



NANOLOCKIN

Problem – Challenge

Smaller than living cells, nanoparticles are found in many products such as cosmetics, food, or clothing. An apparel company can for example integrate silver nanoparticles in sports clothing to ward off bacteria. This means though that issues such as nanoparticle concentration in fibers, and whether these particles can leach off fibers and affect the wearer's skin, need to be resolved before heading to market

Solution

NanoLockin's measurement system can respond to this type of query. The nanoparticles are stimulated to produce heat, allowing them to be detected, counted, and observed, by the system's built-in infrared camera. This technology has a number of advantages, including no damage to the sample, ease of use, and costing less than the market competition.

Located in Fribourg, the NanoLockin Application Lab allows interested customers to spend one or more days measuring samples and exploring the potential of the NanoLockin system. Possible uses include quality control for nanoparticles and products containing nanoparticles; localization of nanoparticles; risk assessment (nanoparticle detection in cells and tissues); heating properties of magnetic nanoparticles; and heating properties of gold nanoparticles.

NanoLockin is the first company launched at the Adolphe Merkle Institute, an interdisciplinary nanoscience research center at the University of Fribourg. The company was the winner of Fribourg's 2018 innovation prize in the startup category.

