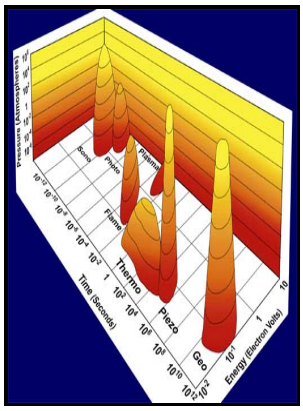
Ultrasound - its chemical, physical, and biological effects

VCH Publishers - Ultrasound Its Chemical Physical And Biological Effects PDF Book



Description: -
-
Korean fiction -- 20th century -- History and criticism
Portuguese language -- Dictionaries -- Greek, Modern
Greek language, Modern -- Dictionaries -- Portuguese
Fracture mechanics -- Congresses.
Metals -- Fracture -- Congresses.
Travelling waves
Gortler vortices
Austria -- Officials and employees.
Biochemistry.
Ultrasonic waves.Ultrasound - its chemical, physical, and biological effects
-Ultrasound - its chemical, physical, and biological effects
Notes: Includes bibliographies and index.
This edition was published in 1988

Filesize: 61.76 MB

Tags: #Review #of #Therapeutic #Ultrasound: #Biophysical #Effects

The Physical and Chemical Effects of Ultrasound

Such an increase in temperature occurs if the rate of ultrasound-induced heat production exceeds dissipation of heat through tissue perfusion. The only experimental evidence for ultrasonically altered membrane permeability, however, comes from studies of cell cultures for which there was good evidence that cavitation occurred.

Suslick, K.S. (1988) Ultrasound, its chemical, physical and biological effects. VCH, Berlin.

This finding was based on detection of increased extracellular potassium following administration of 1-MHz continuous ultrasound at an intensity of 0.

Review of Therapeutic Ultrasound: Biophysical Effects

.

The effects of ultrasound on cyanobacteria

Conversely, acoustic fields that give rise to heating are always accompanied by nonthermal effects. Other mechanical effects are considered to be created by small oscillation of particles due to the movement of ultrasound waves through tissues. Not only is mechanical trauma a known cause of mast cell degranulation, it can also cause increased passive cell membrane permeability.

Ultrasound Its Chemical Physical And Biological Effects PDF Book

For example, Lota and Darling reported changes in the permeability of the red blood cell membrane in a homogeneous ultrasonic field. The World Federation of Ultrasound in Medicine and Biology and the European Federation of Societies for Ultrasound in Medicine and Biology further recommend limiting the ultrasound exposure duration during Doppler mode sonography. The resultant tissue temperature following heating will primarily depend on the extent of conduction into surrounding tissues and dissipation by blood perfusion.

Review of Therapeutic Ultrasound: Biophysical Effects

Using a Biothesiometer Biomedical Instrument Company, Newbury, Ohio to measure vibration threshold, a temporary increase in vibration threshold was noted after the application of therapeutic ultrasound 1. The British Medical Ultrasound Society also cautions about the potential for cavitation at mechanical indices more than 0.

Ultrasound: its chemical, physical, and biological effects — University of Illinois Urbana

While at sufficiently high power, it generates shear forces that are able to create different effects.

Related Books

- Sailing a small boat.
- Math connections - activities for grades 4-6
- Trust, economic rationality, and the corporate fiduciary obligation
- Saint Maugan - evêque et confesseur
- Racism - an American cauldron