



Canadian Association of Physicists

SPECIAL TALK

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“What type of Energy for the future of humanity?”

Abstract

As the age of cheap oil and fossil fuels is coming to an end, humanity will face an energy crisis. Many alternative energy sources have already been identified. However, there is no optimal solution to replace fossil fuels on a short time scale with new sources that are economically viable and environmentally sustainable in the long term. History reports disastrous consequences for human societies that exploited their resources in a non sustainable way¹, and arguably this is exactly what is happening today on a global scale. Evidence for climate change is overwhelming. This public lecture aims at describing a general picture of the looming energy crisis, particularly to promote awareness². Some possible solutions are discussed, involving the use of advanced materials and nanotechnology for energy saving, energy storage and energy conversion. ¹ Jared Diamond, ‘Collapse’ Viking Penguin (2005). ² N. Armaroli, V. Balzani. “The Future of Energy Supply: Challenges and Opportunities”, *Angew. Chem. Int. Ed.* 46, 52 (2007).

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4:00 p.m.

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Room 167