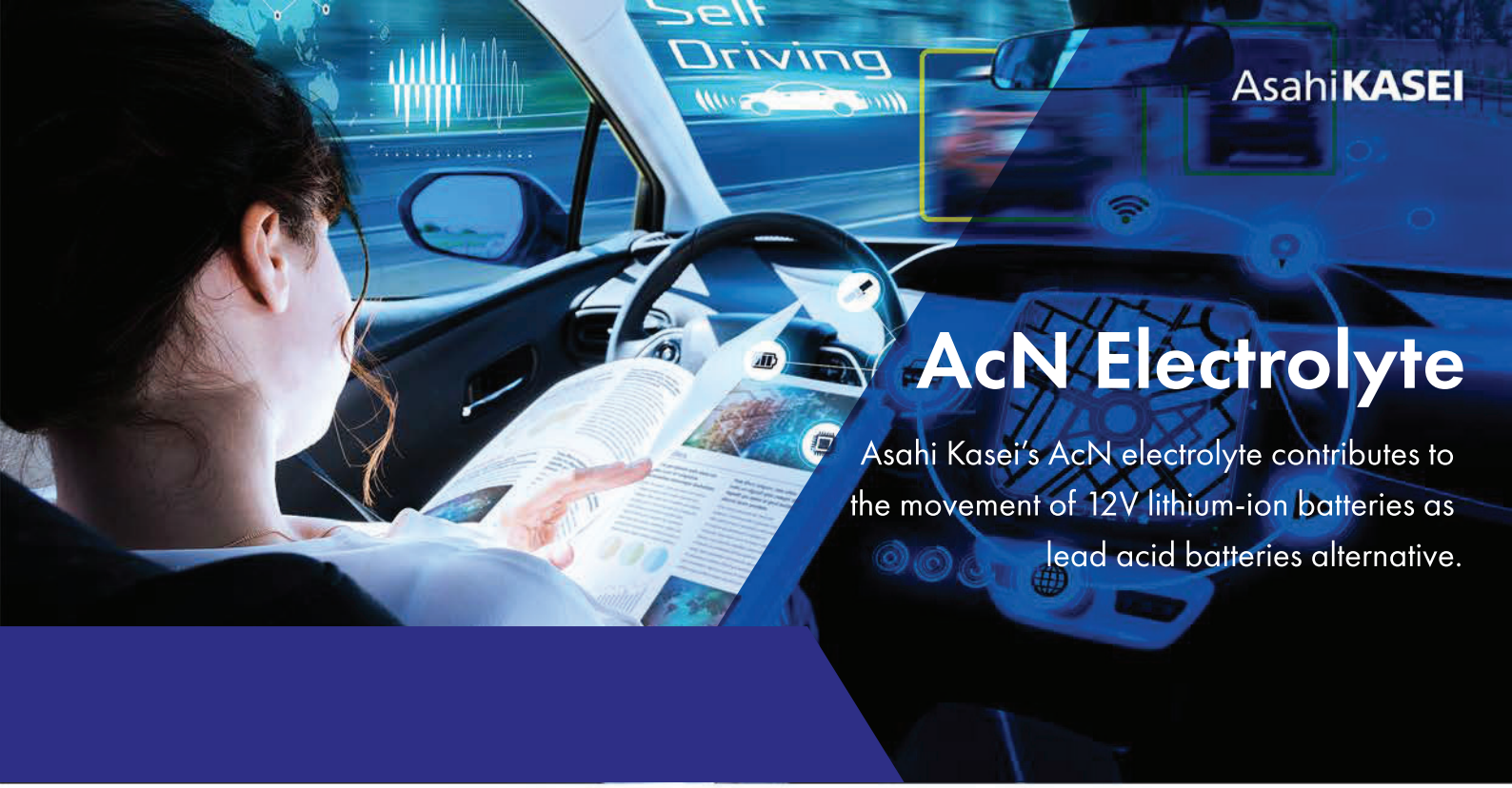


AcN Electrolyte

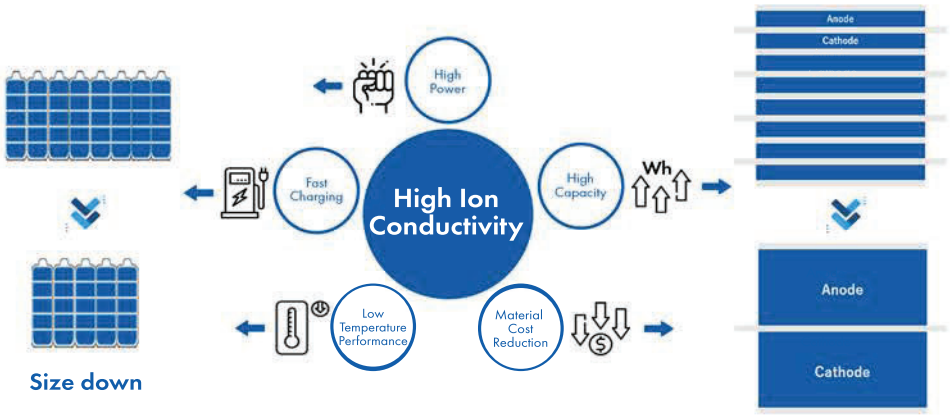
Asahi Kasei's AcN electrolyte contributes to the movement of 12V lithium-ion batteries as lead acid batteries alternative.

Electroclyte Technology

Electrode protection additives for acetonitrile (AcN)-containing electrolytes play an important role for the usability of such electrolytes since they are decomposed reductively and electrochemically on the negative electrode of lithium-ion batteries. The AcN-containing electrolytes enhance low temperature performance due to higher lithium-ion mobility and a low electrode interface barrier. This electrolytes increase power capabilities which can downsize battery cells and increase the capacity by enabling the usage of thicker electrodes, resulting in reducing the total cost of battery production.

Advantages of AcN Electrolyte for LIBs

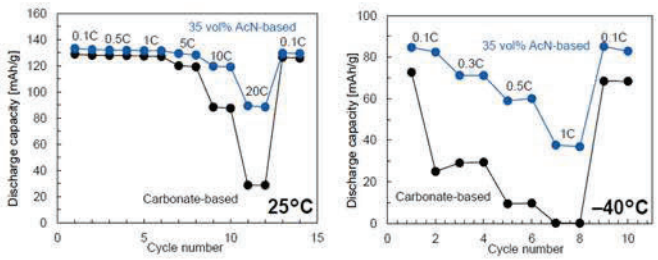
High ion conductivity of AcN-containing electrolytes enables to downsize LIBs and also to thicken anodes and cathodes.



Proof of Concept of AcN Electrolyte

High Power

Low Temperature



Electrode: LFP / Graphite
Cathode area capacity: 1.5 mAh/cm2
Separator: PE

N. Matsuoka et al., ChemElectroChem, 10.1002/celc.202100927 (2021)

Lead Acid Battery Alternative

AcN-containing electrolytes contributes to the movement of 12V lithium-ion batteries as lead acid batteries alternative

Lead Acid Battery

Lithium Ion Battery

Creating for Tomorrow

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