TRENDS AND DIRECTION IN MATERIALS DEVELOPMENT

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Abstract

Materials research, development and innovation are of strategic importance for the potential solutions of complex societal challenges such security, health, and energy problems including the nexus between these areas. There is no simple solution to these challenges, so countries around the world are investing in R&D, education, and infrastructure initiatives. Material development and advanced material technology play a leading role in overcoming these challenges, but in order to do so, there are permanent needs to be a renewed emphasis on scientific discovery and leadership, global R&D collaboration, and the ability to adapt to an increasingly dynamic marketplace. Trends and directions in materials development and innovations are discussed from the point of view of government funded fundamental research, capital needed to develop ideas to innovations and product development. Special attention is paid to the key aspects of collaborative international materials research and development, creative industry and innovations under the new EU Framework Programme HORIZON 2020.

Keywords: materials development, innovation, creative industry, HORIZON 2020

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