

LIST OF PUBLICATIONS
containing scientific results and models used in VisiMix programs
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BOOKS :

"Mixing of Liquids. Theoretical Basements and Methods of Technical Calculation." - *Chimia*, Leningrad, 1984, 336 pp;

"Mathematical Simulation of Sewage Aeration Units."- *Chimia*, Leningrad ,1980, 144 pp;

"Mechanical Mixing Devices. The Method for Calculation." (State standard) - Leningrad, 1976, 1988, 100 pp.

ARTICLES:

"A Method for Calculation of Effective Viscosity and Mixing Power in Non-Newtonian Media. Annual Meeting of AIChE, Dallas, 1999.

"Major Parameters of Turbulent Flows In Mixing Tanks Calculated and Used by VisiMix software". Annual Meeting of AIChE, Dallas, 1999.

"Heat Transfer Analysis in VisiMix 2000 Laminar. NAMF Conference, 1999.

"Kinetics of Break-Up and Coalescence of Drops in Mixing Vessels." - International Symposium on Liquid-Liquid Two Phase Flow and Transport Phenomena, Antalya, Turkey, 1997, pp.567-574.

"Kinetics of Break-Up and Coalescence of Drops in Mixing Vessels." - 11th International Congress on Chemical Engineering "CHISA". 1993, Prague, Czech Republic;

"Influence of Turbulence and Viscosities on the Kinetics of Drop Breaking" *J.Disp.Sci.Tech.*,USA, 1993, N3;

"The Modern Approach to Modeling and Improvement of Unit Operations in Mixing Equipment". *Chemie (Israel)*, 1992, N12;

"The Effect of Viscosity on Break-Up of Drops in Mixing Vessels". - *Theor. Found. of Chem. Engng (USSR)*, USA,1992,v.25,N4;

"Break-Up of Drops by Mixing in the Absence of Coalescence". - *Theor. Found. of Chem. Engng(USSR)*, USA, 1991,v.24, N4;

"On Application of Mixing Apparatus to Agitation of Highly Concentrated Suspensions".-*Theor. Found. of Chem. Engng (USSR)*, USA, 1991,v.24, N1;

"The Meridian Circulation of Liquid in Baffled Mixing Vessels". *Theor. Found. of Chem. Engng (USSR)*, USA,1989,v.22, N6;

"Calculation of Gas Hold-Up in Mixing Vessels".- Theor. Found. of Chem. Engng (USSR), USA, 1988, v.21, N5;

"Effect of a Near-Wall Turbulence on Mixing Hydrodynamics".- Theor. Found. of Chem. Engng (USSR), USA, 1987, v.20, N64;

"Effect of Suspended Solid Particles on Local Characteristics of Turbulence". - Materials of the 5th All-Union Conference on Mixing, 1986, Leningrad, Zelenogorsk;

"Characteristics of Macro-scale Turbulent Transfer in Baffled Mixing Vessels".-Theor. Found. of Chem. Engng (USSR), USA, 1987, v. 20, N64;

"Gas Hold-Up in Surface Area of Agitated Liquid".- Materials of 5th All-Union Conference on Mixing, 1986, Leningrad, Zelenogorsk;

"On Local Coefficients of Heat Transfer in Mixing Vessels". - The Heat Transfer Equipment, 1986, Moscow, NIICHIMMASH;

"Calculation of Continuous Dissolution of Particles of Unknown Size Distribution". - Journal of Applied Chemistry(USSR),USA, 1985, v.57, N12;

"Dynamics of Non-Stationary Heat Transfer in Vessels with Coils". - Materials of 2nd All-Union Conference on Dynamics of Unit Operations of Chemical Technology, 1985, Voronezh;

"Calculation of Heat Transfer in Vessels with Mechanical Mixing". - Theor. Found. of Chem. Engng (USSR), USA, 1983, v.16, N6;

"Dissolution of Solid Particles Suspended in Agitated Vessels". - Chem. Engng Commun.(USA), 1983, v.21, pp 259-271;

"Evaluation of Heat and Mass Transfer Rates in Flows With External Sources of Turbulence".- Eng. Physical Journal (USSR), USA, 1982, v.12, N1;

"Modeling of Distribution of Temperature and Concentrations in Mixing Equipment". - Materials of 11th Mendeleev's Congress, 1981, Baku;

"Generalized Method to Calculate Power Consumption when Mixing Viscous Newtonian and Non-Newtonian Media".- Theor. Found. of Chem. Engng (USSR),USA, 1980, v.14, N1;

"Homogenization Time in Apparatus with Ribbon Agitators under Laminar Flow Conditions".-Theor. Found. of Chem. Engng (USSR), USA, 1978,v.11, No.6;

"Method for Calculation of Circumference Flow Rate in Vessels with Screw and Ribbon Agitators."- Chem. Machinery(USSR),1978, N3;

"Calculation of the Effective Viscosity when Mixing of Non-Newtonian media." - Materials of the All-Union Conference on Chem. Equipment, 1977,v.2;

"Radial Distribution of Temperature and Heat Transfer in Mixing Apparatus". - Materials of 3rd All-Union Conference on Mixing, 1976, Cherkassy;

"Mathematical Description of the Thermal Conditions in Rotating Stoves". - Theor. Found. of Chem. Engng (USSR), USA, 1976, v.9, N6;

"The Mean Residence Time of Particles in Suspensions Stirred in Smooth -Walled Mixing Vessels".- Theor. Found. of Chem. Engng (USSR), USA, 1975, v.9, N2;

"Investigations of the Fields of Velocities and Radial Turbulent Transfer under Conditions Characteristic of Large Scale Basins". - Theor. Found. of Chem. Engng (USSR), USA, 1975, v.9, N1;

"Mathematical Modeling of Non-Stationary Transfer of Heat and Solutes when Agitating Highly Viscous Media". - Materials of 5th All-Union Conference on Chemical Reactors, 1974, Ufa;

"Heat Transfer in Tubular Scraped-wall Heat Exchangers with Variable Jacket Temperature". - Theor. Found. of Chem. Engng (USSR), USA, 1970, v.4, N2;

"Heat Transfer in Heat Exchangers with Scraper Stirrers". - Theor. Found. of Chem. Engng (USSR), USA, 1969, v.3, N2;

"Relationship Between the Foam Formation and Destruction Rates". - Journal of Applied Chemistry (USSR), USA, 1970, v.42, N10;

"On Turbulent Diffusivity in Mixing Vessels". - Materials of 3rd All-Union Conference on Heat and Mass Transfer, v.4, 1968, Minsk;

"Selection of Optimal Heat Transfer Mixing Equipment". - Scientific Works of LENNIICHIMMASH, 1967, N2;

"On Heat Transfer in Mixing Equipment". - Unit Operations of Chemical Technology. Hydrodynamics, Heat and Mass Transfer. Science, Leningrad, 1965;

"Relation Between the Surface Renovation Factor and Mixing Conditions in the Lewis's Cell".- Journal of Applied Chemistry (USSR), USA, 1965, v.38, N6;

"Heat Exchange in Vessels with Scraper Agitators". - Journal of Applied Chemistry (USSR), USA, 1964, v.37, N9.