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ISBN	3-031-62987-6
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Descrizione fisica	1 online resource (130 pages)
Collana	Sustainable Aviation, , 2730-7786
Disciplina	338.4762913334
Soggetti	Aerospace engineering Astronautics Materials Sustainability Vehicles Composite materials Aerospace Technology and Astronautics Materials Engineering Vehicle Engineering Composites
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Selection of Composite Materials for Aircraft -- Biocomposites as Aircraft Materials -- Life Cycle Assessment of the Use of Sustainable Materials in Aviation -- Energy Savings From New Materials and Processes in Aviation -- Green Manufacturing in Aviation -- Additive Manufacturing in Aviation -- Manufacturing Techniques in Electrified Aircraft -- Artificial Intelligence and Machine Learning in the Manufacturing of Aircraft.
Sommario/riassunto	This book offers comprehensive coverage of sustainable materials and manufacturing techniques in aviation that reduce fuel consumption, increase operational efficiency, and make more sustainable use of raw materials, energy, and water during manufacturing. Materials that enable the aircraft to be lightweight without compromising safety issues are covered. The sustainability aspects in selecting the materials

and manufacturing techniques, as well as performance, cost, and environmental aspects are discussed. Artificial intelligence, machine learning, and digital twins in manufacturing are covered. Sustainable Materials and Manufacturing Techniques in Aviation will appeal to a broad readership in the aviation community, including students, engineers, scientists, and researchers, as a reference source for material science and modern production techniques. Offers guidance on the selection of sustainable materials for aircraft; Discusses additive manufacturing for aviation applications; Covers artificial intelligence and machine learning as well as digital twin in manufacturing. .
