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Nota di contenuto	Introduction -- Chapter 1. Fuel consumption and emissions effects in passenger car diesel engines through the use of a belt starter generator -- Chapter 2. Requirements and protection within a 48V automotive wiring system -- Chapter 3. Mixed voltages and aluminum conductors: assessing new electrical technologies -- Chapter 4. Hybrid cars setting new challenges for optimized power semiconductors -- Chapter 5. Specification and design of a switched reluctance 48V belt integrated starter generator (B-ISG) for mild hybrid passenger car applications -- Chapter 6. Optimizing lithium-ion batteries; tailoring electrodes for microhybrid vehicle applications -- Chapter 7. Application of 48 Volt for mild hybrid vehicles and high power loads -- Chapter 8. Advantages for a 48 volt belt starter generator in an ultra-light vehicle powertrain.
Sommario/riassunto	Development of higher-voltage electrical systems in vehicles has been slowly progressing over the past few decades. However, tightening vehicle efficiency and emissions regulations and increasing demand for onboard electrical power means that higher voltages, in the form of supplemental 48 V subsystems, may soon be nearing production as the most cost-effective way to meet regulations. The displacement of high-

wattage loads to more efficient 48 V networks is expected to be the next step in the development of a new generation of mild hybrid vehicles.