plate
Dimemsions L x W x H	53.5 x 38 x 51 cm
Power requirements	120 V or 240 V
Operating requirements	chiller/heater unit, chemical fume hood (if applicable)
Related accessories	Multi-light screener 700 ml Reactor 20 ml Flow cell 50 ml Flow cell

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EvoluChem™ By HepatoChem | Photochemistry Lights

EvoluChem™ LEDs: designed specifically for photo-catalytic chemistry applications

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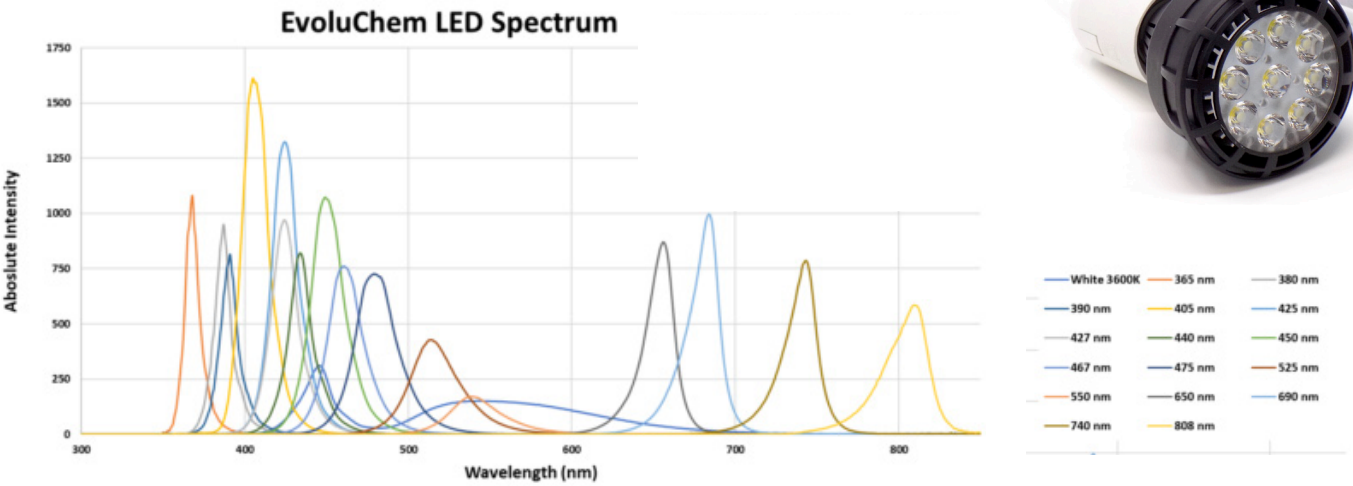
They fit all of the EvoluChem™ PhotoRedOx boxes and are designed to irradiate all samples with maximum efficiency. The LED chips are selected for specific wavelengths of 365 nm, 380 nm, 390 nm, 405 nm, 425 nm, 427 nm, 440 nm, 450 nm, 467 nm, 475 nm, 525 nm, 550 nm, 650 nm, 690 nm, 740 nm, 808 nm and 6200K white.



Product & Part Number	Wavelength	Relative Irradiance*
EvoluChem™ LED 365PF HCK1012-XX-011	365 nm	9 mW/cm²
EvoluChem™ LED 380PF HCK1012-XX-013	380 nm	8 mW/cm²
EvoluChem™ LED 390PF ** HCK1012-XX-018	390 nm	14 mW/cm²
EvoluChem™ LED 405PF HCK1012-XX-010	405 nm	28 mW/cm²
EvoluChem™ LED 425PF HCK1012-XX-012	425 nm	33 mW/cm²
EvoluChem™ LED 427PF ** HCK1012-XX-020	427 nm	NA
EvoluChem™ LED 440PF ** HCK1012-XX-021	440 nm	23 mW/cm²
EvoluChem™ LED 450PF ** HCK1012-XX-002	450 nm	34 mW/cm²
EvoluChem™ LED 467PF ** HCK1012-XX-022	467 nm	28 mW/cm²
EvoluChem™ LED 475PF HCK1012-XX-003	475 nm	23 mW/cm²

Product & Part Number	Wavelength	Relative Irradiance*
EvoluChem™ LED 525PF ** HCK1012-XX-004	525 nm	10 mW/cm²
EvoluChem™ LED 550PF HCK1012-XX-023	550 nm	NA
EvoluChem™ LED 650PF HCK1012-XX-014	650 nm	20 mW/cm²
EvoluChem™ LED 690PF HCK1012-XX-024	690 nm	NA
EvoluChem™ LED 740PF HCK1012-XX-015	740 nm	20 mW/cm²
EvoluChem™ LED 808PF * HCK1012-XX-025	808 nm	20 mW/cm²
EvoluChem™ LED 6200PF HCK1012-XX-005	Cold White	29 mW/cm²
EvoluChem™ LED 365DX HCK1012-XX-006	365 nm	25 mW/cm²
EvoluChem™ LED 450DX HCK1012-XX-008	450 nm	55 mW/cm²

* Average relative irradiance as measured in the PhotoRedOx Box™

** Indicates lower-cost alternatives to Kessil™ LEDs

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EvoluChem™ By HepatoChem | Accesories

Blue light protection

Safety First: We offer photochemistry eye protection including protective screens, glasses and blue light protection equipment. High-powered LED light sources, particularly in the UV spectrum, are known to be damaging to your eyes. Our special glasses and safety screens are there to protect your eyesight during reactions. We also offer hoods for your vial holders to eliminate light from outside the reaction chamber.

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Product & Part Number	Description	
UV Safety Glasses HCK1015-01-001	Skyper Eyewear, Orange Lens, Polycarbonate, UVextreme AF, Black Frame, TPU, UVEX/Honeywell S1933X	
Protective Screen HCK1015-01-002	Desiged to fit inside standard chemistry hoods and limit direct exposure to photochemical light. The specific color of the screen is 100% effective at blocking all ultraviolet wavelengths. It curs off light at or below 540 nm wavelength and works great for UV curing operations	

Vial Holders in Multiple Formats

These Photoredox Box™ Vial Holders are designed for our PhotoRedOx Box™, our PhotoRedOx Box Duo™, and our PhotoRedOx Box TC™. They are compatible with most vial formats (0.3 ml, 2 ml, 4 ml and 20 ml vials).

Product & Part Number	Description	
Vial Holder HCK1006-01-017	32 x 0.3 ml vials photochemistry holder	
Vial Holder HCK1006-01-018	8 x 2 ml vials photochemistry holder	
Vial Holder HCK1006-01-019	8 x 4 ml vials photochemistry holder	
Vial Holder HCK1006-01-020	8 x 8 ml vials photochemistry holder	
Vial Holder HCK1006-01-021	2 x 20 ml vials photochemistry holder	

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