

Heraeus

**Think UV.
Think Heraeus.**



Inspiring. Visionary. Heraeus.



From invention to application.

Ultraviolet processes usually take place at the beginning or the end of the industrial process chain. They are crucial – because the way they are carried out determines a product's quality before it is passed to the next step. There is only one opportunity to make a first impression. That is why meeting your process challenges is our primary concern.

The first UV quartz lamp was invented in 1904.

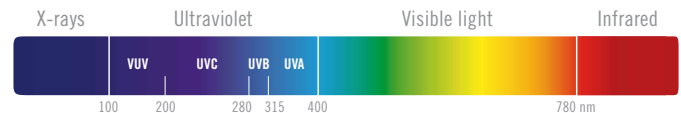
At Heraeus, of course. This isn't the only occasion Heraeus has proved it is well ahead of its time. Since then, countless innovations right up to combined applications with UV and infrared have confirmed our position as an inventor, pioneer and technology leader.

We offer a complete portfolio of UV solutions featuring the full spectrum of technology, from systems with gas discharge lamps to LEDs and lamps triggered by microwaves.

Innovative strength has shaped the work we do for you, from the very beginnings of our company to present day. That's why our UV products fulfill the highest standards. You can rest assured in the knowledge that, with UV pioneer Heraeus at your side, you can achieve your goals now and in the future.

INFO // What is UV radiation?

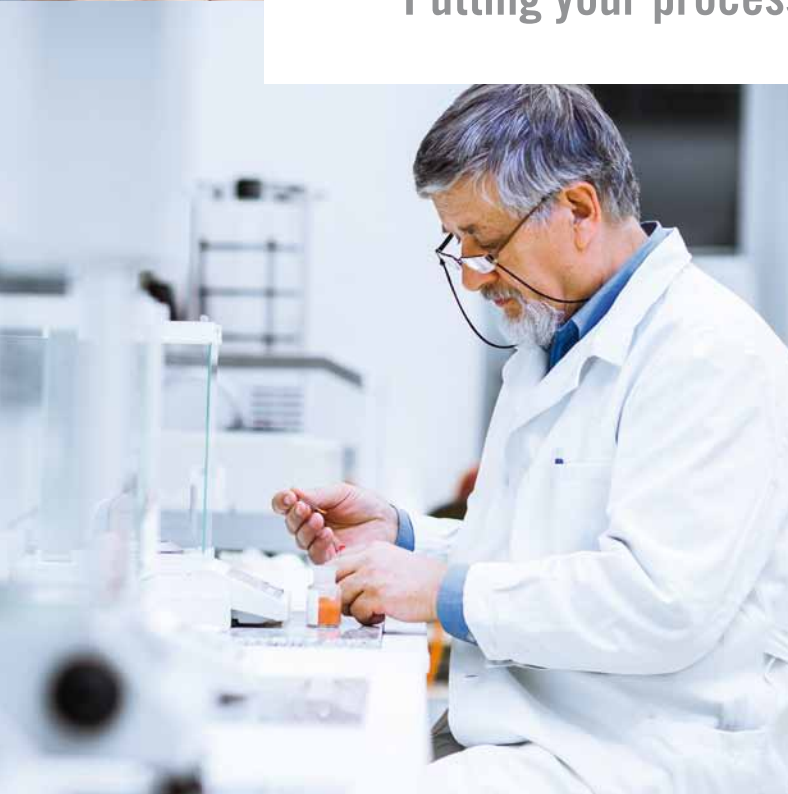
Ultraviolet radiation is invisible. It consists of electromagnetic waves in the spectrum from 100 to 400 nm. Ultraviolet radiation can be divided into several groups (UV-A, -B and -C), each with different biological effects and technical areas of application, from disinfection and surface cleaning and treatment, to reducing pollutants in water and air.



Images: The Unicorn pharmacy in Hanau (above right). This is where company founder Wilhelm Carl Heraeus (above left) discovered how to melt platinum in 1856. The first 'German platinum melting house' was born.



Putting your processes in the right light.



Due to our many years of experience and our expertise, we know and understand your processes – that means we are always able to offer you the best possible solution. We are constantly seeking to exceed our own boundaries and set new standards.

Your success is our success.

Our employees don't just think creatively, they also think with you. They are not afraid to offer uncommon solutions that may not have occurred to you – solutions that are created through thinking together as partners. Solutions that release hidden potential, open up new opportunities and help you to achieve success. After all, your success is our success!

Closer to the customer.

Our applications centers and measurement laboratories.

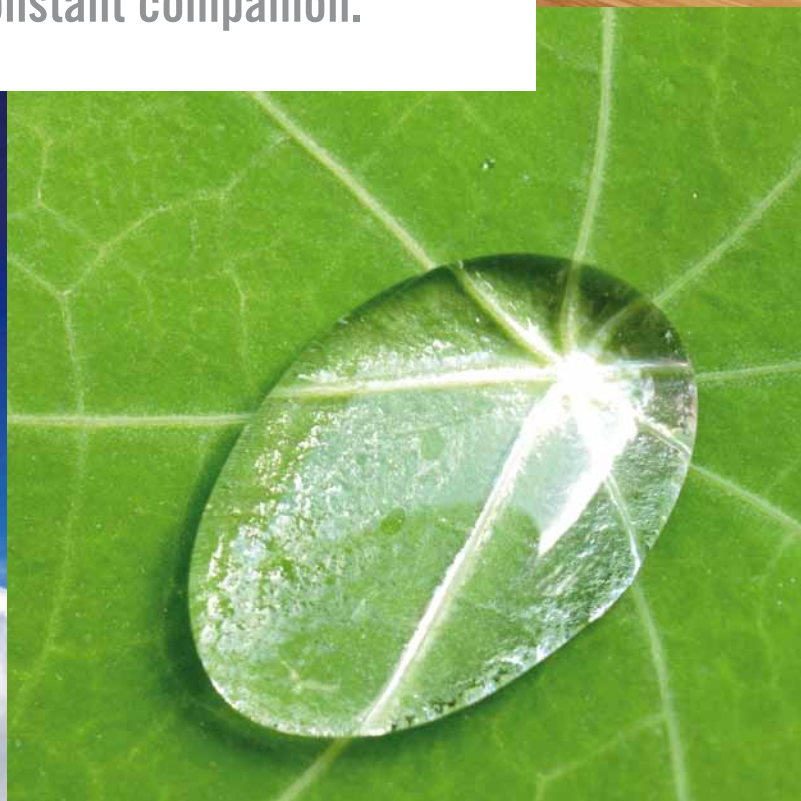
With the help of our experienced staff, you can test UV applications in our Applications Competence Centers (ACC) or measurement laboratories worldwide. We can give you practical insights into:

- How UV or infrared radiation can support and optimize your process
- How your material behaves
- Which lamps are most suitable for your process
- The best way to integrate the lamps into your production process

Get in touch! We will be delighted to arrange an appointment in one of our ACCs or at your facility.



An invisible but constant companion.



UV light isn't just used in many areas of industry and research – it's also a constant companion in our daily lives.

UV water treatment

More people worldwide currently suffer from unclean water than from AIDS, measles and malaria combined. The energy rich UV light from Heraeus lamps renders the pathogens in water inactive in a matter of seconds, making the water safe to drink. The safety of the drinking water supplied to New York City for example is already protected by several thousand UV lamps from Heraeus in an environmentally friendly process that involves no chemicals.

UV lamps can also be used as a quick, safe and cost-effective way to disinfect process water or ballast water on board ships.

UV air treatment

Unhygienic fat deposits are produced anywhere food is roasted, grilled or cooked on a large scale. UV lamps from Heraeus prevent such deposits from building up by breaking down fats and odors in the extracted air. The same technology is also used to disinfect the air in hospitals, e.g. against 'hospital germs' such as 'MRSA'.

UV surface treatment

Viruses don't stand a chance. UV disinfection ensures surfaces of packaging and packing strips are germ-free and that milk, yogurts and fruit juices last longer. Ultraviolet light destroys the DNA of microorganisms. Viruses are rendered inactive within seconds, and bacteria, yeasts and fungi are killed using an environmentally friendly method without any added chemicals.

UV curing

Versatile UV curing solutions are used in a wide range of industries such as medical equipment, floor coverings, composites and electronic components.

Whether furniture, magazines or automotive parts, environment where materials are dampened, coated or bonded, upstream UV curing simplifies and improves the production process, thus saving time and money.

UV radiation is used to cure inks, adhesives and varnishes to produce a high quality surface. Furthermore, Vacuum UV (VUV) radiation has the capability to clean, activate and modify surfaces. Heraeus offers UV solutions for an energy efficient and environmentally friendly production.



UV solutions from Heraeus.



Tomorrow's technology for nowadays daily life.

From UV medium-pressure, low-pressure and amalgam lamps to UV-LED modules and entire UV curing systems, our solutions are perfectly tailored to your processes and materials.

Each application requires its own specific UV treatment. Radiation spectrum, UV output, temperature, substrate, illumination length and lamp geometry are all adjusted to the relevant operating conditions. The rays are dispensed precisely and in the correct strength, and are directed exactly where they need to go. This provides you with a far more efficient and effective workflow while also saving on energy and operating costs.

The scale varies from a single lamp module to a complete turnkey system consisting of several lamp modules, light shielding, material handling and controls.

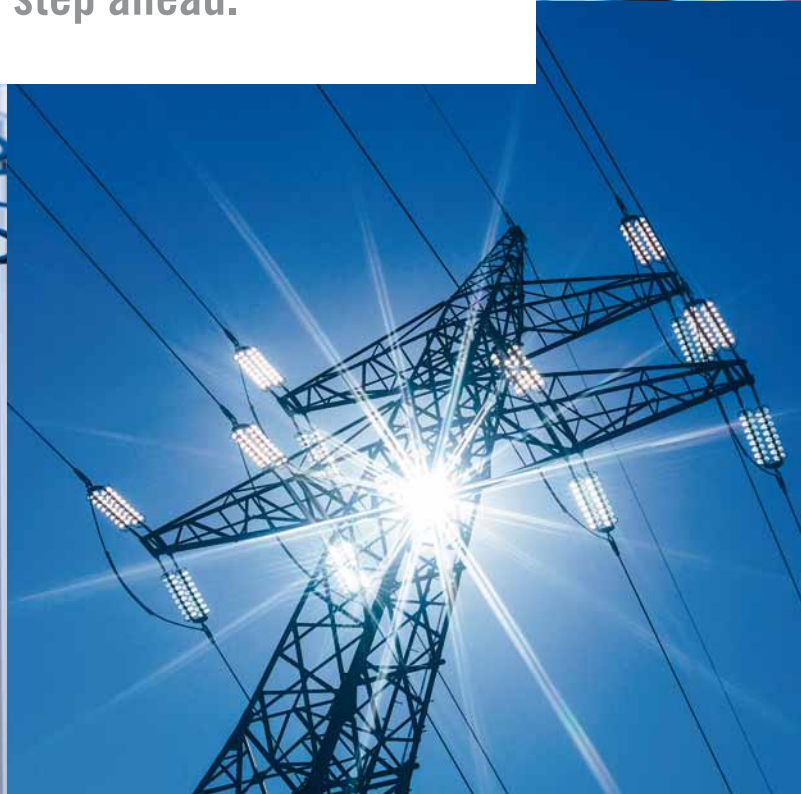
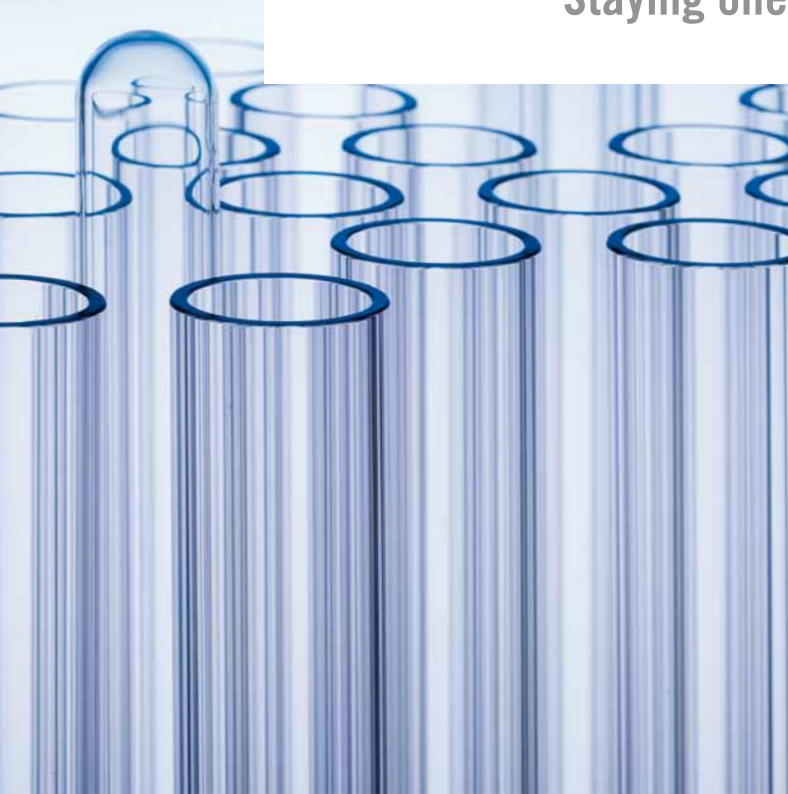
Customized design is what ensures a UV lamp system can be successfully integrated into existing process equipment. The result? Optimized performance and cost of ownership.

Our products

- Low-pressure lamps, amalgam lamps and systems
- UV-LED systems
- Medium-pressure lamps, Metal halide lamps and systems
- Amba® UV curing and replacement lamps
- Microwave-powered (electrodeless) systems
- Arc and flash lamp solutions
- Combined UV and IR heating solutions
- Conveyor belts and customized engineered solutions



Staying one step ahead.



As a partner, Heraeus not only offers technologically outstanding products and solutions, but also added value that really boosts your profit.

Service. Globally local.

Our service knows almost no bounds. We are on hand all over the globe – and we're always ready to help with everything from installation, training and troubleshooting to process optimization.

Energy efficiency. Less is sometimes more.

Heraeus solutions significantly reduce your energy consumption. That, in turn, boosts your profitability and optimizes the industrial processes so accurately that you save both energy and money.

Process safety. Quality is not a question of chance.

We understand your processes and offer you solutions that make your process faster, safer and more efficient.

Technology leadership. Fit for the future.

Our UV experts are constantly finding new answers to the challenges posed by the future of industry. Answers that point the way into the future – and put you well ahead of the competition.

Environmentally friendly. Responsibility for our planet.

Our UV solutions are chemical free. They help to reduce the use of solvents and emissions of volatile organic compounds (VOCs). There are no disinfection byproducts or pollutants.

Everything from a single source. The Heraeus principle.

Thanks to the international profile and broad-based strategy of the technology group Heraeus, we can offer you not only UV solutions, but also combinations with infrared technology, for example. Within our company, we use high-quality source materials – that means added safety and security for you.

Testing and measuring expertise. It is precision that counts.

Heraeus uses pioneering technologies to achieve ever greater precision. You can work side by side with our employees to test these solutions in advance in our Applications Competence Centers (ACC). Customized measurements of specialty light sources are carried out carefully in an independent and ISO 17025-accredited laboratory by our expert team of physicists, engineers and measurement engineers.

The industry is facing major challenges.

Megatrends such as globalization, international networking and ever more dynamic technological development demand strong, competent partners.

Heraeus is a company that is actively shaping the future with customized innovations, exceptionally high-quality products and service that is second to none.

The years since 1851 are ones that we are very proud of.

We have used them to transform a small pharmacy in Hanau into one of the leading international companies in our industry.

Heraeus has now grown into a global family-owned group with expertise, a focus on innovations, operational excellence and an entrepreneurial leadership. More than 12,000 people are employed in over 100 companies and over 5,300 patents are held by combining material expertise with technological know-how.

Heraeus Noblelight, global business unit at Heraeus, it is one of the market and technology leaders in the manufacture of specialty light sources and systems.

We are pleased to share our expertise with you. In a number of applications and development centers, we will work with you to put your materials through practical tests and optimize your processes.

Whether you want to optimize existing applications or are keen to gain a foothold on new markets, Heraeus can offer you an efficient solution that will ensure you stay one step ahead of the competition.

Get in touch! We look forward to hearing from you.







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We reserve the right to incorporate changes and improvements without notice.