1. Record Nr. UNINA9910674049103321

Autore	Ferraris Sara
Titolo	Surface Engineering of Light Alloys
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 electronic resource (140 p.)
Soggetti	Research & information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Light alloys (aluminum, magnesium, and titanium alloys) are gaining increasing interest in the scientific and technological community in many different application fields, from automotive to medicine, thanks to their light weight coupled with interesting mechanical properties. The functional performances of light alloys can be significantly affected by their surface properties; in fact, the surface can be considered as the “visiting card” of the material for its working environment (e.g., it can drive the biological response upon implantation for titanium alloys intended for biomedical implants or it can affect the joining ability of aluminum and magnesium alloys) as well as for its further material working steps (e.g., coatings). Surface engineering is a versatile tool for the modification of material surfaces in order to tailor and improve their functional properties. The aim of the present Special Issue is to present the latest development in this field through research and review papers. In particular, the topics of interest include, but are not limited to, surface engineering of light alloys for biomedical applications, surface engineering of light alloys for joining and coatings applications, surface engineering of light alloys for corrosion protection, and surface engineering of light alloys for antibacterial/antifouling purposes.