surface of fibers via, e.g., the deposition of nanoparticles. Authors also list comprehensively the properties of nanotextiles and the nanomaterials exploited to obtain them, and describe some relevant applications. For instance the use in dirt- and water-repellent textiles or the use as filters for pathogens. Their analysis did count at that time more than 80 "nano-tex" products yet available on the market. Finally, also a reflection on the possible impacts on health and the environment are made.

Other reviews focus instead on more specific topics. It is the case for instance of the work of Dastjerdi and Montazer (2010) who focus on the anti-microbial properties of the textiles modified with inorganic nano-structured materials. Such materials are mainly oxides (such as Titanium dioxide in nanoparticles or nanotubes) or metals (such as Silver nanoparticles). Other materials (for instance carbon nanotubes, nanocomposites, other metals such as Gold, Zinc or Copper) are also used to the purpose of creating substrates able to kill bacteria, rather than grow them.

Som et al.(2011) instead study the environmental and health effects of nanomaterials exploited in the production of textiles, as well as used in external coatings of buildings. In particular what authors explore are the effect of a possible release of engineered nanomaterials from the substrates that host them, focusing on existing applications. In particular their work is based on the effects of nanoparticles of different materials, as the above cited Titanium dioxide, Carbon nanotubes and Silver, as well as Zinc oxide, Alumina, Silica. Authors point out the existing knowledge gap on the possible dangerous effects of such nanomaterials, as well as on the rate of their release from substrates.

There exists also a wide bibliography discussing – from the point of view of hard sciences – specific NST application on fibers and textiles. Some examples are cited here.

The review paper of Tung and Daoud (2011) summarizes findings and concepts relative to the realm of NST-enhanced self-cleaning fibers. The paper carefully describes the different methods and physical-chemical paths able to impart self-cleaning properties to the fibers. The different nanomaterials that are applied to the scope are also described. Also side-by effects, such as UV protection and anti-odor effect, are described in the work.

A similar topic is that treated by ul-Islam et al. (2013). In their review on green-chemistry produced biopolymers a section is devoted to the future prospects of nanotechnology which is "playing an extraordinary role in the functional finishing of textiles" (p. 5256). Authors' main concern is the introduction of green chemistry principles in NST. In particular one of the reviewed functionalization of fibers is the application of nanoparticles made with biopolymers. Such nanoparticles display properties such as higher stability and improved antimicrobial action.

But a wider perspective on the antimicrobial agents for textiles is that offered by Simoncic and Tomsic (2010). Among the several biocide compounds reviewed in the article are nanoparticles of noble metals and metal oxides. Besides this also organic-inorganic nanocomposite