



INK INVENTTM

— RheoLightTM Crystal Glass Pigments —

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RHEOLIGHT BY INK INVENT NAMED CES 2024 INNOVATION AWARD HONOREE



Ink Invent is honored to announce that their product portfolio 'RheoLight' has been named a CES® 2024 Innovation Awards Honoree in the category 'Smart Cities' as a recognition for the outstanding design and engineering features.

The Award winning RheoLight portfolio consist of Crystal Glass Effect Pigment dispersions and sets the new Safety Standard for exterior design in the mobility industry.

Specifically developed for the Automotive Industry, the latest addition to the portfolio contains world's first patented 1-10 micron sized, perfectly round, Crystal Glass pigments. Improving the visibility and detectability of vehicles for sensors used in Advanced Driver Assistance Systems (ADAS).

"Sensor-friendly colors hold the key to a safer traffic environment" Paul Mijnen – CEO Ink Invent- said.

"We are extremely proud to receive the recognition for RheoLight as a breakthrough innovation supportive of the transition to full autonomous driving. This award acts as another testament in strengthening our belief and mission of providing RheoLight to the world, making it safer, more colorful and beautiful for everyone".

CES AWARD PROGRAM



The CES Innovation Awards program by CTA® is an annual competition honoring outstanding design and engineering in 29 consumer technology product categories. An elite panel of industry expert judges, members of the media, designers, engineers and more, reviewed submissions based on innovation, engineering and functionality, aesthetic and design.

This year's CES Innovation Awards program received a record number of over 3000 submissions. The Innovation Awards announcement was made ahead of CES 2024, the world's most powerful technology event that will take place from January 9-12, 2024, in Las Vegas, USA.

Meet Ink Invent @CES 2024 :

- 7 January: CES Unveiled Las Vegas, Mandalay Bay Convention Center – Shoreline Exhibit Hall
5:00 – 08:30 PM.
- 9-12 January: Venetian Expo, Hall G – 62100 Eureka Park



Consumer
Technology
Association®

UNPRECEDENTED VISIBILITY AT NIGHT



The scooter on the right has RheoLight added to the original grey metallic color. By daylight, the color is like the original. RheoLight boosts LiDAR results up to 140 times and Computer Vision reliability increases with 21%!

City environment, RheoLight visibility activated by car headlights

VISIBILITY SAVES LIVES

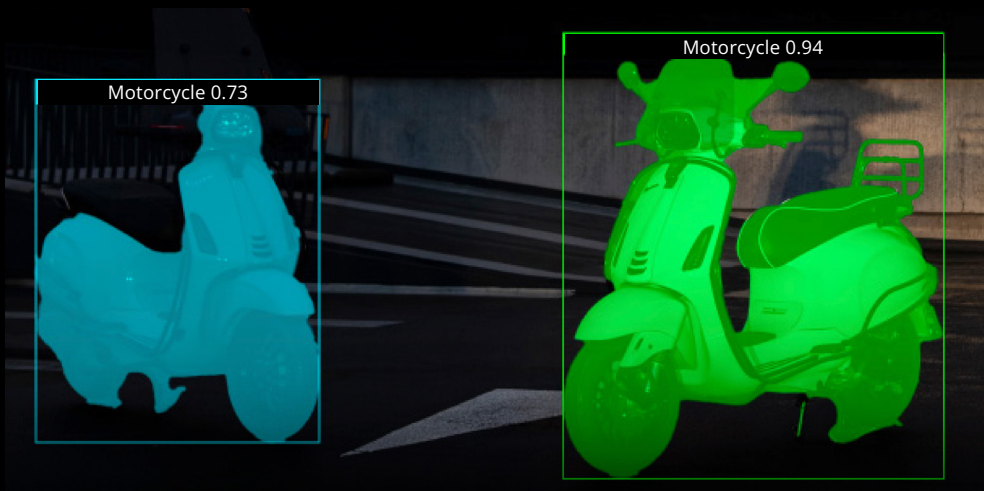
Any color becomes less visible under increasing angles of observation, even during the day. In a traffic environment, where safety is driven by visibility and detectability, not being visible is detrimental to the safety of all participants. RheoLight, as Tunable Detection & Determination Technology, provides a functional safety utilization feature with colors by significantly increasing object's visibility, especially under increasing angles of observation.



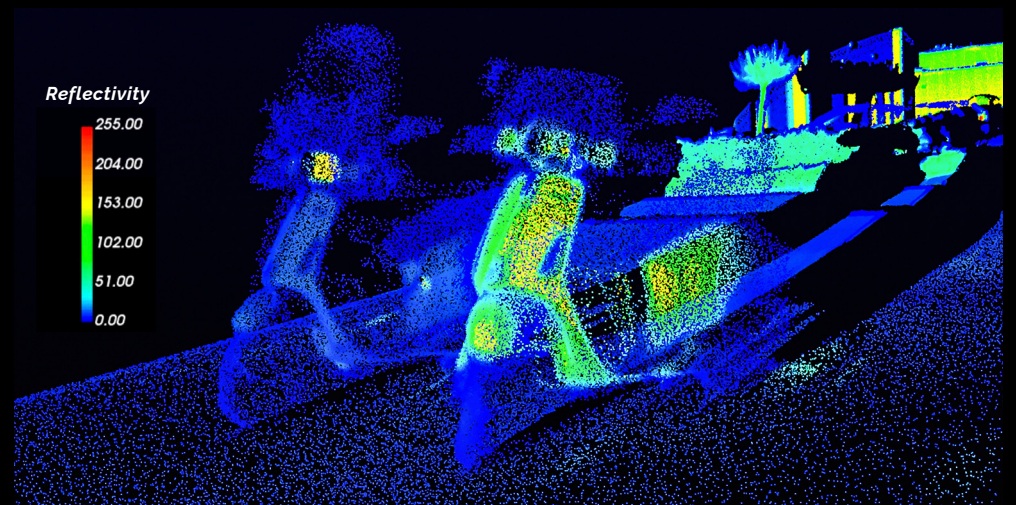
DAYTIME: SAME COLOR



NIGHTTIME CAR HEADLIGHTS: HIGHLY VISIBLE



COMPUTER VISION: INCREASED RELIABILITY WITH 21%



LiDAR VIEW: 140 TIMES MORE VISIBLE

NOW YOU SEE ME!

Being visible in the traffic environment is especially valuable for Vulnerable Road Users (VRU's) such as bicycles, scooters, motorbikes, etc. Traffic safety and emergency response vehicles (e.g. ambulances, police, firefighters, tow trucks etc.) can also benefit from being even more visible.

RheoLight enables the functional utilization of colors by boosting the visibility of vehicles in both day- and night-time for both the human eye and ADAS. Reducing the risk of traffic incidents, and supporting the transition to full driving automation.





RheoLight opens up a completely new color dimension and provides a new toolset for designers to integrate safety enhancement features to the exterior of vehicles without compromising the aesthetic appeal. Overall, enabling increased safety in the traffic environment by providing enhanced object visibility and detection for all traffic participants, aiding in the safe transition to full autonomous driving.

The stripings applied on the car shows a standard dark grey metallic automotive color. The mini striping in the middle is tuned by adding 3% RheoLight to the original color, while the outer sides of the bodywork contain 20% of RheoLight. Providing self-driving sensors visibility improvements with 100 up to 200%!

SAFETY
MADE
BEAUTIFUL

NEVER SEEN BEFORE, MAKING THE INVISIBLE VISIBLE!



Dark colored vehicles can pose a serious risk in traffic environments. Some dark colors are hardly detectable by current ADAS sensors.

Now, it is possible to make previously invisible objects visible. Even by adding low concentrations of RheoLight previously invisible (dark) colors can be made visible for ADAS. Extensive LiDAR systems field tests have shown that the addition of percentages as little as 1-3% of RheoLight already improve LiDAR detectability substantially and can even generate LiDAR responses where without use of Rheolight™ were none.

Improved LiDAR, ADAS and AI algorithms ultimately result in a safer traffic environment and contribute to the progression of reaching next SEA levels of autonomous driving.

HIGH VISIBILITY CRUISER

Harley Davidson Motorcycle dark Smokey Grey for the bodywork and helmet. The color tuned adding RheoLight for optical elegance by day, maximum visual and sensor visibility at night.





RHEOLIGHT PORTFOLIO

The RheoLight Product portfolio is designed for seamless incorporation into existing color systems. The ready-for-use water- and solvent-based dispersions of perfectly round microspheres are suitable for inclusion in any paint system to enhance the visibility and aesthetic appeal of colors.

ABOUT

INK INVENT

Ink Invent BV, a privately-owned company in the Netherlands, proudly presenting RheoLight—a strategic innovation in effect pigments specifically designed for the mobility and automotive industry. Founded in 2018 by passionate engineers and entrepreneurs. With an extensive global patent portfolio we are redefining color functionality enabling enhanced visibility and detection of all traffic participants, ultimately contributing to a safer traffic environment. Meet us @CES 2024 / Venetian Expo, Hall G – 62100 – Eureka Park, and follow #RheoLight on LinkedIn.

CTA® Consumer Technology Association

As North America's largest technology trade association, CTA® is the tech sector. Our members are the world's leading innovators – from startups to global brands – helping support more than 18 million American jobs. CTA owns and produces CES® – the most powerful tech event in the world. www.CTA.tech. Follow @CTAtech

CES

CES® is the most powerful tech event in the world – the proving ground for breakthrough technologies and global innovators. This is where the world's biggest brands do business and meet new partners, and the sharpest innovators hit the stage. Owned and produced by the Consumer Technology Association (CTA)®, CES features every aspect of the tech sector. CES 2024 will take place Jan. 9-12, 2024, in Las Vegas. Learn more at www.CES.tech and follow CES on social.

All CES 2024 Innovation Awards honorees including product descriptions and photos can be found at www.CES.tech/innovation.



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