





Special Issue Reprint

# Smart Materials and Devices for Energy Saving and Harvesting

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Nowadays, energy harvesting and saving by means of innovative materials represents a challenge for researchers. In this context, smart materials may play a pivotal role, providing exciting performances and properties, as well as the chance to enhance design opportunities and energy saving through fabrication and operation. Smart materials are defined as highly engineered materials that respond intelligently to their environment with a specialized performance to meet specific users' needs in a reversible way. Since the beginning of these research activities, worldwide, several classes of materials and devices have been proposed and investigated that show reversibly adaptive properties, namely shape memory materials, piezoelectric materials, chromogenics, new materials for more efficient solar energy conversion, electro-active polymers for energy harvesting, etc.





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