hoenle

UV PHOTOLYSIS MOLECULAR TRANSFORMATION

Individually developed for your benefits:

UV Photoreactors
UV Lamps and Accessories
Photochemical applications
Chemical installations
Industrial use

www.hoenle.com

UV PHOTOLYSIS
MOLECULAR TRANSFORMATION

TOGETHER WITH THE BEST – FOR MEASURABLE EXCELLENCE

UV-based photolysis processes enable the targeted opening and deformation of molecular com-pounds – a crucial step in the development of novel active ingredients and chemical compounds. Thanks to special UV spectra, photochemical reactions can be controlled and individually adapted to a wide variety of molecular structures. This creates efficient synthesis options – ideal for demanding pharmaceutical and chemical applications. With over 60 different UV spectra, individual adaptation to existing falling film or flow reactors is possible. Customers can benefit from our innovative research opportunities through to series production. Even temperature-sensitive processes can be carried out safely and effectively.

PHOTOCHEMISTRY WITH UTMOST PROCESS RELIABILITY

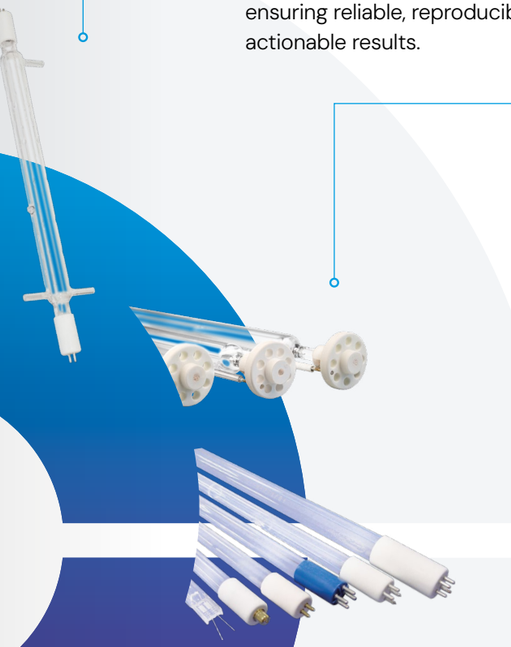
When molecules are exposed to ultraviolet radiation, chemical changes can be initiated. Taking into account suitable wavelengths and the molecular structure itself, molecules can be transformed. High-energy UV radiation plays a particularly important role, as it is capable of splitting or ionizing molecules. The excited molecule can undergo various reactions, such as the splitting of bonds, the formation of new bonds or the transfer of electrons.

PHOTOANALYSIS

UV-based photoanalysis provides fast, precise monitoring of TN, TP and TOC levels. By tracking changes in light absorption, it enables real-time quality control and process optimization in laboratories and industrial applications, ensuring reliable, reproducible and actionable results.

HOENLE UV LAMPS – MOLECULES IN CONTROL

In photolysis, the quality of UV lamps is crucial. Only powerful, stable emitters ensure maximum reaction speed, reliable breakdown of organic molecules and reproducible results in water treatment, industrial processes and research applications. High-performance UV lamps also provide energy efficiency, long service life and precise wavelength control.
This enables a consistent, safe and environmentally friendly operation across all photolytic systems.



PREMIUM LED SOURCES

UV LEDs are invaluable for photolytic processes thanks to their precise wavelength control, instant on/off capability and long operational life. They provide consistent, intense UV radiation for efficient breakdown of organic compounds without chemical additives. Compact and energy-efficient, they enable flexible integration in water treatment, industrial processes and labs, ensuring reliable, reproducible and eco-friendly results.

SERVICE AND SUPPORT

Leverage the strongest network of expertise – from scientists and lab staff to precision-manufactured UV components. Highly trained specialists provide support remotely or on-site, ensuring optimal assistance to help achieve your goals efficiently and reliably.

ARE YOU LOOKING FOR SOMETHING SPECIAL? TALK TO US.

We will develop a solution tailored precisely to your requirements.

Hoenle UV Disinfection GmbH
Gewerbegebiet Ost 6
98693 Ilmenau
Germany

Tel.: +49 36785 520-0
disinfection@hoenle.com

www.hoenle.com