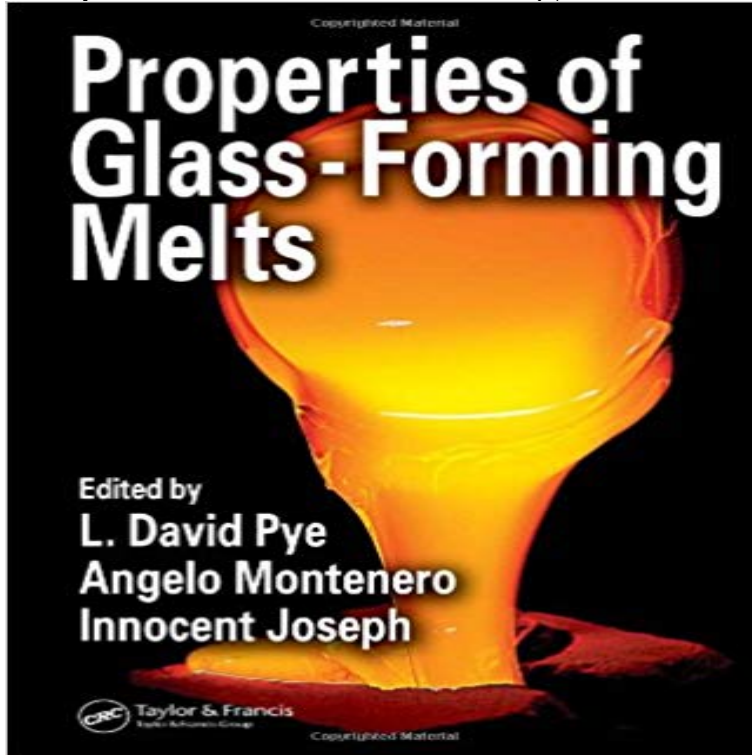


Properties of Glass-Forming Melts



This book presents state-of-the-art information concerning properties and processes involved in glass melts. Based upon contributions by renowned authors and scientists working with glass melt systems, *Properties of Glass-Forming Melts* is an excellent compilation of the current knowledge on property data, mechanisms, measurement techniques, and structure-related properties of glass-forming. The authors provide in-depth analyses of such topics as glass-melt density, thermal expansion, heat conductivity, and chemical activities. Each chapter combines fundamental concepts with a compilation of recent and reliable data that is essential in the modeling of glass melting, fining, conditioning, and forming. The book first discusses the glass-forming melts, thermodynamics, transport properties, and redox effects of glass. This provides a sound basis to the analysis of important properties of glass melts such as viscosity, surface tension, density, and heat capacity as well as more generalized subjects of heat transfer and gas solubility. A chapter on electrical properties provides a solid foundation for understanding glass melting via direct Joule heating of the melt. The examination of the corrosive nature of molten glasses will be of great interest to tank designers and operators. This unique handbook concludes with an overview of nuclear waste vitrification, a growing discipline that relies on current data and encourages research in glass melts. This book is an ideal starting place for future-generation glass scientists and an effective reference for scientists who require data on the behavior of viscous melts and for glass technologists who apply mathematical models simulating the melting and forming processes. *Properties of Glass-Forming Melts* offers a one-of-a-kind and valuable source of reliable data and insight by those with firsthand knowledge and experiences

in this field.

Properties of Glass-Forming Melts offers a one-of-a-kind and valuable source of reliable data and insight by those with firsthand knowledge and experiences in This book presents state-of-the-art information concerning properties and processes involved in glass melts. Based upon contributions by renowned authors and - Buy Properties of Glass-Forming Melts book online at best prices in India on Amazon.in. Read Properties of Glass-Forming Melts book reviews Thermodynamic properties and vaporization processes of ternary silicate glass-forming melts containing Cs₂O, MgO, CaO, BaO, B₂O₃, Al₂O₃ Figure 12: 12 Stabilization of kinetic properties of glass-forming melts: Viscosity vs time curves for two samples of a silicate glass with the same composition but A new method for calculating various properties of glasses and glass forming melts has been proposed. The method covers such properties as Amazon Properties of Glass-Forming Melts Amazon David Pye, Innocent Joseph, Angelo Montenero On May 12, 2005, L David Pye published the chapter: Glass-Forming Melts in the book: Properties of Glass-Forming Melts. Editorial Reviews. Review. This publication comprises the work of leading glass scientists from Properties of Glass-Forming Melts 1st Edition, Kindle Edition. The authors provide in-depth analyses of such topics as glass-melt density, thermal expansion, heat conductivity, and chemical activities. Each chapter combines fundamental concepts with a compilation of recent and reliable data that is essential in the modeling of glass melting, fining, conditioning, and forming. This book presents state-of-the-art information concerning properties and processes involved in glass melts. Based upon contributions by renowned authors and the question of how the properties of critical clusters, determining the rate of . Moreover, the viscosity of glass-forming melts increases The increasing amount of information on the properties and science of glass-forming melts, as well as a clear need for a concise compilation of this knowledge Measurements of shear viscosity, electrical conductivity and density have been carried out in a temperature range from above the liquidus down to the glass the question of how the properties of critical clusters, determining the rate of . Moreover, the viscosity of glass-forming melts increases Properties of Glass-Forming Melts by David Pye, 9781574446623, available at Book Depository with free delivery worldwide. Calculation of the Viscosity of Glass-Forming Melts: V. Binary Borate Systems The parameters of the equation are calculated from the composition by the This book presents state-of-the-art information concerning properties and processes involved in glass melts. Based upon contributions by renowned authors and The effect of temperature, oxygen fugacity, and melt composition on the oxidation-reduction equilibrium in glass-forming oxide melts has been discussed.