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ISBN	3-319-31930-2
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XIII, 336 p. 300 illus., 183 illus. in color.)
Disciplina	629.2
Soggetti	Automotive engineering Energy systems Automotive Engineering Energy Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Mobility: conditions, requirements and scenarios -- Combustion engines: processes, potentials, trends, alternative configurations -- Alternative fuels: energy sources, CNG, LPG, alcohols, hydrogen, oils, synthetic fuels -- Electric propulsion: electro mobility, motors batteries, fuel cells, automobiles with electric propulsion -- Combinations of propulsion systems, energy storage on board, energy conversion on board, range extender, hybrid configurations, plug-in solutions -- Energy management in the development and production of automobiles as a complex system.
Sommario/riassunto	The book presents – based on the most recent research and development results worldwide - the perspectives of new propulsion concepts such as electric cars with batteries and fuel cells, and furthermore plug in hybrids with conventional and alternative fuels. The propulsion concepts are evaluated based on specific power, torque characteristic, acceleration behaviour, specific fuel consumption and pollutant emissions. The alternative fuels are discussed in terms of availability, production, technical complexity of the storage on board, costs, safety and infrastructure. The book presents summarized data about vehicles with electric and hybrid propulsion. The propulsion of future cars will be marked by diversity – from compact electric city cars

and range extender vehicles for suburban and rural areas up to hybrid or plug in SUV´s, Pick up´s and luxury class automobiles.