

# Realization of a low carbon society through game changing technologies

**All solid state batteries with extremely high energy density and safety**

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## Summary :

Lithium ion battery is approaching to the physicochemical limit of the energy density, requiring new concepts for the electrochemical energy storage. All-solid-state fluoride-ion batteries, where a monovalent fluoride-ion is an anion charge carrier, offer an attractive option for the high energy density. The feasibility of the all-solid-state fluoride-ion batteries as extremely high-energy batteries will demonstrate by development of novel electrode and/or electrolyte materials and clarification of rate determining steps. Application of the batteries to electric vehicles can dramatically reduce carbon pollution.

