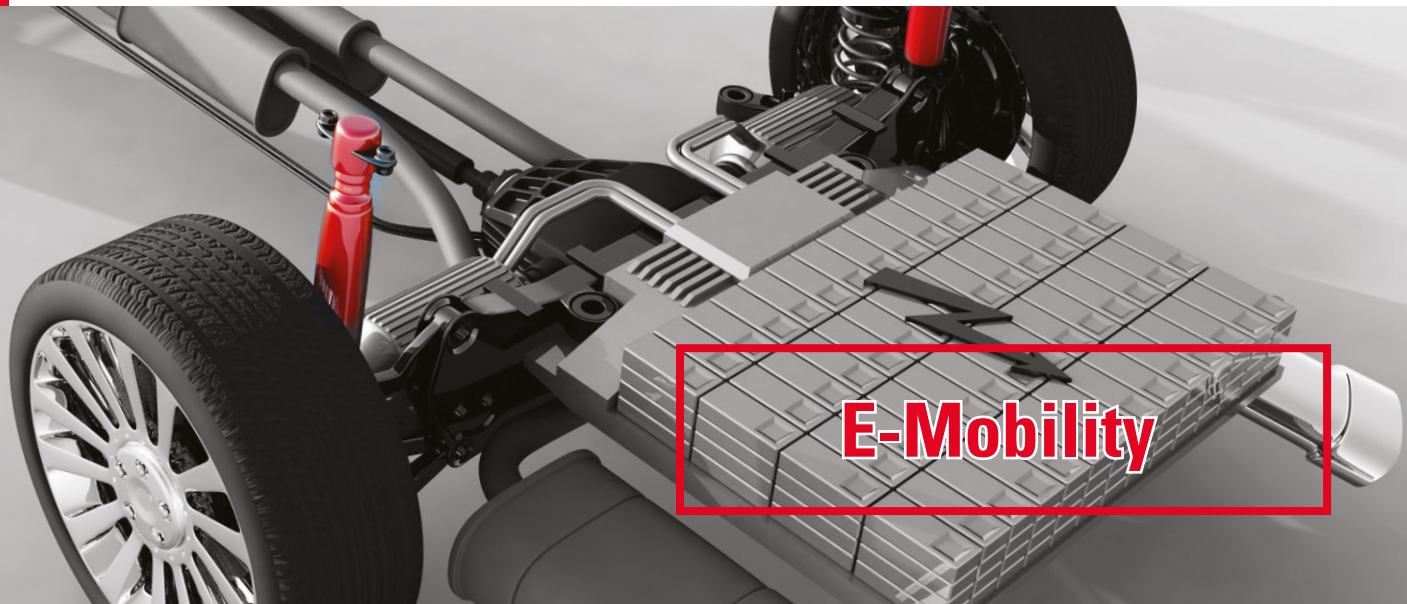


From Eye to Insight



E-Mobility Quality Control: Root Cause Identification for Breakdown of Electric Drive Systems

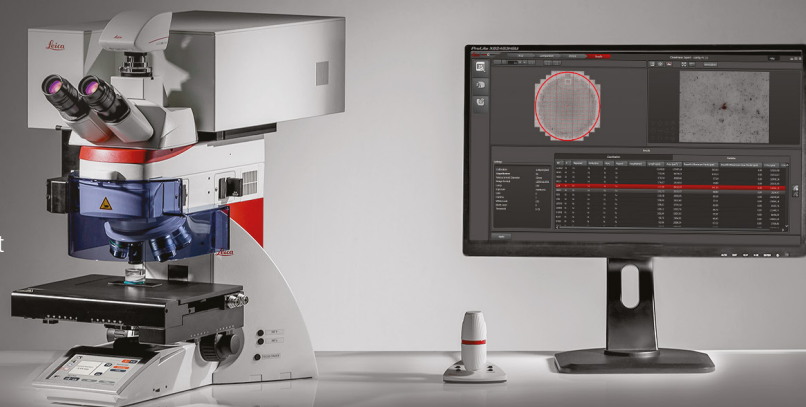
PREVENT THE BREAKDOWN OF INNOVATIVE ELECTRONIC SYSTEMS CAUSED BY CONDUCTIVE PARTICLES

E-Mobility is a rising topics all around the world. From the perspective of a long history of steam and combustion engines, the up-and-coming electric drive systems can have a dramatic impact on vehicles, cars and trucks. The green and energy efficiency economy is driving the creation of new fields of research such as quality control in insulation, friction and batteries.

Particles which may not be a risk for moving parts like pistons, can cause a significant breakdown of the electric networking devices if they are conductive. For this reason, the particle material needs to be identified. The Cleanliness Expert solution allows you to track the relevant production process and helps to find the source of contamination to reduce the danger of short circuits and premature wear.

Important change of technology for cleanliness

- Petrol engine: Hard and abrasive metallic particles
- Electronic engine: Low and high conductive particles



VISUAL AND CHEMICAL IDENTIFICATION FOR E-MOBILITY WORKFLOWS BY CLEANLINESS EXPERT



Particle extraction

Prepare sample for investigation using Pall filtration cooperation.



Detect and count

Save time during automatic particle counting by using multiple samples.



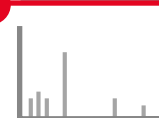
Classify particle

Classify length, width and height according to international standards.



LIBS analysis

Carry out the chemical analysis within a few seconds.



Compare element peaks

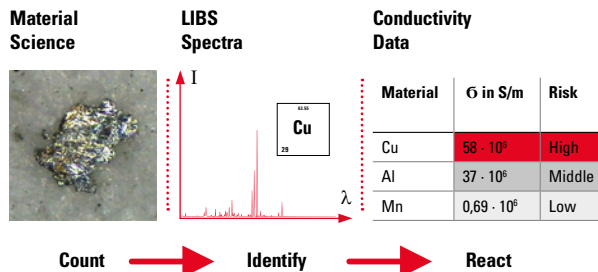
Chemical analysis identifies material if its conductivity is a risk.



DM6 M LIBS Cleanliness solution at E-Mobility

The Cleanliness Expert software from Leica Microsystems supports the next steps required to achieve a safe electronic society. Besides a particle's hardness, also its conductivity is of essential importance to estimate its potential to cause damage.

The 2-in-1 visual and chemical analysis make particle identification and clarification possible with just one click.



CONNECT WITH US!

Leica Microsystems GmbH | Ernst-Leitz-Strasse 17-37 | D-35578 Wetzlar (Germany)
Tel. +49 (0) 6441 29-0 | F +49 (0) 6441 29-2599

www.leica-microsystems.com/LIBS

