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News release

PRSA 2024: trinamiX presents their portfolio of versatile plastic and textile identification solutions to the Southeast-Asian market

October 31, 2024 – Ludwigshafen, Germany / Singapore – trinamiX GmbH, a leading provider of mobile spectroscopy solutions and subsidiary of BASF, will join the inaugural PRSA, the Plastics Recycling Show Asia 2024 in Singapore, to showcase their versatile plastics and textile identification technology to the Southeast-Asian market. From designing plastics packaging that is sortable, to quality control for in- and outgoing plastics, to cleaner sorting for improved recycling; mobile identification of plastic and textile types adds benefits across the supply chain. Visitors to PRSA can experience the trinamiX Mobile NIR Spectroscopy Solution at trinamiX booth #L44 from November 13-14, 2024.

Adrian Vogel, Segment Lead Circular Economy at trinamiX GmbH, will give a talk about "How mobile NIR technology and smart data management can help in improving the waste management process" on November 13, 2024, at 04:35 pm at the PRS Asia conference. He is sharing insights about the growing demand for recycled plastics and how accessible identification technology and smart data management can help fulfill this demand. "I am looking forward to demonstrating how these advancements can not only improve recycling in areas that are lacking waste management infrastructure but also create economic opportunities for waste pickers and recyclers alike", says Adrian Vogel.

trinamiX Mobile NIR (Near-Infrared) Spectroscopy Solutions: Accessible plastic identification

trinamiX enables flexible identification of plastics and textiles at the push of a button. The solution consists of a robust, mobile NIR spectrometer, an easy-to-use app backed by advanced cloud data analysis and a customer portal to manage results, download reports, and export data. The plastic identification solution can reliably identify over 30 types of plastics including consumer plastics like HDPE, LDPE, PP, PET, PS, PVC as well as engineering plastics like PA, ABS, PC, PLA and quantify blends of PE and PP.
In textile identification, a wide range of fiber materials like acrylic, cotton, elastane, polyamide and its subclasses PA 6 and PA 6.6, polyester, polypropylene, silk, viscose and wool can be detected. In addition, textiles that are made from more than one material can also be analyzed. To fulfill the specific requirement of recyclers, trinamiX offers a versatile solution that combines the advantages of multiple setups: Whether it is a handheld device that fits into a user's pocket for quick checks, or a semi-automated setup which can be integrated into a sorting table with a sensor for automatically triggered scans.

Hard-to-differentiate plastics and textiles: multi-material films, PE/PP, compostable plastics and PA 6/PA 6.6

Hard-to-differentiate plastics and textiles, such as multi-material films and blends of polyethylene (PE) and polypropylene (PP), pose significant challenges in recycling due to their mixed compositions. Compostable plastics, while environmentally friendly, can complicate sorting processes, especially when they resemble conventional plastics. Polyamides like PA 6 and

PA 6.6 are often difficult to separate and recycle, further complicating waste management efforts. The sophisticated models of trinamiX Mobile NIR Spectroscopy Solution have been trained to identify all those materials, helping to close the loop on these materials as well.

Mobile quality control along the manufacturing and recycling process

Quality management in plastic production and recycling facilities is essential for producing high-quality products. A key element for efficient recycling of plastics is the sorting of mixed plastic waste into pure waste streams, as impurities can compromise the quality and integrity of the recycled products. From checking incoming materials to approving bales of sorted plastics or textiles, trinamiX makes quality control simple and easy. It also supports non-conformance management and the efficient management of complaints, reducing the risk of costly errors and delays.
trinamiX's solutions not only enable companies to perform spot checks, but also to comprehensively document incoming and outgoing material flows, visualize and analyze them, thus creating comprehensive transparency for manufacturers and recyclers of plastics.

Design for recyclability

Packaging design has a significant impact on a product's sortability, and therefore recyclability. If a container cannot be identified properly by NIR, it has high probability of ending up in a landfill. Packaging features like color, labels, additives and more can impact a packages ability to be identified. With trinamiX, brands can assess the impact of these features to provide insight into product recyclability early in the design process. By designing packaging with recyclability in mind, manufacturers can help to reduce the amount of plastic waste that ends up in landfills. This is a crucial step towards creating a more sustainable and circular economy.

Upcoming hardware expansion: trinamiX PAL Two

trinamiX will be presenting a new hardware for their Mobile NIR Spectroscopy Solutions at PRSA: the handheld spectrometer trinamiX PAL Two will be showcased with live demonstrations. The new hardware features an ergonomic design and can be operated single-handed. It has a built-in display to show measurement results directly on the device.

More information: www.trinamiXsensing.com

About PRSA 2024

trinamiX at PRSA

Date: November 13-14, 2024
Location: Singapore,
Marina Bay Sands
Booth location: L44

Talk: "How mobile NIR technology and smart data management can help in improving the waste management process"

By: Adrian Vogel, trinamiX
Date: Wednesday, Nov 13, 2024
Time: 04:35 – 04:55 pm

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Media contact

Ines Kuehn
M +49 173 3478340
E ines.kuehn@trinamix.de

About trinamiX

trinamiX GmbH develops cutting-edge biometric and mobile NIR spectroscopy solutions, which are used in both consumer electronics and industrial designs. The company's products enable humans and machines to better capture data with the goal of understanding the world around us. This results in improved decision making as well as stronger biometric security. trinamiX, based in Ludwigshafen (Germany), was founded in 2015 as a wholly owned subsidiary of BASF SE. The company employs over 230 people worldwide and holds more than 750 patents and patent applications.

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