

Photocatalytic Activity of Nanoparticles for NADH Oxidation Now Has an ISO Standard



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Standard ISO 20814:2019 is a newly established standard by the International Organization for Standardization (ISO), which engages the field of nanotechnology where the photocatalytic activity of nanoparticles for NADH oxidation needs to be measured with the ultimate goal of assessing the photo-toxicity of the nanoparticles.

The [International Organization for Standardization \(ISO\)](#) has published standard ISO 20814:2019, "[Nanotechnologies — Testing the photocatalytic activity of nanoparticles for NADH oxidation](#)." The standard specifies a method for the measurement of the photocatalytic activity (PCA) of nanoparticles (NP), suspended in an aqueous environment in physiologically relevant conditions, by measuring the ultraviolet (UV)-induced nicotine adenine dinucleotide hydrate (NADH) oxidation.

According to ISO, the measurement is intended to assess the potential for the photo-toxicity of nanomaterials. The method is also applicable to NP aggregates and agglomerates. ISO states that existing standard test methods for particle and surface PCA measurement (see [ISO 10676](#) and [ISO 10678](#)) are not directly applicable to determine nanomaterial PCA leading to photo-toxicity, as they require a large test volume and/or long measurement duration, while using organic dyes as indicators that are not biocompatible.

Read the [original article](#) on Nano and Other Emerging Chemical Technologies Blog.