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LIGHT HAS ALWAYS FASCINATED US.
Materials interacting with light is at the core of what we do. Visible by our leading position in liquid crystals for LCD and materials for OLED. Displays are a central focus at Merck and so is our IC materials business. Optoelectronics is positioned in-between and we benefit from both sides. Combined expertise to serve the industry. For the best of two worlds.

OPTOELECTRONICS ARE SHAPING THE FUTURE.
LED lighting and photovoltaics for a sustainable world, scintillators for advanced medical imaging or optical interfaces in mobile electronics – just a few fast growing technologies improving our lives. All are enabled by advanced optoelectronic materials. Inspiring possibilities to make the difference is our aspiration.
what we offer.

PHOSPHORS
Our highly efficient, reliable isiphor® phosphors as well as our novel developments for violet excitation allow for vivid colors, both for general lighting and backlighting.

MO PRECURSORS
Our high-purity metalorganic precursors and dopants, with high batch-to-batch uniformity, find application in a multitude of industries such as thin film solar cells, laser diodes and LED chip manufacturing.

PHOTORESISTS
Your benefit by using our cost-effective, high-performance photoresists is high throughput, better adhesion and increased thermal stability in substrate patterning and chip manufacturing.

BARRIER MATERIALS
Use our formulations for roll-2-roll coating of high-barrier films on flexible or rigid substrates. Processing by short-wavelength UV or steam cure results in thin glass-like layers. Our development stream targets single layers with increased performance coated on plastic substrates e.g. for PV or OLED encapsulation.

PACKAGING
We develop novel binder spray materials offering new possibilities for LED packaging, especially in high power applications.

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PRECURSORS FOR SEMICONDUCTOR NANOCRYSTALS
We provide you with electronic grade inorganic and organic materials for synthesis and purification of III/V or II/VI semiconductor nanocrystals. Use them to enhance your solar cell, detector or display by manipulating light based on quantum effects.

MATERIALS FOR PV
With a focus on high efficiency concepts, we offer active materials, as well as process chemicals, for all established PV technology streams. Our research teams work on material concepts for next generation solar cells, such as OPV (lisicon®) and Perovskites.

MATERIALS FOR CRYSTAL GROWTH
Our high-purity, anhydrous metal halides, beads and powders (Optipur®) are tailor-made for the production of crystal growth and thin films. These are key for radiation detection used in applications such as medical imaging, security or UV-optics.

OPTICAL COATING MATERIALS
We offer Patinal® evaporation materials for the deposition of optical thin film systems by PVD (Physical Vapor Deposition). We design our products to work on various substrates and increase the robustness of your valuable optical coating process. For ALD (Atomic Layer Deposition), we offer a range of metal sources for oxide film deposition.

APPLICATIONS FIELDS

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OUR PIONEERING SPIRIT.
OUR COLLABORATIVE MINDSET.
We seek innovation in everything we do. Not alone, but together: Together with you as international partners from science and industry along the entire value chain. We understand that technology development is increasingly more complex. This is why we believe that partnerships are essential for innovations, which shape the future. It is a long successful tradition at Merck to learn from other ways of doing things. Fueled by our well-established global presence and R&D network. We are your neighbor.

MAKE GREAT THINGS HAPPEN. THIS IS OUR ASPIRATION!
Merck is a leading science and technology company in healthcare, life science and performance materials. Around 50,000 employees work to further develop technologies that improve and enhance life – from biopharmaceutical therapies to treat cancer or multiple sclerosis, cutting-edge systems for scientific research and production, to liquid crystals for smartphones and LCD televisions. In 2016, Merck generated sales of € 15.0 billion in 66 countries.

About us
Founded in 1668, Merck is the world’s oldest pharmaceutical and chemical company. The founding family remains the majority owner of the publicly listed corporate group. Merck, Darmstadt, Germany holds the global rights to the Merck name and brand. The only exceptions are the United States and Canada, where the company operates as EMD Serono, MilliporeSigma and EMD Performance Materials.

WE HAVE GROWN. WE ARE A NEW UNIT.
Over the last years, we have continuously turned ideas into innovative products. An additional momentum was generated from the recent acquisitions of AT Electronic Materials and Sigma Aldrich (Hitech). As a result, today our extended product portfolio of high-tech specialty chemicals addresses the whole optoelectronic industry. We are driven by the belief that there is always a better way to serve our customers. This is why we have optimized these activities in one new business field: Optoelectronic Materials

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