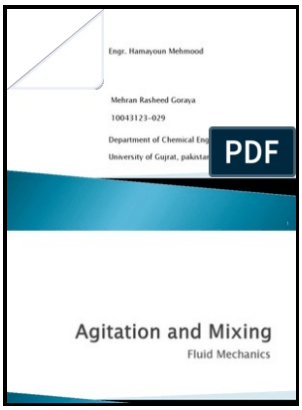
Agitation and mixing by helical impellers in highly viscous and non-Newtonian liquids.

University of Salford - Optimize Heat Transfer of Viscous Fluids in Agitated Vessels



Description: -
-Agitation and mixing by helical impellers in highly viscous and non-Newtonian liquids.
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ND3284/73Agitation and mixing by helical impellers in highly viscous and non-Newtonian liquids.
Notes: PhD thesis, Chemical Engineering.
This edition was published in 1972

Tags: #[PDF] #Experimental #and #CFD #studies #of #power #consumption #in #the #agitation #of #highly #viscous #shear #thinning #fluids

Optimize Heat Transfer of Viscous Fluids in Agitated Vessels

Isotropic turbulence is the rare case in which the root, mean and square fluctuating velocity measurements are the same.

Agitation and Mixing of Fluids and Power Requirements

Research has been carried out into the flows of various different fluids with both Newtonian and non-Newtonian rheology in vessels with many different impeller geometries, often with the primary aim of characterising the effectiveness of new blade designs Ihejirika and Ein-Mozaffari, 2007; Szalai et al. Pitched blade turbines VTS, VTG Turbine composed of 4 blades usually inclined 45º.

Mixing in food processing

The hydrodynamic and the residence time distribution RTD behavior of the viscous Newtonian fluid was studied using a tracer age distribution function, I θ.

Numerical Study of Mixing of Different Newtonian and Non

Decide Whether You Want Shear Processes with low Reynolds numbers usually create shear - a phenomenon that is created through the separation of velocities between streamlines. However, the highly striated flow nature is common to all rheologies, with the viscoelastic flows both displaying a highly striated flow pattern with stretching patterns clearly seen, indicating an elastic response.

Power Correlations for Close

Table 2: Calibration constants and correlation coefficients Impeller c - R 2 k - R 2 k' m -3 helical ribbon 1 HR39 290.

[PDF] EFFECTS OF GEOMETRICAL VARIABLES OF HELICAL RIBBON IMPELLERS ON MIXING OF HIGHLY VISCOUS

NEWTONIAN LIQUIDS

This is a condition that is usually brought about within the viscous flow range.

CONSTRUCTION AND OPERATION OF AN IMPELLER RHEOMETER FOR ON

Depending on the type of regime and viscosity of the media to be mixed, our technical-commercial department will help you select the stirrer model with the most suitable profile. The dual pumping action produces a flow pattern similar to low viscosity fluids. Flow is described in terms of the intensity it creates.

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