

## Topical Collection

# Electric Vehicles: New Challenges and Opportunities for Sustainability

### Message from the Collection Editors

As a consequence of climate change concerns, the automotive industry is facing major investments targeting to reduce the dependence from fossil fuels. Therefore, the transportation sector is changing to the electric mobility paradigm, entailing a set of important questions about sustainability, namely about the required electricity for driving an electric vehicle, the environmental impacts due to require energy to produce the EV (including the batteries), and consequences related with recycling materials and the EV end-of-life. The topics of interest are related with (but not limited to):

- Renewable energy sources and energy storage systems as support of electric mobility
- Technologies for smart grids, smart homes, and smart cities as support of electric mobility
- Economic and environmental issues of electric mobility
- Environmental impact and life-cycle assessment about the electric mobility
- Technologies of battery electric vehicles, hybrid electric vehicles, range-extended electric vehicles
- New technologies of on-board energy storage systems for electric mobility
- Options and issues for the electric mobility concerning end-of-life

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