

## THE ENERGY CHALLENGE AND THE ROLE OF ADVANCED MATERIALS

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### **Abstract**

The increase in world energy consumption during the next decades is expected to be substantial due to the development of large and populous countries. At the same time, participation of renewable and environmentally friendly sources in the energy matrix is mandatory to mitigate the greenhouse effect and reduce its impact on climatic changes. As a result, considerably funding has been invested in alternatives sources. Among the current options for cleaner energy production, many are dependent on advances in materials related issues, representing an opportunity for researchers and industries in this field. The presentation will highlight examples of potential technologies that have been hindered by materials obstacles.

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