

ACTIVITIES IN IRAN FOR STANDARDIZATION OF NANOTECHNOLOGY

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The importance of nanotechnology standardization is to reach the main topic in developing standards: uniformity in manufacturing and facilitating the commercialization of nano- products.

According to this goal, activities on standardization in nanotechnology have been started in Iran, where development of nanotechnology is assigned to National Nanotechnology Committee of Iran. This committee is working under direct supervision of presidency office. As written in the committee's official website [<http://www.nano.ir>], one of the long term goals of this movement, according to the "fourth development program of Iran" is to reach appropriate share of world trade based on nanotechnology. For this purpose structuring a standard developing and quality management system is needed for facilitating industrial and technological cooperation and decreasing costs raised from quality unawareness. So our workgroup has selected nanotechnology standardization as one of its research topics.

We have studied current state of different active countries in this field and find out that one can categorize these activities into two major groups, *General* and *Specific*. The general activities refer to those looking from the regulatory and nomenclature point of view. In the other side specific activities has done according to contracts locally signed between manufacturers, organizations and business start-ups.

As examples of the activities started in Iran we can mention:

- Establishing **National Laboratory Network for Nanotechnology** by National Nanotechnology Committee of Iran.
- Collaboration of Iranian Standard and Industrial Research Organization with, International Standard Organization (ISO) for starting the new Nanotechnology TC (technical committee)
- Academic research on standardization of measurement procedures used for nano-scale materials.

We have gathered or proposed in our research some opportunities specifically for Iran, which may also be helpful for other developing countries to enhance their market position in the upcoming era of nanotechnology. These proposals can be listed as below.

- 1- Establishing a national committee for managing and regulation of nanotechnology standards
- 2- Starting nanotechnology technical committee in Iranian Standard and Industrial Research Organization
- 3- Actively collaborating with other countries and international standard institutes, insisting on the country's core competencies
- 4- Introducing Iran's specific needs to international standard institutes
- 5- Equipping national laboratories
- 6- Collaboration with international laboratory networks
- 7- Developing specific standards based on casual contracts
- 8- Activation of researchers to focus on measurement procedures and methods
- 9- Participation in regional seminars and workshops and initiation of such activities

With paying attention to these activities, we can find the opportunity of holding a highly referenced database and information center for nanotechnology related commerce.