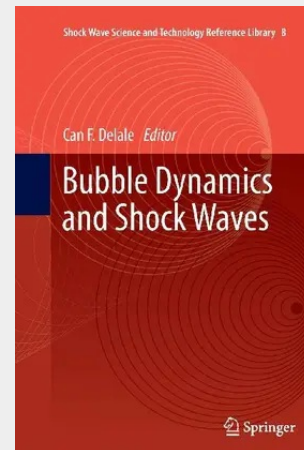


Bubble Dynamics and Shock Waves

This volume of the Shock Wave Science and Technology Reference Library is concerned with the interplay between bubble dynamics and shock waves. It is divided into four parts containing twelve chapters written by eminent scientists. Topics discussed include shock wave emission by laser generated bubbles (W Lauterborn, A Vogel), pulsating bubbles near boundaries (DM Leppinen, QX Wang, JR Blake), interaction of shock waves with bubble clouds (CD Ohl, SW Ohl), shock propagation in polydispersed bubbly liquids by model equations (K Ando, T Colonius, CE Brennen, T Yano, T Kanagawa, M Watanabe, S Fujikawa) and by DNS (G Tryggvason, S Dabiri), shocks in cavitating flows (NA Adams, SJ Schmidt, CF Delale, GH Schnerr, S Pasinlioglu) together with applications involving encapsulated bubble dynamics in imaging (AA Doinikov, A Novell, JM Escoffre, A Bouakaz), shock wave lithotripsy (P Zhong), sterilization of ships' ballast water (A Abe, H Mimura) and bubbly flow model of volcano eruptions ((VK Kedrinskii, K Takayama). The book offers a timely reference for graduate students as well as professional scientists and engineers interested in the interaction of shock waves with bubbles and their propagation properties in bubbly liquids with applications in medical and earth sciences.

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