

1. Record Nr.	UNINA9910483249903321
Autore	Chen Xizhang
Titolo	Surface Processing of Light Alloys Subject to Concentrated Energy Flows // by Xizhang Chen, Sergey Konovalov, Victor Gromov, Yurii Ivanov
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	981-334-228-5
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIII, 217 p. 172 illus., 46 illus. in color.)
Disciplina	620.186
Soggetti	Metals Materials - Fatigue Materials science Production engineering Metals and Alloys Materials Fatigue Materials Science Process Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Modifying of Structure-Phase States and Properties of Metals by Concentrated Energy Flows -- Special Analysis Aspects of Modified Light Alloys -- Structure and Properties of as Cast Silumin and Processed by Intense Pulsed Electron Beam -- Fractography of Silumin Surface Fractured in High-Cycle Fatigue Tests -- Degradation of Silumin Structure and Properties in High-Cycle Fatigue Tests -- Modifying of Titanium Vt6 Alloy Surface by Electrical Explosion Alloying -- Modifying of Titanium Alloy Vt6 Surface by Electrical Explosion Alloying and Electron-Beam Processing -- Microhardness and Wear Resistance of Modified Layers -- Effect of Electron-Beam Processing on Structure and Phase Composition of Titanium Vt1-0 Fractured In Fatigue Tests.
Sommario/riassunto	This book presents studies on the surface modification of aluminum and titanium alloys by electric explosive alloying and electron-beam processing. It also describes and analyzes the physical mechanism of energy actions of these technologies on physical and mechanical

properties and discusses their potential use in industry to improve the characteristics of finished products. The book is intended for specialists in the field of condensed matter physics, metallurgy and heat treatment and materials science, as well as graduate and senior students in relevant fields. .

---