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**Amorphous and Disordered Materials The Basis for New Industries**

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Dramatic changes are occurring in the fields of energy and information based on new synthetic materials. In energy, the generation of electricity by amorphous silicon alloy thin film photovoltaics: the storage of electricity in nickel metal hydride batteries which are the batteries of choice for electric and hybrid vehicles. In the information field, phase change memories based on a reversible amorphous to crystalline transformation are widely used as optical memories and are the choice for the new rewriteable CDs and DVDs. The scientific and technological bases for these three fields that have become the enabling technologies are amorphous and disordered materials. We will present the economic and environmental problems we face and show how these technologies provide realistic solutions to them today. In collaboration with Stanford R. Ovshinsky, President and Chief Scientist and Technologist, Energy Conversion Devices, Inc.