

Madhuchhanda Bhattacharya

List of Publications by Year in descending order

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28
papers

888
citations

586496

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591227

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docs citations

28
times ranked

1019
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical role of Prandtl number on multiple steady states during natural convection in square enclosures: Analysis of heat transfer rates, flow and thermal maps. International Journal of Heat and Mass Transfer, 2021, 170, 120900.	2.5	3
2	Analysis of multiple steady states for natural convection of Newtonian fluids in a square enclosure. Physics of Fluids, 2021, 33, .	1.6	10
3	A Galerkin finite element based analysis on the microwave heating characteristics of lossy samples in the presence of low and high lossy containers. International Journal of Heat and Mass Transfer, 2020, 153, 119544.	2.5	8
4	A theoretical analysis on the effect of containers on the microwave heating of materials. International Communications in Heat and Mass Transfer, 2017, 82, 145-153.	2.9	30
5	A comprehensive analysis on the effect of shape on the microwave heating dynamics of food materials. Innovative Food Science and Emerging Technologies, 2017, 39, 247-266.	2.7	41
6	Susceptor-Assisted Enhanced Microwave Processing of Ceramics - A Review. Critical Reviews in Solid State and Materials Sciences, 2017, 42, 433-469.	6.8	54
7	A generalized approach on microwave processing for the lateral and radial irradiations of various Groups of food materials. Innovative Food Science and Emerging Technologies, 2016, 33, 333-347.	2.7	20
8	A review on the susceptor assisted microwave processing of materials. Energy, 2016, 97, 306-338.	4.5	282
9	Generalized characterization of microwave power absorption for processing of circular shaped materials. Chemical Engineering Science, 2014, 118, 257-279.	1.9	19
10	Role of microwave heating strategies in enhancing the progress of a first order endothermic reaction. AIChE Journal, 2013, 59, 656-670.	1.8	10
11	A theoretical study on the use of microwaves in reducing energy consumption for an endothermic reaction: Role of metal coated bounding surface. Energy, 2013, 55, 278-294.	4.5	19
12	Mixed convection and role of multiple solutions in lid-driven trapezoidal enclosures. International Journal of Heat and Mass Transfer, 2013, 63, 366-388.	2.5	58
13	On multiple steady states for natural convection (low Prandtl number fluid) within porous square enclosures: Effect of nonuniformity of wall temperatures. International Journal of Heat and Mass Transfer, 2013, 59, 230-246.	2.5	13
14	Reduced order models for describing dispersion and reaction in monoliths. Chemical Engineering Science, 2012, 83, 77-92.	1.9	26
15	Linear Stability Analysis for the Onset of Convection During Microwave Heating of Samples Confined Within Horizontal Plates. , 2011, , .		0
16	A comprehensive theoretical analysis for the effect of microwave heating on the progress of a first order endothermic reaction. Chemical Engineering Science, 2011, 66, 5832-5851.	1.9	25
17	Linear stability analysis for the onset of convection during microwave heating of oil confined within horizontal plates. Journal of Applied Physics, 2009, 105, .	1.1	3
18	Generalized scaling on forecasting heating patterns for microwave processing. AIChE Journal, 2008, 54, 56-73.	1.8	12

#	ARTICLE	IF	CITATIONS
19	Analysis on the onset of microwave induced convection within a horizontal water layer. Journal Physics D: Applied Physics, 2008, 41, 155505.	1.3	2
20	Detailed Material-Invariant Analysis on Spatial Resonances of Power Absorption for Microwave-Assisted Material Processing with Distributed Sources. Industrial & Engineering Chemistry Research, 2007, 46, 750-760.	1.8	10
21	Biocalorimetric and respirometric studies on metabolic activity of aerobically grown batch culture of Pseudomonas aeruginosa. Biotechnology and Bioprocess Engineering, 2007, 12, 340-347.	1.4	10
22	On the analysis of microwave power and heating characteristics for food processing: Asymptotes and resonances. Food Research International, 2006, 39, 1046-1057.	2.9	35
23	A novel closed-form analysis on asymptotes and resonances of microwave power. Chemical Engineering Science, 2006, 61, 6273-6301.	1.9	29
24	New closed form analysis of resonances in microwave power for material processing. AIChE Journal, 2006, 52, 3707-3721.	1.8	21
25	Mass-transfer coefficients in washcoated monoliths. AIChE Journal, 2004, 50, 2939-2955.	1.8	57
26	Shape normalization for catalytic monoliths. Chemical Engineering Science, 2004, 59, 3737-3766.	1.9	24
27	Low-dimensional models for homogeneous stirred tank reactors. Chemical Engineering Science, 2004, 59, 5587-5596.	1.9	11
28	A fixed-grid finite element based enthalpy formulation for generalized phase change problems: role of superficial mushy region. International Journal of Heat and Mass Transfer, 2002, 45, 4881-4898.	2.5	56