

# Sankaran Sundaresan

## List of Publications by Year in descending order

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167  
papers

9,267  
citations

28190

55  
h-index

43802

91  
g-index

169  
all docs

169  
docs citations

169  
times ranked

3923  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Plasma-assisted catalysis for ammonia synthesis in a dielectric barrier discharge reactor: key surface reaction steps and potential causes of low energy yield. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 055202. | 1.3 | 10        |
| 2  | <i>In Situ</i> Identification of NNH and N <sub>2</sub> H <sub>2</sub> by Using Molecular-Beam Mass Spectrometry in Plasma-Assisted Catalysis for NH <sub>3</sub> Synthesis. <i>ACS Energy Letters</i> , 2022, 7, 53-58.      | 8.8 | 25        |
| 3  | The effect of gas on tribocharging of particles in a vibrated bed. <i>Powder Technology</i> , 2022, 401, 117272.  | 2.1 | 7         |
| 4  | Development of data-driven filtered drag model for industrial-scale fluidized beds. <i>Chemical Engineering Science</i> , 2021, 230, 116235.  | 1.9 | 35        |
| 5  | Mid-Infrared Scattering in $\hat{\gamma}$ -Al <sub>2</sub> O <sub>3</sub> Catalytic Powders. <i>Applied Spectroscopy</i> , 2021, 75, 706-717.   | 1.2 | 0         |
| 6  | Particle-based coarse-grained approach for simulating dry powder inhaler. <i>International Journal of Pharmaceutics</i> , 2021, 606, 120821.  | 2.6 | 9         |
| 7  | Effects of dose loading conditions and device geometry on the transport and aerosolization in dry powder inhalers: A simulation study. <i>International Journal of Pharmaceutics</i> , 2021, 610, 121219.                     | 2.6 | 6         |
| 8  | Effect of particle size on tribocharging. <i>Powder Technology</i> , 2020, 375, 199-209.  | 2.1 | 13        |
| 9  | Coarse graining Euler-Lagrange simulations of cohesive particle fluidization. <i>Powder Technology</i> , 2020, 364, 167-182.  | 2.1 | 40        |
| 10 | On modelling shear layers in dense granular flows. <i>Journal of Fluid Mechanics</i> , 2020, 892, .   | 1.4 | 3         |
| 11 | <i>110th Anniversary</i> : Effect of System Size on Boundary-Driven Contact Charging in Particulate Flows. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 17980-17990.                                    | 1.8 | 5         |
| 12 | Neural-network-based filtered drag model for gas-particle flows. <i>Powder Technology</i> , 2019, 346, 403-413.   | 2.1 | 74        |
| 13 | Computationally generated constitutive models for particle phase rheology in gas-fluidized suspensions. <i>Journal of Fluid Mechanics</i> , 2019, 860, 318-349.   | 1.4 | 32        |
| 14 | Introducing a variable speed of sound in single-component lattice Boltzmann simulations of isothermal fluid flows. <i>Computers and Fluids</i> , 2018, 167, 129-145.  | 1.3 | 5         |
| 15 | Toward Constitutive Models for Momentum, Species, and Energy Transport in Gas-Particle Flows. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2018, 9, 61-81.   | 3.3 | 125       |
| 16 | Effects of Polarization on Particle-Laden Flows. <i>Physical Review Letters</i> , 2018, 121, 124503.  | 2.9 | 15        |
| 17 | Experimental and numerical study of wall layer development in a tribocharged fluidized bed. <i>Journal of Fluid Mechanics</i> , 2018, 849, 860-884.   | 1.4 | 40        |
| 18 | Eulerian modelling of gas-solid flows with triboelectric charging. <i>Journal of Fluid Mechanics</i> , 2018, 848, 340-369.  | 1.4 | 25        |

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|----|---|-----|-----------|
| 19 | Multiple timescale contact charging. <i>Physical Review Materials</i> , 2018, 2, .  | 0.9 | 5         |
| 20 | Growth and breakup of a wet agglomerate in a dry gas–solid fluidized bed. <i>AIChE Journal</i> , 2017, 63, 2520-2527.   | 1.8 | 29        |
| 21 | Analysis of the effect of small amounts of liquid on gas–solid fluidization using CFD–DEM simulations. <i>AIChE Journal</i> , 2017, 63, 5290-5302.                                      | 1.8 | 31        |
| 22 | Forward osmosis using draw solutions manifesting liquid-liquid phase separation. <i>Desalination</i> , 2017, 421, 23-31.  | 4.0 | 16        |
| 23 | Effective particle diameters for simulating fluidization of non-spherical particles: CFD–DEM models vs. MRI measurements. <i>AIChE Journal</i> , 2017, 63, 2555-2568.                   | 1.8 | 19        |
| 24 | A tribute to professor Roy Jackson: Intellectual leader, scholar, mentor. <i>AIChE Journal</i> , 2017, 63, 5239-5249.   | 1.8 | 0         |
| 25 | Effect of humidity on triboelectric charging in a vertically vibrated granular bed: Experiments and modeling. <i>Chemical Engineering Science</i> , 2017, 173, 363-373.                 | 1.9 | 37        |
| 26 | Dynamics of Tissue-Induced Alignment of Fibrous Extracellular Matrix. <i>Biophysical Journal</i> , 2017, 113, 702-713.  | 0.2 | 57        |
| 27 | A Tribute to Roy Jackson. <i>AIChE Journal</i> , 2017, 63, 5238-5238.   | 1.8 | 0         |
| 28 | Lattice Boltzmann simulations of low-Reynolds-number flows past fluidized spheres: effect of inhomogeneities on the drag force. <i>Journal of Fluid Mechanics</i> , 2017, 833, 599-630. | 1.4 | 48        |
| 29 | Towards filtered drag force model for non-cohesive and cohesive particle-gas flows. <i>Physics of Fluids</i> , 2017, 29, .  | 1.6 | 67        |
| 30 | Triboelectric charging of monodisperse particles in fluidized beds. <i>AIChE Journal</i> , 2017, 63, 1872-1891.   | 1.8 | 37        |
| 31 | Numerical studies of the effects of fines on fluidization. <i>AIChE Journal</i> , 2016, 62, 2271-2281.  | 1.8 | 23        |
| 32 | Lattice Boltzmann simulations of low-Reynolds-number flow past fluidized spheres: effect of Stokes number on drag force. <i>Journal of Fluid Mechanics</i> , 2016, 788, 576-601.        | 1.4 | 86        |
| 33 | Sub-grid models for heat transfer in gas-particle flows with immersed horizontal cylinders. <i>Chemical Engineering Science</i> , 2016, 151, 7-15.                                      | 1.9 | 19        |
| 34 | Rheology of granular materials with size distributions across dense-flow regimes. <i>Powder Technology</i> , 2016, 295, 322-329.  | 2.1 | 23        |
| 35 | Filtered sub-grid constitutive models for fluidized gas-particle flows constructed from 3-D simulations. <i>Chemical Engineering Science</i> , 2016, 152, 443-456.                      | 1.9 | 114       |
| 36 | Intrusion of a Liquid Droplet into a Powder under Gravity. <i>Langmuir</i> , 2016, 32, 8631-8640.   | 1.6 | 13        |

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|----|---|-----|-----------|
| 37 | Fluid and particle coarsening of drag force for discrete-parcel approach. Chemical Engineering Science, 2016, 155, 258-267.   | 1.9 | 77        |
| 38 | A hybrid approach to computing electrostatic forces in fluidized beds of charged particles. AICHE Journal, 2016, 62, 2282-2295.   | 1.8 | 44        |
| 39 | Formation of cyclopentane methane binary clathrate hydrate in brine solutions. Chemical Engineering Science, 2016, 141, 125-132.  | 1.9 | 61        |
| 40 | Simulating wet gas-solid fluidized beds using coarse-grid CFD-DEM. Chemical Engineering Science, 2016, 144, 224-238.  | 1.9 | 59        |
| 41 | A modified cohesion model for CFD-DEM simulations of fluidization. Powder Technology, 2016, 296, 17-28.   | 2.1 | 82        |
| 42 | Validation of filtered two-fluid models for gas-particle flows against experimental data from bubbling fluidized bed. Powder Technology, 2015, 284, 159-169.            | 2.1 | 39        |
| 43 | Sub-Grid Filtering Model for Multiphase Heat Transfer With Immersed Tubes. , 2014, , .  |     | 1         |
| 44 | A drag model for filtered Euler-Lagrange simulations of clustered gas-particle suspensions. Chemical Engineering Science, 2014, 117, 416-425.                           | 1.9 | 160       |
| 45 | Rheology of cohesive granular materials across multiple dense-flow regimes. Physical Review E, 2014, 90, 032206.  | 0.8 | 41        |
| 46 | Verification of sub-grid filtered drag models for gas-particle fluidized beds with immersed cylinder arrays. Chemical Engineering Science, 2014, 114, 144-154.          | 1.9 | 32        |
| 47 | Formation kinetics of cyclopentane-methane binary clathrate hydrate. Chemical Engineering Science, 2014, 119, 147-157.  | 1.9 | 37        |
| 48 | Carbon Capture Simulation Initiative: A Case Study in Multiscale Modeling and New Challenges. Annual Review of Chemical and Biomolecular Engineering, 2014, 5, 301-323. | 3.3 | 66        |
| 49 | Filtered models for bidisperse gas-particle flows. Chemical Engineering Science, 2014, 108, 67-86.  | 1.9 | 30        |
| 50 | Radial hopper flow prediction using a constitutive model with microstructure evolution. Powder Technology, 2013, 242, 81-85.  | 2.1 | 14        |
| 51 | Periodic flow structures in vertical gas-particle flows. Powder Technology, 2013, 241, 174-180.   | 2.1 | 1         |
| 52 | Filtered two-fluid models of fluidized gas-particle flows: New constitutive relations. AICHE Journal, 2013, 59, 3265-3275.  | 1.8 | 174       |
| 53 | Lattice-Boltzmann-based two-phase thermal model for simulating phase change. Physical Review E, 2013, 88, 033302.   | 0.8 | 27        |
| 54 | Filtered models for scalar transport in gas-particle flows. Chemical Engineering Science, 2013, 95, 291-300.  | 1.9 | 65        |

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|----|--|-----|-----------|
| 55 | Role of hydrodynamics on chemical reactor performance. <i>Current Opinion in Chemical Engineering</i> , 2013, 2, 325-330.  | 3.8 | 16        |
| 56 | Sub-grid drag models for horizontal cylinder arrays immersed in gas-particle multiphase flows. <i>Chemical Engineering Science</i> , 2013, 104, 399-412.                                       | 1.9 | 25        |
| 57 | Dynamics of Single Rising Bubbles in Neutrally Buoyant Liquid-Solid Suspensions. <i>Physical Review Letters</i> , 2013, 110, 244501.   | 2.9 | 23        |
| 58 | A modified kinetic theory for frictional granular flows in dense and dilute regimes. <i>Physics of Fluids</i> , 2013, 25, .  | 1.6 | 100       |
| 59 | Bridging the rheology of granular flows in three regimes. <i>Physical Review E</i> , 2012, 85, 021305.   | 0.8 | 215       |
| 60 | Effect of microstructural anisotropy on the fluid's particle drag force and the stability of the uniformly fluidized state. <i>Journal of Fluid Mechanics</i> , 2012, 713, 27-49.              | 1.4 | 12        |
| 61 | Filtered models for reacting gas-particle flows. <i>Chemical Engineering Science</i> , 2012, 82, 132-143.  | 1.9 | 62        |
| 62 | Validation Studies on Filtered Model Equations for Gas-Particle Flows in Risers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 2094-2103.                                 | 1.8 | 84        |
| 63 | Experimental and computational studies of dense granular flow: Transition from quasi-static to intermediate regime in a Couette shear device. <i>Powder Technology</i> , 2012, 220, 7-14.      | 2.1 | 15        |
| 64 | Do we need sub-grid scale corrections for both continuum and discrete gas-particle flow models?. <i>Powder Technology</i> , 2012, 220, 2-6.  | 2.1 | 74        |
| 65 | Professor M. S. Ananth: Leading Researcher, Gifted Teacher, and Visionary Leader of Higher Education in India. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 12845-12846. | 1.8 | 1         |
| 66 | Constitutive Models for Filtered Two-Fluid Models of Fluidized Gas-particle Flows. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 13190-13201.                             | 1.8 | 144       |
| 67 | A lattice Boltzmann study on the drag force in bubble swarms. <i>Journal of Fluid Mechanics</i> , 2011, 679, 101-121.  | 1.4 | 16        |
| 68 | A constitutive model with microstructure evolution for flow of rate-independent granular materials. <i>Journal of Fluid Mechanics</i> , 2011, 682, 590-616.                                    | 1.4 | 141       |
| 69 | Meso-scale structures of bidisperse mixtures of particles fluidized by a gas. <i>Chemical Engineering Science</i> , 2011, 66, 4403-4420.   | 1.9 | 24        |
| 70 | Nanoparticle mixing through rapid expansion of high pressure and supercritical suspensions. <i>Journal of Nanoparticle Research</i> , 2011, 13, 4253-4266.                                     | 0.8 | 20        |
| 71 | Efficiency of hydrogen recovery from reformat with a polymer electrolyte hydrogen pump. <i>AIChE Journal</i> , 2011, 57, 1767-1779.  | 1.8 | 41        |
| 72 | Verification of filtered two-fluid models for gas-particle flows in risers. <i>AIChE Journal</i> , 2011, 57, 2691-2707.  | 1.8 | 106       |

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|----|--|-----|-----------|
| 73 | Contact line motion without slip in lattice Boltzmann simulations. <i>Chemical Engineering Science</i> , 2011, 66, 3452-3458.  | 1.9 | 11        |
| 74 | Environmentally benign dry mechanical mixing of nano-particles using magnetically assisted impaction mixing process. <i>Powder Technology</i> , 2011, 209, 138-146.                        | 2.1 | 12        |
| 75 | Fluidâ€particle drag in inertial polydisperse gasâ€solid suspensions. <i>AIChE Journal</i> , 2010, 56, 1995-2004.  | 1.8 | 28        |
| 76 | Transmission of stresses in static and sheared granular beds: The influence of particle size, shearing rate, layer thickness and sensor size. <i>Powder Technology</i> , 2010, 203, 23-32. | 2.1 | 10        |
| 77 | A plasticity model with microstructure evolution for quasi-static granular flows. <i>AIP Conference Proceedings</i> , 2010, , .  | 0.3 | 4         |
| 78 | Permeability in Fixed Beds of Spheres with Size Distributions and Stochastically Generated Porous Media Analogs. , 2010, , .   |     | 2         |
| 79 | Unsteady Shear of Dense Assemblies of Cohesive Granular Materials under Constant Volume Conditions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 5153-5165.          | 1.8 | 6         |
| 80 | Preface: 21st International Symposium on Chemical Reaction Engineering (ISCRE 21). <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 10153-10153.                         | 1.8 | 2         |
| 81 | Fluidâ€particle drag in lowâ€Reynoldsâ€number polydisperse gasâ€solid suspensions. <i>AIChE Journal</i> , 2009, 55, 1352-1368.   | 1.8 | 108       |
| 82 | Deagglomeration of nanoparticle aggregates via rapid expansion of supercritical or highâ€pressure suspensions. <i>AIChE Journal</i> , 2009, 55, 2807-2826.                                 | 1.8 | 53        |
| 83 | Drag Law for Bidisperse Gasâ€Solid Suspensions Containing Equally Sized Spheres. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 227-241.                               | 1.8 | 59        |
| 84 | Twoâ€way coupled largeâ€eddy simulations of the gasâ€solid flow in cyclone separators. <i>AIChE Journal</i> , 2008, 54, 872-885.   | 1.8 | 96        |
| 85 | Filtered twoâ€fluid models for fluidized gasâ€particle suspensions. <i>AIChE Journal</i> , 2008, 54, 1431-1448.  | 1.8 | 379       |
| 86 | Shear flow of assemblies of cohesive granular materials under constant applied normal stress. <i>Powder Technology</i> , 2008, 183, 340-355.   | 2.1 | 9         |
| 87 | Lattice Boltzmann Simulation of Two-Fluid Model Equations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 9165-9173.   | 1.8 | 18        |
| 88 | Multifunctional Catalyst for Fischer-Tropsch Synthesis. <i>ACS Symposium Series</i> , 2007, , 75-85.   | 0.5 | 0         |
| 89 | ExSact: Novel Solid-Acid Catalyzed Iso-Paraffin Alkylolation Process. <i>ACS Symposium Series</i> , 2007, , 181-193.   | 0.5 | 0         |
| 90 | Direct numerical simulations of dense suspensions: wave instabilities in liquid-fluidized beds. <i>Journal of Fluid Mechanics</i> , 2007, 587, 303-336.                                    | 1.4 | 99        |

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|-----|---|------|-----------|
| 91  | Particle Simulation of Vibrated Gas-Fluidized Beds of Cohesive Fine Powders. Industrial & Engineering Chemistry Research, 2006, 45, 6966-6977.                              | 1.8  | 18        |
| 92  | Analysis of unsteady forces in ordered arrays of monodisperse spheres. Journal of Fluid Mechanics, 2006, 552, 257.  | 1.4  | 15        |
| 93  | Simulation of mass-loading effects in gas-solid cyclone separators. Powder Technology, 2006, 163, 59-68.  | 2.1  | 115       |
| 94  | Shear flow of assemblies of cohesive and non-cohesive granular materials. Powder Technology, 2006, 169, 10-21.  | 2.1  | 41        |
| 95  | SIMULATION OF BUBBLE BREAKUP DYNAMICS IN HOMOGENEOUS TURBULENCE. Chemical Engineering Communications, 2006, 193, 1038-1063.   | 1.5  | 57        |
| 96  | Coarse-Grid Simulation of Gas-Particle Flows in Vertical Risers. Industrial & Engineering Chemistry Research, 2005, 44, 6022-6037.  | 1.8  | 225       |
| 97  | Silo music and silo quake: granular flow-induced vibration. Powder Technology, 2004, 145, 190-202.  | 2.1  | 56        |
| 98  | Coarse bifurcation studies of bubble flow lattice Boltzmann simulations. Chemical Engineering Science, 2004, 59, 2357-2362.   | 1.9  | 28        |
| 99  | Aerated vibrofluidization of silica nanoparticles. AIChE Journal, 2004, 50, 1776-1785.  | 1.8  | 179       |
| 100 | Analysis of a frictional kinetic model for gas-particle flow. Powder Technology, 2003, 129, 72-85.  | 2.1  | 330       |
| 101 | Electrical capacitance tomography measurements on vertical and inclined pneumatic conveying of granular solids. Chemical Engineering Science, 2003, 58, 4225-4245.          | 1.9  | 95        |
| 102 | A comparative study of lattice Boltzmann and front-tracking finite-difference methods for bubble simulations. International Journal of Multiphase Flow, 2003, 29, 109-116.  | 1.6  | 58        |
| 103 | Workshop Findings. International Journal of Multiphase Flow, 2003, 29, 1047-1059.   | 1.6  | 14        |
| 104 | Appendix 2: Report of study group on disperse flow. International Journal of Multiphase Flow, 2003, 29, 1069-1087.  | 1.6  | 19        |
| 105 | INSTABILITIES IN FLUIDIZED BEDS. Annual Review of Fluid Mechanics, 2003, 35, 63-88.   | 10.8 | 154       |
| 106 | The Effect of Static Electrification on Gas-Solid Flows in Vertical Risers. Industrial & Engineering Chemistry Research, 2002, 41, 6224-6234.                               | 1.8  | 56        |
| 107 | Analysis of drag and virtual mass forces in bubbly suspensions using an implicit formulation of the lattice Boltzmann method. Journal of Fluid Mechanics, 2002, 452, 61-96. | 1.4  | 171       |
| 108 | Role of wall friction in fluidization and standpipe flow. Powder Technology, 2002, 124, 45-54.  | 2.1  | 42        |

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|-----|--|-----|-----------|
| 109 | Lift force in bubbly suspensions. <i>Chemical Engineering Science</i> , 2002, 57, 3521-3542.   | 1.9 | 75        |
| 110 | The role of contact stresses and wall friction on fluidization. <i>Chemical Engineering Science</i> , 2002, 57, 5123-5141.   | 1.9 | 66        |
| 111 | The role of meso-scale structures in rapid gas-solid flows. <i>Journal of Fluid Mechanics</i> , 2001, 445, 151-185.  | 1.4 | 629       |
| 112 | Electrical Capacitance Tomography Measurements on the Pneumatic Conveying of Solids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 4216-4226. | 1.8 | 58        |
| 113 | James Wei. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 4155-4156.   | 1.8 | 0         |
| 114 | Some outstanding questions in handling of cohesionless particles. <i>Powder Technology</i> , 2001, 115, 2-7.   | 2.1 | 46        |
| 115 | Modeling the hydrodynamics of multiphase flow reactors: Current status and challenges. <i>AIChE Journal</i> , 2000, 46, 1102-1105.                                 | 1.8 | 198       |
| 116 | Bubble flow simulations with the lattice Boltzmann method. <i>Chemical Engineering Science</i> , 1999, 54, 4817-4823.  | 1.9 | 58        |
| 117 | Title is missing!. <i>Catalysis Letters</i> , 1999, 62, 87-91.   | 1.4 | 16        |
| 118 | Roy Jackson. <i>Industrial &amp; Engineering Chemistry Research</i> , 1999, 38, 575-575.   | 1.8 | 1         |
| 119 | The effect of boundaries on the plane Couette flow of granular materials: a bifurcation analysis. <i>Journal of Fluid Mechanics</i> , 1999, 397, 203-229.          | 1.4 | 42        |
| 120 | Gas-particle flow in vertical pipes with high mass loading of particles. <i>Powder Technology</i> , 1998, 96, 6-23.  | 2.1 | 36        |
| 121 | Dynamics of gas-particle flow in circulating fluidized beds. <i>Powder Technology</i> , 1998, 100, 173-182.  | 2.1 | 40        |
| 122 | From Bubbles to Clusters in Fluidized Beds. <i>Physical Review Letters</i> , 1998, 81, 1849-1852.  | 2.9 | 76        |
| 123 | The growth, saturation, and scaling behaviour of one- and two-dimensional disturbances in fluidized beds. <i>Journal of Fluid Mechanics</i> , 1998, 362, 83-119.   | 1.4 | 13        |
| 124 | Fully developed travelling wave solutions and bubble formation in fluidized beds. <i>Journal of Fluid Mechanics</i> , 1997, 334, 157-188.                          | 1.4 | 60        |
| 125 | Instabilities of fully developed rapid flow of a granular material in a channel. <i>Journal of Fluid Mechanics</i> , 1997, 342, 179-197.                           | 1.4 | 31        |
| 126 | Developing Flow of Gas-Particle Mixtures in Vertical Ducts. <i>Industrial &amp; Engineering Chemistry Research</i> , 1997, 36, 3375-3390.                          | 1.8 | 8         |



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|-----|---|-----|-----------|
| 127 | Rebuttal to the Comments of Lyle F. Albright on "Kinetic Analysis of Isobutane/Butene Alkylations over Ultrastable H <sup>+</sup> Y Zeolite". Industrial & Engineering Chemistry Research, 1997, 36, 2517-2520.   | 1.8 | 2         |
| 128 | Metastability of Spinel-type Solid Solutions in the SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> System. Chemistry of Materials, 1997, 9, 3096-3100.  | 3.2 | 23        |
| 129 | New precursors to vanadium phosphorus oxide catalysts. Catalysis Today, 1997, 33, 49-56.  | 2.2 | 35        |
| 130 | Fundamental Studies of Butane Oxidation over Model-Supported Vanadium Oxide Catalysts: Molecular Structure-Reactivity Relationships. Journal of Catalysis, 1997, 170, 75-88.  | 3.1 | 132       |
| 131 | Stability of bounded rapid shear flows of a granular material. Journal of Fluid Mechanics, 1996, 308, 31-62.  | 1.4 | 55        |
| 132 | One- and two-dimensional travelling wave solutions in gas-fluidized beds. Journal of Fluid Mechanics, 1996, 306, 183-221.   | 1.4 | 71        |
| 133 | Kinetics of Zeolitic Solid Acid-Catalyzed Alkylation of Isobutane with 2-Butene. ACS Symposium Series, 1996, , 105-115.   | 0.5 | 6         |
| 134 | Kinetic Analysis of Isobutane/Butene Alkylation over Ultrastable H <sup>+</sup> Y Zeolite. Industrial & Engineering Chemistry Research, 1996, 35, 3861-3873.  | 1.8 | 86        |
| 135 | The oxidation of C <sub>4</sub> molecules on vanadyl pyrophosphate catalysts. Studies in Surface Science and Catalysis, 1996, 101, 991-1000.  | 1.5 | 9         |
| 136 | The effect of the phase composition of model VPO catalysts for partial oxidation of n-butane. Catalysis Today, 1996, 28, 275-295.   | 2.2 | 169       |
| 137 | A two-phase release model for quantifying risk reduction for modified HF alkylation catalysts. Journal of Hazardous Materials, 1995, 44, 141-183.   | 6.5 | 6         |
| 138 | New Layered Vanadyl(IV) Phosphite as a Precursor to Vanadyl Pyrophosphate Catalysts for Partial Oxidation of n-Butane to Maleic Anhydride. Journal of Catalysis, 1995, 156, 298-300.  | 3.1 | 9         |
| 139 | Evolution of the active surface of the vanadyl pyrophosphate catalysts. Catalysis Letters, 1995, 32, 379-386.   | 1.4 | 84        |
| 140 | Synthesis and Characterization of Vanadyl Phosphite, VVOHPIIO <sub>3</sub> .xH <sub>2</sub> O. Chemistry of Materials, 1995, 7, 1485-1492.  | 3.2 | 26        |
| 141 | Vanadyl(IV) Phosphonates, VO <sub>n</sub> H <sub>2n+1</sub> PO <sub>3</sub> .xH <sub>2</sub> O (n = 0-4, x = 1 or 1.5), as Precursors of Vanadyl(IV) Pyrophosphate, (VO) <sub>2</sub> P <sub>2</sub> O <sub>7</sub> . Chemistry of Materials, 1995, 7, 1493-1498. | 3.2 | 29        |
| 142 | Instabilities and the formation of bubbles in fluidized beds. Journal of Fluid Mechanics, 1995, 303, 327-366.   | 1.4 | 124       |
| 143 | Multiphase Flow and Fluidization. By D. GIDASPOW. Academic Press, 1994. 467 pp. ISBN 0-12-282470-9.. Journal of Fluid Mechanics, 1995, 287, 405-407.  | 1.4 | 0         |
| 144 | Turbulent gas-particle flow in vertical risers. AIChE Journal, 1994, 40, 215-228.   | 1.8 | 127       |

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|-----|---|-----|-----------|
| 145 | Liquid Distribution in Trickle Bed Reactors. Energy & Fuels, 1994, 8, 531-535.  | 2.5 | 10        |
| 146 | Structural Investigation and Energetics of Mullite Formation from Sol-Gel Precursors. Chemistry of Materials, 1994, 6, 160-170.   | 3.2 | 103       |
| 147 | Intercalation of Aliphatic Amines into the Layered Structure of Vanadyl(IV) Hydrogen Phosphate Hemihydrate (VOHPO <sub>4</sub> .0.5H <sub>2</sub> O). Chemistry of Materials, 1994, 6, 353-356. | 3.2 | 28        |
| 148 | Developing flow of a gas-particle mixture in a vertical riser. AIChE Journal, 1993, 39, 541-552.  | 1.8 | 75        |
| 149 | Gas-Particle flow in a duct of arbitrary inclination with particle-particle interactions. AIChE Journal, 1993, 39, 1261-1271.   | 1.8 | 98        |
| 150 | Infinite-wavelength analysis for two-phase flow: A three-parameter computer-assisted study of global bifurcations. Physica D: Nonlinear Phenomena, 1992, 55, 197-220.                           | 1.3 | 2         |
| 151 | Time-dependent vertical gas-liquid flow in packed beds. Chemical Engineering Science, 1992, 47, 337-346.  | 1.9 | 11        |
| 152 | Stability of periodic travelling waves in trickle beds. Chemical Engineering Science, 1992, 47, 3257-3264.  | 1.9 | 3         |
| 153 | Mullitization of Diphasic Aluminosilicate Gels. Journal of the American Ceramic Society, 1991, 74, 2388-2392.   | 1.9 | 123       |
| 154 | Gas-solid flow in vertical tubes. AIChE Journal, 1991, 37, 1009-1018.   | 1.8 | 123       |
| 155 | Effect of boundaries on trickle-bed hydrodynamics. AIChE Journal, 1991, 37, 1237-1241.  | 1.8 | 17        |
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