



Sustainable Lithium Ion Batteries: From Production to Recycling

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Message from the Guest Editor

Dear Colleagues,

Electric vehicles (EV) are promoted as a sustainable transportation choice because, on a life-cycle basis, they emit fewer greenhouse gases than conventional vehicles. In the evaluation of EV contributions to sustainable transportation, however, it is important to consider the production of the battery and its contribution to environmental impacts beyond life-cycle greenhouse gas emissions and urban air pollutant emissions. These impacts can be mitigated through use of different materials in batteries that incur less environmental impacts in the supply chain of batteries. Furthermore, battery recycling poses an opportunity to reduce demand for newly-mined metals. Contributions to this issue will investigate environmental impacts of today's lithium-ion batteries, how emerging battery chemistries might reduce battery environmental impact, and how opportunities for metal recovery through battery recycling can reduce demand for newly-mined metals.

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Guest Editor





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