

1. Record Nr.	UNINA9910830324603321
Autore	Ganiev Rivner Fazylovich
Titolo	Wave technology in mechanical engineering : industrial applications of wave and oscillation phenomena // R. F. Ganiev [and three others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : Scrivener Publishing, , 2015 ©2015
ISBN	1-119-11786-0 1-119-11787-9 1-119-11785-2
Descrizione fisica	1 online resource (158 p.)
Disciplina	620.1 620.1064
Soggetti	Waves Fluid dynamics Oscillations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover; Half Title page; Title page; Copyright page; Preface; Chapter 1: Introduction: Capabilities and Perspectives of Wave Technologies in Industries and in Nanotechnologies; Chapter 2: Fragmentation and Activation of Dry Solid Components: Wave Turbulization of the Medium and Increasing Process Efficiency; 2.1 Calcium Carbonate (limestone) Fragmentation; 2.2 Wave Activation of Cements and Cement-limestone Compositions; 2.3 Grinding Blast-furnace Sullage; 2.4 Production of Coloring Pigment Based on Titanium Dioxide and Dolomitic Marble; 2.5 Wave Treatment of Aluminium Oxide Chapter 3: Wave Stirring (actuation) of Multicomponent Materials (dry mixes)3.1 Technologic Experiments with Installations of Wave Mixing; Chapter 4: Wave Metering Devices and Dosage Metering of Loose Components; Chapter 5: Creating Automated Wave Treatment Trains of Dry Solid Components: High Efficiency in a Restricted Manufacturing Room; Chapter 6: Manufacturing and Wave Treatment Technologies of Emulsions, Suspensions and Foam/Skim; 6.1 Stirring (actuation) Wave Technologies of Various Liquids, Including High-viscosity Media; 6.2

Hydrodynamic Running (through-flowing) Wave Installations
6.3 Wave Technology for Stirring (actuation) of High-viscosity Media
6.4 Production of Cosmetic Cream; 6.6 Production of Finely-dispersed, Chemically Precipitated Barium Sulphate With the Assigned Particle Size; 6.7 Accelerating Fermentation of Sponge Wheat Dough After Wave Treatment; Chapter 7: Wave Mixing of Epoxy Resin with Nanocarbon Micro-additives: Production of Composite Materials; 7.1 Experimental Studies of Mixing the Epoxy Resin with Fullerenes; 7.2 Experimental Studies Mixing Epoxy Resin Technical Carbon; 7.3 Experimental Studies of Mixing Epoxy Resin with Carbon Nanotubes
7.4 Production of Highly-filled Composite Materials with Wave Technologies
7.5 Using the Installation of Wave Mixing for the Preparation of Polymer-cement and Cement Composite Materials Reinforced by Polymer and Inorganic Fibers; 7.6 Production of Organoclay; Chapter 8: Wave Technologies for Food, Including Bread Baking and Confectionary Industries; Chapter 9: Wave Technologies in Oil Production: Improving Oil, Gas and Condensate Yield; Chapter 10: Wave Technologies in Ecology and Energetics; 10.1 Production of Mixed Fuels and Improvement in Combustion Efficiency
Chapter 11: Stabilizing Wave Regimes, Damping Noise, Vibration and Hydraulic Shocks Pipeline Systems
Chapter 12: Wave Technologies in Engineering; Chapter 13: Wave Technologies in Oil Refining, Chemical and Petrochemical Industries; Chapter 14: Conclusions: On Wave Engineering; Literature (the Russian-language original is at the end); Index

Sommario/riassunto

This groundbreaking volume covers the significant advantages of wave technologies in the development of innovative machine building where high technologies with appreciable economic effect are applied. These technologies cover many industries, including the oil-and-gas industry, refining and other chemical processing, petrochemical industry, production of new materials, composite and nano-composites including, construction equipment, environmental protection, pharmacology, power generation, and many others. The technological problem of grinding, fine-scale grinding and activation of solid p
