

Making Nano-Products Safe for the Market



Short Biography. Harald F. Krug was Manager for the International Research Cooperations in the Swiss Laboratories for Materials Science & Technology. Until May 2014, he was a member of the board of directors of Empa and head of the research focus area „*Health & Performance*“. He founded the Company NanoCASE GmbH in 2014 and his actual work with his company is focused on applications and implications of new materials, especially nanomaterials.

Abstract. Nanosafety considerations become a substantial part of many funding programs, international conferences, and regulatory activities worldwide. Since the term “Nanotoxicology” appeared the first time within a title of a publication in 2004 confusion about its implementation and the objectives starts. One year later, the relationship to the former research on ultrafine particles has been highlighted and the “new discipline” started its success story. Whereas the number of publications regarding nanotoxicological issues from that time increases dramatically each year (from around 150 in 2004 to more than 4500 in 2017) clarity about possible risks dropped. Not only we could demonstrate the interference of NP with the assay systems leading to false-positive or false-negative results, solvent problems have not been addressed carefully and the appropriate controls are frequently missing as well as the needed characterization of the materials tested. Thus, industry and especially SMEs are confused about the use of nanomaterials to enhance their products.

On the basis of a comprehensive literature study and specific tools provided in the internet some solutions will be provided how to make nano-products safe.



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