

Nicky Eshtiaghi

List of Publications by Year in descending order

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77
papers

2,812
citations

218677

26
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182427

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79
all docs

79
docs citations

79
times ranked

2437
citing authors

#	ARTICLE	IF	CITATIONS
1	Liquid Metal Marbles. <i>Advanced Functional Materials</i> , 2013, 23, 144-152.	14.9	249
2	A review of wet air oxidation and Thermal Hydrolysis technologies in sludge treatment. <i>Bioresource Technology</i> , 2014, 155, 289-299.	9.6	213
3	Electrochemically induced actuation of liquid metal marbles. <i>Nanoscale</i> , 2013, 5, 5949.	5.6	205
4	Rheological characterisation of municipal sludge: A review. <i>Water Research</i> , 2013, 47, 5493-5510.	11.3	203
5	The rheological behaviour of anaerobic digested sludge. <i>Water Research</i> , 2011, 45, 5675-5680.	11.3	121
6	Rheology of a primary and secondary sewage sludge mixture: Dependency on temperature and solid concentration. <i>Bioresource Technology</i> , 2013, 140, 227-233.	9.6	111
7	Evaluation of single and two stage anaerobic digestion of landfill leachate: Effect of pH and initial organic loading rate on volatile fatty acid (VFA) and biogas production. <i>Bioresource Technology</i> , 2018, 251, 364-373.	9.6	101
8	An overview of biological processes and their potential for CO ₂ capture. <i>Journal of Environmental Management</i> , 2016, 183, 41-58.	7.8	85
9	The impact of temperature on the rheological behaviour of anaerobic digested sludge. <i>Chemical Engineering Journal</i> , 2013, 215-216, 182-187.	12.7	76
10	Variation in physical and mechanical properties of fired-clay bricks incorporating ETP biosolids. <i>Journal of Cleaner Production</i> , 2016, 119, 76-85.	9.3	72
11	Rheological characterisation of primary and secondary sludge: Impact of solids concentration. <i>Chemical Engineering Journal</i> , 2014, 253, 526-537.	12.7	71
12	The viscoelastic behaviour of raw and anaerobic digested sludge: Strong similarities with soft-glassy materials. <i>Water Research</i> , 2013, 47, 173-180.	11.3	70
13	Clear model fluids to emulate the rheological properties of thickened digested sludge. <i>Water Research</i> , 2012, 46, 3014-3022.	11.3	65
14	A quantitative framework for the formation of liquid marbles and hollow granules from hydrophobic powders. <i>Powder Technology</i> , 2012, 223, 65-76.	4.2	65
15	Liquid marble formation: Spreading coefficients or kinetic energy?. <i>Powder Technology</i> , 2009, 196, 126-132.	4.2	64
16	Possible use of biosolids in fired-clay bricks. <i>Construction and Building Materials</i> , 2015, 91, 86-93.	7.2	59
17	Rheological characterisation of thermally-treated anaerobic digested sludge: Impact of temperature and thermal history. <i>Water Research</i> , 2014, 56, 156-161.	11.3	57
18	Evaluation of thermal hydrolysis efficiency of mechanically dewatered sewage sludge via rheological measurement. <i>Water Research</i> , 2017, 116, 34-43.	11.3	57

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19	Formation of hollow granules from liquid marbles: Small scale experiments. Powder Technology, 2010, 197, 184-195.	4.2	53
20	Impact of rheological properties of substrate on anaerobic digestion and digestate dewaterability: New insights through rheological and physico-chemical interaction. Water Research, 2019, 150, 56-67.	11.3	43
21	A Proposal for Recycling the World's Unused Stockpiles of Treated Wastewater Sludge (Biosolids) in Fired-Clay Bricks. Buildings, 2019, 9, 14.	3.1	38
22	Impact of temperature and duration of thermal treatment on different concentrations of anaerobic digested sludge: Kinetic similarity of organic matter solubilisation and sludge rheology. Chemical Engineering Journal, 2015, 273, 534-542.	12.7	37
23	The laminar/turbulent transition in a sludge pipeline. Water Science and Technology, 2012, 65, 697-702.	2.5	30
24	Optimum solids concentration for solids suspension and solid-liquid mass transfer in agitated vessels. Chemical Engineering Research and Design, 2015, 100, 148-156.	5.6	27
25	Predicting the apparent viscosity and yield stress of mixtures of primary, secondary and anaerobically digested sewage sludge: Simulating anaerobic digesters. Water Research, 2016, 100, 568-579.	11.3	27
26	Impact of thermal treatment on the rheological properties and composition of waste activated sludge: COD solubilisation as a footprint of rheological changes. Chemical Engineering Journal, 2016, 295, 39-48.	12.7	27
27	Rheological characterisation of biologically treated and non-treated putrescible food waste. Waste Management, 2018, 71, 494-501.	7.4	27
28	Revealing the mechanisms for potassium ferrate affecting methane production from anaerobic digestion of waste activated sludge. Bioresource Technology, 2020, 317, 124022.	9.6	27
29	The viscoelastic characterisation of thermally-treated waste activated sludge. Chemical Engineering Journal, 2016, 304, 362-368.	12.7	25
30	Improvement of anaerobic digestion of sewage mixed sludge using free nitrous acid and Fenton pre-treatment. Biotechnology for Biofuels, 2018, 11, 233.	6.2	24
31	Producing hollow granules from hydrophobic powders in high-shear mixer granulators. Advanced Powder Technology, 2009, 20, 558-566.	4.1	22
32	Flow regimes in the mixing of municipal sludge simulant using submerged, recirculating jets. Chemical Engineering Journal, 2015, 276, 137-144.	12.7	22
33	Continuous Production of Janus and Composite Liquid Marbles with Tunable Coverage. ACS Applied Materials & Interfaces, 2016, 8, 17751-17756.	8.0	22
34	The apparent viscosity and yield stress of mixtures of primary and secondary sludge: Impact of volume fraction of secondary sludge and total solids concentration. Chemical Engineering Journal, 2016, 288, 577-587.	12.7	22
35	Rheological measurements as a tool for monitoring the performance of high pressure and high temperature treatment of sewage sludge. Water Research, 2017, 114, 254-263.	11.3	21
36	Comparison between classical Kelvin-Voigt and fractional derivative Kelvin-Voigt models in prediction of linear viscoelastic behaviour of waste activated sludge. Science of the Total Environment, 2018, 613-614, 1031-1036.	8.0	20

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37	An analysis of the thermodynamic conditions for solid powder particles spreading over liquid surface. <i>Powder Technology</i> , 2010, 201, 306-310.	4.2	18
38	Anaerobic co-digestion of sewage sludge with cellulose, protein, and lipids: Role of rheology and digestibility. <i>Science of the Total Environment</i> , 2020, 731, 139214.	8.0	17
39	Predicting the apparent viscosity and yield stress of digested and secondary sludge mixtures. <i>Water Research</i> , 2016, 95, 159-164.	11.3	16
40	Rheological characterization of thermal hydrolysed waste activated sludge. <i>Water Research</i> , 2019, 156, 445-455.	11.3	16
41	Comparison of mesophilic and thermophilic methane production potential of acids rich and high-strength landfill leachate at different initial organic loadings and food to inoculum ratios. <i>Science of the Total Environment</i> , 2020, 715, 136658.	8.0	15
42	Solid-state anaerobic co-digestion of food waste and cardboard in a pilot-scale auto-fed continuous stirred tank reactor system. <i>Journal of Cleaner Production</i> , 2021, 289, 125775.	9.3	15
43	Impact of gas injection on the apparent viscosity and viscoelastic property of waste activated sewage sludge. <i>Water Research</i> , 2017, 114, 296-307.	11.3	14
44	Rheological measurements as indicators for hydrolysis rate, organic matter removal, and dewaterability of digestate in anaerobic digesters. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103970.	6.7	14
45	Enhancing Impeller Power Efficiency and Solid-Liquid Mass Transfer in an Agitated Vessel with Dual Impellers through Process Intensification. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 7021-7036.	3.7	13
46	Role of regression analysis and variation of rheological data in calculation of pressure drop for sludge pipelines. <i>Water Research</i> , 2018, 137, 1-8.	11.3	13
47	Synthesis of functional hydrochar from olive waste for simultaneous removal of azo and non-azo dyes from water. <i>Chemical Engineering Journal Advances</i> , 2022, 9, 100233.	5.2	13
48	A study of gas emissions during the firing process from bricks incorporating biosolids. <i>Waste Management</i> , 2018, 74, 413-426.	7.4	12
49	Phase retrieval tomography in the presence of noise. <i>Journal of Applied Physics</i> , 2010, 107, 034904.	2.5	11
50	Measuring active volume using electrical resistance tomography in a gas-sparged model anaerobic digester. <i>Chemical Engineering Research and Design</i> , 2018, 130, 42-51.	5.6	11
51	Optimization of feed and extractant concentration for the liquid-liquid extraction of volatile fatty acids from synthetic solution and landfill leachate. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 90, 190-202.	5.8	11
52	Anaerobic co-digestion of food waste and cardboard in different mixing ratios: Impact of ultrasound pre-treatment on soluble organic matter and biogas generation potential at varying food to inoculum ratios. <i>Biochemical Engineering Journal</i> , 2021, 166, 107853.	3.6	11
53	Accelerating the spread of the active mixing region in a sludge simulant using submerged jets. <i>Chemical Engineering Research and Design</i> , 2016, 114, 331-340.	5.6	10
54	Cavern Formation in Non-Newtonian Media in a Vessel Agitated by Submerged Recirculating Liquid Jets. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 10771-10781.	3.7	10

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55	Influence of gas injection on viscous and viscoelastic properties of Xanthan gum. <i>Water Research</i> , 2018, 134, 86-91.	11.3	10
56	Impact of gas injection on physicochemical properties of waste activated sludge: A linear relationship between the change of viscoelastic properties and the change of other physicochemical properties. <i>Water Research</i> , 2018, 144, 246-253.	11.3	10
57	Constitutive modelling and pipeline flow of thixotropic viscoplastic wastewater sludge. <i>Water Research</i> , 2020, 184, 116126.	11.3	9
58	Mixing characteristics of sludge simulant in a model anaerobic digester. <i>Bioprocess and Biosystems Engineering</i> , 2016, 39, 473-483.	3.4	8
59	Intensification of sonochemical reactions in solid-liquid systems under fully suspended condition. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 123, 34-44.	3.6	8
60	Flow patterns in the mixing of sludge simulant with jet recirculation system. <i>Chemical Engineering Research and Design</i> , 2017, 112, 209-221.	5.6	8
61	Synergy of combined free nitrous acid and Fenton technology in enhancing anaerobic digestion of actual sewage waste activated sludge. <i>Scientific Reports</i> , 2020, 10, 5027.	3.3	7
62	Proxy model materials to simulate the elastic properties of digested municipal sludge. <i>Water Research</i> , 2013, 47, 5557-5563.	11.3	6
63	The influence of injection velocity and relaxation time on the spreading of tracers in viscoelastic liquids agitated by submerged, recirculating jets with low reynolds numbers. <i>AIChE Journal</i> , 2017, 63, 3132-3140.	3.6	6
64	Evolution of flow regimes in non-Newtonian liquids under gas sparging. <i>Chemical Engineering Science</i> , 2018, 176, 153-156.	3.8	5
65	Bubble rise velocity and bubble size in thickened waste activated sludge: Utilising electrical resistance tomography (ERT). <i>Chemical Engineering Research and Design</i> , 2019, 148, 119-128.	5.6	5
66	Characterising sedimentation velocity of primary waste water solids and effluents. <i>Water Research</i> , 2022, 219, 118555.	11.3	5
67	Good practice groundwork: Managing initial meetings with higher degree research students. <i>Education for Chemical Engineers</i> , 2012, 7, e196-e202.	4.8	4
68	Control of the mixing time in vessels agitated by submerged recirculating jets. <i>Royal Society Open Science</i> , 2018, 5, 171037.	2.4	3
69	Enhanced electrochemical heavy metal ion sensor using liquid metal marbles - towards on-chip application. , 2012, , .		2
70	Net positive energy wastewater treatment plant via thermal pre-treatment of sludge: A theoretical case study. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2017, 52, 429-432.	1.7	2
71	Solid-liquid mass transfer in sonicated agitated vessels with high concentration slurries. <i>Heat and Mass Transfer</i> , 2019, 55, 1327-1335.	2.1	2
72	Biotreatment of formaldehyde-contaminated air in a trickle bed bioreactor. , 0, 93, 83-92.		2

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73	Formation mechanisms and mechanical properties of anaerobic lagoon scum. Science of the Total Environment, 2022, , 156907.	8.0	2
74	CFD Modeling of Active Volume Creation in a Non-Newtonian Fluid Agitated by Submerged Recirculating Jets. Chemical Engineering and Technology, 2018, 41, 1441-1447.	1.5	1
75	Physico-chemical and rheological properties datasets related to batch mesophilic anaerobic digestion of waste activated sludge, primary sludge, and mixture of sludge with organic and inorganic matter. Data in Brief, 2023, 51, 106418.	1.0	1
76	Impact of methodological artifact on digested sludge flow curve measurement. MethodsX, 2020, 7, 100972.	1.6	0
77	Submerged Recirculating Liquid Jet Mixing: A Comparison of Nozzle Orientation and Tank Aspect Ratio. Journal of Chemical Engineering of Japan, 2018, 51, 166-169.	0.6	0