

Development of diagnostic imaging system for electric current density distribution inside storage battery for the first time in the world

-Dramatically improved safety through inspection of all storage batteries-

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New Energy and Industrial Technology Development Organization

Integral Geometry Science Co., Ltd.

Kobe University

In the NEDO project, Integral Geometry Science Co., Ltd. and Center for Mathematical and Data Sciences of Kobe University have succeeded for the first time in the world in developing a system for nondestructively diagnosing electric current density distribution in real time by measuring the spatial distribution of the magnetic field through analysis of the inverse problem of the electric current inside the storage area and the magnetic field leaking to the outside of the storage battery.

This technology can detect non-uniform electric current density even in non-defective storage batteries. In the future, while the production of storage batteries is expected to increase with the spread of electric vehicles, it is possible to dramatically improve the safety of storage batteries if inspection in the manufacturing process of all storage batteries is established.

Integral Geometry Science Co., Ltd. will start selling in-line 100% inspection systems capable of inspection in manufacturing processes within the next two years.

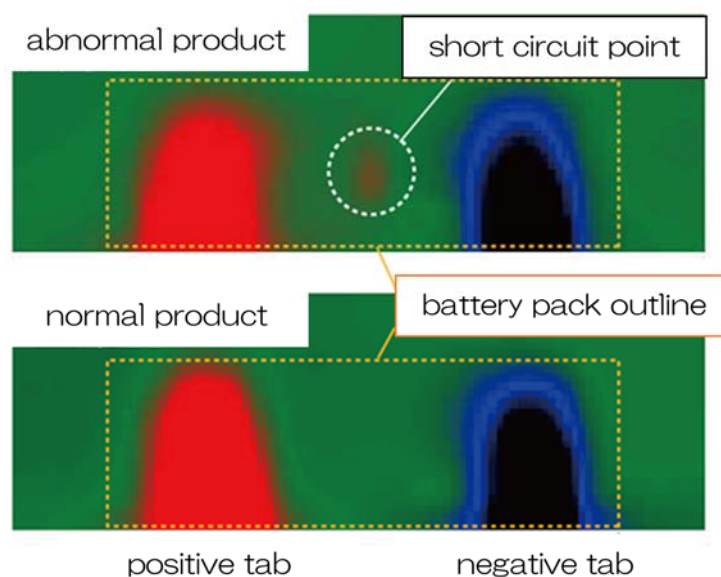


figure1 Diagnostic imaging of electric current density distribution inside storage