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Imaging of Muonic X-Rays from Lithium

Muonic x-ray has been used for an elemental analysis in various research fields. We have applied this technique to detecting metallic Li, which increases the risk to safety in a Li-ion battery. In our study, we found that metallic Li on the graphite anode can be detected with high sensitivity using muonic x-rays while less muon is captured by Li atoms in the anode.
Since metallic Li is distributed on the surface of the anode, an image of metallic Li on the anode is essential information for evaluating the status of a Li-ion battery. That will encourage recovery and reuse of used Li-ion battery equipped on vehicles. We have started applying pixel or strip detector technologies based on Silicon and CdTe semiconductors to nondestructive observation of muonic x-rays from Li.

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Did you request an Invitation Letter for a Visitors Visa Application

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