Curriculum Vitae

Name : K.S.M.S. Raghavarao

Date of birth : 02.08.1960

Present Address : Chief Scientist, Department of Food Engineering
CSIR-Central Food Technological Research Institute,
Mysore-570 020, INDIA.

Education

B.Tech (Chemical Engineering)	1981	Andhra University, Vizag.
Ph.D (Chemical Engineering)	1987	ICT,Mumbai (Formerly UDCT).
Post-Doctoral Research	1988	NIST, Boulder, USA.
Sabbatical Research (1 & ½ Yrs)	1997/98	Univ. of Colorado, USA.

Research Experience

1987 Mar - 1988 Dec	Research Associate, ICT, Mumbai.
1988 Jan - 1988 Oct	Guest Scientist, NIST, Boulder, USA.
1988 Dec - 1989 Dec	Research Associate, UICT, Mumbai.
1990 Apr - 1990 Sep	Associate Lecturer, NITW, Warangal
1990 Oct - Till date	Scientist C, E1, E2, F & G, CFTRI, Mysore.
1997 Apr - 1998 Nov	DBT Fellow, Univ. of Colorado, USA.
2002 Dec - 2012 Aug	Head, Dept. of Food Engg., CFTRI, Mysore

Career interest/ Research areas

The research work is basically the application of principles of Chemical Engineering for process and produce development in area of Food Process Engineering as well as Food and Biotechnology.

i. Novel Membrane Processes for the production of Liquid Concentrates

To overcome the drawbacks of RO, osmotic membrane distillation and direct osmosis are being developed for the concentration (above 60 °Brix) of fruit juices and natural colors.

ii. Downstream Processing of Proteins/Enzymes

An integrated approach to downstream processing for various proteins/enzymes is being developed successfully addressing the constraints on large scale.

iii. Design and Development of Equipment

a. Machinery for traditional Indian foods: Design and development of machinery for continuous production of Indian traditional foods.

b. Bioreactors: Bioreactors are being designed for solid-state fermentation and hairy root cultures, achieving high productivity.

iv. Drying and Dehydration

a. Spray drying, Fluidized bed drying: Field assisted drying of heat sensitive food and biomaterial (IR, Microwave, Acoustics and RF).

b. Osmotic Dehydration

v. Process & Product Development:

Various value added products from coconut such as virgin coconut oil, whole coconut milk powder, Phycocyanins Betalains, Anthocyanin, Bromelain, tender coconut water concentrate, etc.

Awards

- 2015 VASVIK Industrial Research Award in the area of Biological Sciences and Technology (VASVIK)
- 2015 Distinguished Alumnus Award (Research Category), ICT, Mumbai (UAA-ICT)
- 2015 Fellow of AP Akademy of Sciences, India (FAPAS)
- 2014 Fellow of the Indian Academy of Science, Bangalore (FASc)
- 2013 Fellow of the National Academy of Engineers, India (FNAE)
- 2013 Fellow of the National Academy of Agricultural Sciences, India (FNAAS)
- 2012 Fellow of the National Academy of Engineers, India (FNAE)
- 2012 Fellow of Association of Food Scientists and Technologiste, India (FAFSTi)
- 2010 Institution of Engineers (India) Platinum Jubilee Award in Chemical Engineering.
- 2010 Fellow of the Institution of Engineers, India (FIE).
- 2008 NASI-Reliance Industries Diamond Jubilee award
- 2010, 2007, 2005, 2004 CFTRI Foundation award for best technology transferred to industry.
- 2006 National award, Ministry of Agriculture for research on Value addition to Coconut.
- 1997 DBT, Govt of India, Longterm overseas fellowship
- 1987 Indo-US joint research fellowship

Membership in Committees

- Research Advisory Committee (RAC) Member of M/s. Richcore Biotech, Bangalore.
- Program Advisory Committee (PAC) Member of DST, DRDO, MFPI, CDB.
- Quinquennial Review Team (QRT) Member of CIFT, Cochin an ICAR Institution
- Member of editorial board for the journal of Biotechnology Advances
- Associate editor of ACES (Advances in Chemical Engineering Science), published by SCIRP (Scientific Research Publishing).
- Associate editor of the Journal Food Biology published by scholar journals
- Member of editorial board for the journal, CyTA- Journal of Food, published by Taylor & Francis.
- Member of Board of Studies in Chem. Engineering (RV Engg. College, Bangalore) & in Biotechnology, University of Mysore
- Member of Advisory committee of DBT-HRD programme at Dept. of Biotechnology, University of Mysore.

Guidance for Research Student Programs:

Ph.D programs completed	-	18
Ph.D programs in progress	-	04
Masters programs completed	-	26
Masters programs in progress	-	01
Postdoctoral programs completed	-	05

Ph.D / Post Doctoral Programs

1. Dr. N. D. Srinivas, CSIR-SRF. (Ph.D - June 2001).
   Investigation topic: Aqueous two phase extraction for the downstream processing of proteins/enzymes used in food processing.

2. Dr. M.N. Ramesh, Scientist, Dept of Food Engineering, CFTRI (Ph.D - August, 2001)
   Investigation topic: Heat and Mass transfer studies in drying of cooked rice and vegetables

3. Dr. R. Subramanian, Scientist, Dept of Food Engineering, CFTRI. (Ph.D - August, 2002)
   Investigation topic: Membrane processing of vegetable oil.

4. Dr. N. K. Rastogi, Scientist, (Dept of Food Engineering, CFTRI (Ph.D - February, 2004)
   Investigation topic: Kinetics of Osmotic dehydration of foods.

5. Dr. M.P. Nandakumar (FT & B E Dept., CFTRI) (Post Doctoral Research, 1992-95)
   Investigation topic: Solid-state fermentation.

6. Dr. Tanuja Srivastava, CSIR (INDIA) Research Associate (Food Engineering Dept., CFTRI) (1994-96)
   Investigation topic: Aqueous two phase extraction.

7. Dr. D.C. Saxena, Baking Technology Dept., CFTRI, Mysore (1994-96)
   Investigation topic: Heat transfer analysis of baking in tanduri oven.

8. Dr. Manoj Pillai (PCBT Dept. CFTRI) (1994-2002).
   Investigation topic: Downstream processing of phycocyanin.

9. Dr. Rajendra Kumar Barhate, CSIR-SRF (Ph.D - June, 2005).
   Investigation topic: Liquid-Liquid extraction for the downstream processing of biomolecules.

10. Dr. Naveen Nagaraj, CSIR-SRF, (Ph.D - February, 2005).
    Investigation topic: An integrated biotechnological approach for the purification and concentration of liquid foods, proteins and food colors

11. Dr. Chethana S, CSIR-JRF (Ph.D - April, 2007)
    Investigation topic: Field assisted separation and downstream processing of natural colors and biomolecules

12. Dr. K. Venkateshmurthy Scientist, Dept of Food Engineering, CFTRI. (Ph.D - April, 2007)
    Investigation topic: Heat and Mass transfer in the design of equipment for traditional foods.

13. Dr. Ganapathi Patil, CSIR-SRF (Ph.D - February, 2008)
    Investigation topic: Integration of osmotic membrane processes for purification and concentration of proteins, natural colors and liquid foods

14. Dr. Umesh H Hebbar, Scientist, Dept of Food Engineering, CFTRI. (Ph.D - November, 2008)
    Investigation topic: Reverse Micellar Extraction for the down stream processing of proteins and enzymes.

15. Dr. A.V. Narayan, CSIR-SRF (Ph.D - May, 2009)
    Investigation topic: Two and three phase partitioning for purification and Concentration of selected bio-molecules and food colorants

16. Dr. Ravindra Babu B, CSIR-SRF (Ph.D - May, 2009)
    Investigation topic: Aqueous two phase extraction for the purification and concentration of biomolecules from pineapple (Ananus comosus L. Merryl)

17. Dr. Harish Prashanth, CSIR-RA
    Investigation topic: Biopolymer based nanocomposites: preparation, characterization and food application.

18. Raghavendra S.N., CSIR-SRF
    Investigation topic: Biotechnological approaches for the production of diversified products from coconut.

19. Hemavathi AB, CSIR-SRF
    Investigation topic: Biotechnological approaches for the downstream processing of selected enzymes.

20. Lakshmi M.C, CSIR-SRF (Feb, 2013)
    Investigation topic: Biotechnological approaches for the downstream processing of selected biomolecules from *Glycine max*

21. Madhusudhan M.C., CSIR-SRF (Jan 2014)
    Investigation topic: Extraction and purification of selected enzymes using bioprocess integration.

22. Jampani Chandrasekhar., CSIR JRF
    Investigation topic: Adsorption for the downstream processing of Biomolecules.

23. Aduja D Naik., UGC-JRF
    Investigation topic: Extraction and purification of selected biomolecules from byproducts of coconut.

Current Ph.D and Post-Doctoral Programs

24. Hrishikesh A., CSIR-SRF
    Investigation topic: Ionic liquid based extraction for separation and purification of Phycocyanin.

25. Rochak Mittal., CSIR-NET
    Investigation topic: Downstream processing for separation and purification of natural colours.

26. Richa Sharma., CSIR-GATE
    Sensing of Chloramphenicol in food using nano materials and optical reporter molecules

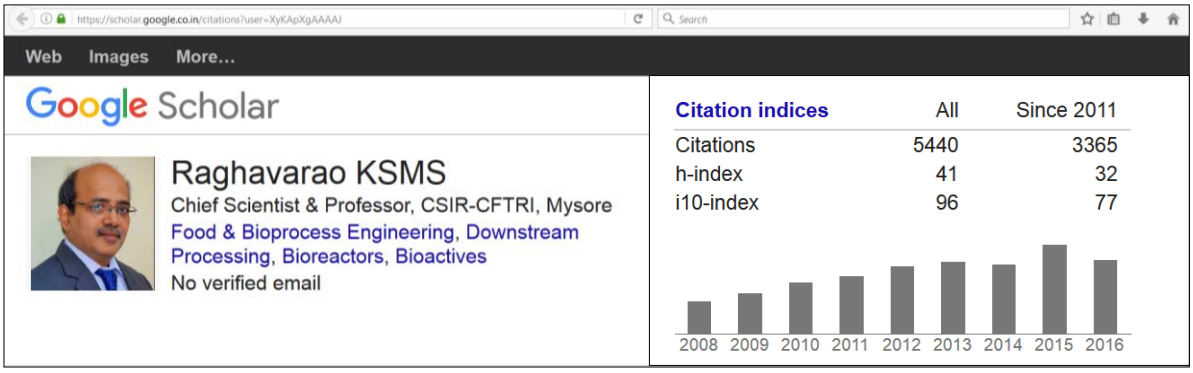
27. Sheshanarayan, Technical officer, FE, CFTRI
    Investigation topic: Electromagnetic field assisted dehydration of foods.

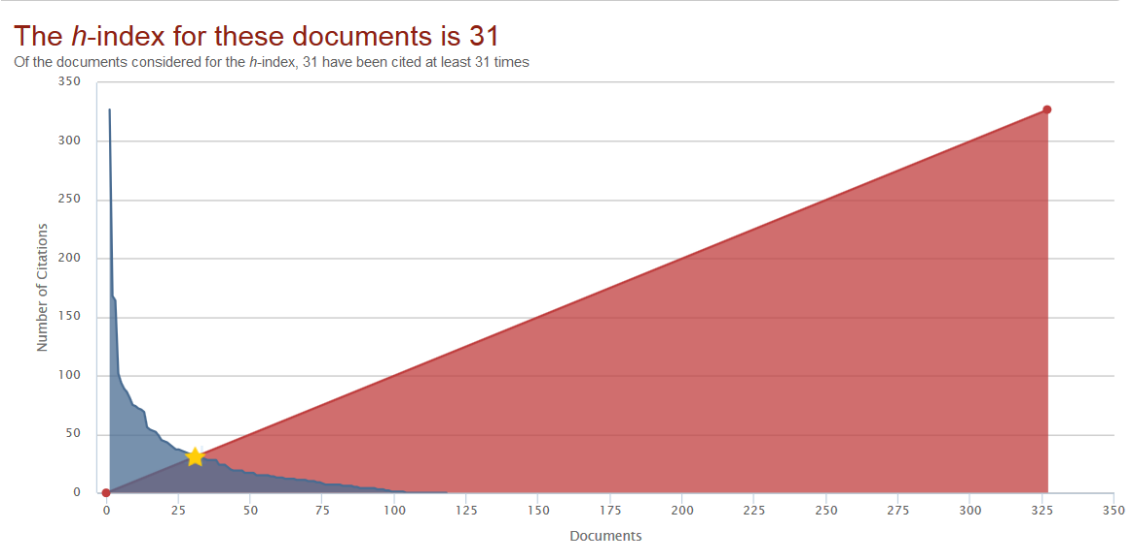
28. Archana Lamdande: RJNF-SRF
    Investigation topic: Cold processing and value added products from *Coco nucifera*.

NO. OF PATENTS GRANTED/APPLIED FOR: 76

Patents	**Granted**
US Patents (Granted)	6
PCT Patents (Granted)	19
Indian Patents (Granted)	24
Indian Patents (Filed)	27

Complete list of publications in standard refereed journals:





https://www.scopus.com/hirsch/document.uri?stateKey=CTOF_747877360&accessor=CTO&origin=cto&txGid=BCFED8CB491667E4255F485DE4512CCD.wsnAw8kcdt7IPYLO0V48gA%3a54

PUBLICATIONS

The total number of citations of over **150** publications are **5440** with h index of **41**

- **Number of research publications in standard refereed journals: 137**
- **Number of review articles in standard refereed journals: 20**
- **Number of national publications: 20**
- **Number of Books authored/edited: 20**
- **Number of editorials: 2**
- **Number of posters in conferences/ Symposia/ Seminars etc: 136**

The total number of citations of over **150** publications are **6587** with h index of **39**

S.No.	Author's Name	Title of the paper	Details	IF	Citn
1.	Rochak Mittal, Hrishikesh A Tavanandi, Vaibhav A.Mantri and KSMS Raghavarao	Ultrasound assisted methods for enhanced extraction of Phycobiliproteins from marine macro-algae, Gelidium pusillum (Rhodophyta)	Ultrasonics – Sonochemistry (Accepted)	4.6	
2.	Rani, Ram Saran, Aduja Naik and KSMS Raghavarao	Removal of toxic Congo red dye from water employing low-cost coconut residual fiber	Water Science and Technology (Accepted)	1.064	
3.	Archana Lamdande, Maya Prakash, KSMS Raghavarao	Storage Study and Quality Evaluation of Fresh Coconut Grating	Journal of Food Processing and Preservation (Accepted)	0.9	
4.	A. Chandralekha, Anupama Rani, Hrishikesh A Tavanandi, N. Amrutha, Umesh Hebbar & **KSMS Raghavarao**	Role of Carrier Material in Encapsulation of Yeast (Saccharomyces cerevisiae) by Spray Drying	Drying Technology **DOI:** 10.1080/07373937.2016.1230626	1.518	
5.	A. Chandralekha, A. Hrishikesh Tavanandi, N. Amrutha, H. Umesh Hebbar, **KSMS Raghavarao** & Ramachandra Gadre	Encapsulation of Yeast (*Saccharomyces cerevisiae*) by Spray Drying for Extension of Shelf Life	Drying Technology **DOI:** 10.1080/07373937.2015.1112808 (2016)	1.518	**2**
6.	GC Jeevitha, Umesh Hebbar, KSMS. Raghavarao	Modeling of peroxidase inactivation and temperature profile during infrared blanching of red bell pepper	Journal of Food Processing and Preservation (2016)	1.16	
7.	Chandrasekhar J and **Raghavarao KSMS**	Differential partitioning for purification of anthocyanins from Brassica oleracea L.	Separation and Purification Technology (2015)	3.091	
8.	K.Venkatesh Murthy, ML. Sudha, R. Ravi, **KSMS. Raghavarao**	Optimization of pneumatic sheet extrusion of whole wheat flour dough (for *poory*) using response surface methodology	Journal of Food Science and Technology, (In press) 2014	2.203	
9.	Lakshmi MC, Amrutha N, Hrishikesh A & **Raghavarao KSMS**	Stabilization of Lipoxygenase-1 from Glycine max by microencapsulation	Drying Technology, (In press) 2014	1.518	**1**
10.	Madhusudhan MC and **Raghavarao KSMS**	Integration of aqueous two-phase extraction with membrane processes for the recovery of enzymes from baker's yeast	Applied biochemistry and Microbiology (Accepted for Publication, 2015)	0.735	
11.	Madhusudhan MC and **Raghavarao KSMS**	Electro-extraction studies of proteins in polymer/salt aqueous two-phase systems	Food and Bioproducts processing, (Accepted for Publication, 2015)	2.474	
12.	S. Chethana, Chetan A. Nayak, M. C. Madhusudhan and **KSMS Raghavarao**	Single step aqueous two-phase extraction for downstream processing of C-phycocyanin from Spirulina platensis	Journal of Food Science and Technology (2014) (DOI 10.1007/s13197-014-1287-9)	2.203	**7**
13.	Chandrasekhar J and **Raghavarao KSMS.**	Separation and concentration of jamun anthocyanins: An integrated process.	Chemical Engineering Communications, 2014 (DOI:10.1080/00986445.2014.935351).	1.104	

14.	J Chandrasekhar, G Sonika, MC Madhusudhan and **KSMS Raghavarao**.	Differential partitioning of betacyanins and betaxanthins employing aqueous two phase extraction.	Journal of Food Engineering, 144 (2015) 156–163 (DOI - 10.1016/j.jfoodeng. 2014.07.018).	2.771	**9**
15.	M. C. Madhusudhan, A. Hrishikesh and **KSMS. Raghavarao**	Partitioning of Invertase in Nanoparticle Incorporated Aqueous Two-phase Systems	Current Biochemical Engineering, 2014, 1, 000-000		**1**
16.	J Chandrasekhar, Aduja Naik and **KSMS Raghavarao**	Purification of anthocyanins from jamun (Syzygium cumini L.) employing adsorption	Separation and Purification Technology, 125 (2014) 170–178	3.091	**22**
17.	Amrutha N, SG Prapulla, Umesh Hebbar and **KSMS Raghavarao**	Effect of Additives on Quality of Spray-Dried Fructooligosaccharide Powder	Drying Technology (2014) 32 (9), 1112-1118	1.518	**6**
18.	BS Priyanka, KS Abhijith, NK Rastogi, **K Raghavarao**, MS Thakur	Integrated Approach for the Extraction and Purification of IgY from Chicken Egg Yolk	Separation Science and Technology 49 (4), 562-568, (2014)		1
19.	Chethana S, Chetan A Nayak, Madhusudhan MC and **KSMS Raghavarao**	Single step aqueous two-phase extraction for downstream processing of C-phycocyanin from Spirulina platensis	Journal of Food Science and Technology, 2014, 1-7	2.203	**7**
20.	Aduja Naik, Maya Prakash, Ravi R and KSMS Raghavarao	Storage Study and Quality Evaluation of Coconut Protein Powder	Journal of Food Science 2013, 78(11), S1784–S1792	1.696	
21.	Aduja Naik, GV Venu, Maya Prakash and KSMS Raghavarao	Dehydration of coconut skim milk and evaluation of functional properties	CyTA - Journal of Food 2014, 12 (3), 227-234	0.824	**2**
22.	GC Jeevitha, H. Umesh Hebbar & **KSMS Raghavarao**	Electromagnetic radiation based dry blanching of Red Bell Pepper: A comparative study	Journal of Food Science, 36, 2013, 663-674	1.696	7
23.	BS. Priyanka, NK. Rastogi, **KSMS. Raghavarao**, MS. Thakur	Optimization of extraction of luciferase from fire flies (*Photinus pyralis*) using aqueous two phase extraction	Separation and Purification Technology, 118 (2013) 40–48.	3.091	**7**
24.	J. Chandrasekhar, M.C. Madhusudhan, **K.S.M.S. Raghavarao**	Extraction of anthocyanins from red cabbage and purification using adsorption	Food and Bioproducts Processing, 90, 4, 2012, 615-623	2.474	**38**
25.	Aduja Naik SN Raghavendra & **KSMS. Raghavarao**	Production of coconut protein powder from coconut wet processing waste and its characterization	Applied Biochemistry and Biotechnology 2013, 167(5), 1290-1302	1.735	14
26.	A. Hrishikesh Tavanandi, S. Deepak, K. Venkatesh Murthy, **KSMS. Raghavarao**.	Development of a continuous lemon cutting machine	Journal of Food Science and Technology 2013, 1-8	2.203	1
27.	Shipra Tiwari, K. V. Harish Prashanth, Revathi Bhaskaran, Usha Devi, Maya Prakash, NK Rastogi & K. S. M. S. **Raghavarao**	Effect of Chitosan and its Blended Films on the Shelf Life and Quality of Green peppers and Grapes during Modified Atmosphere Storage.	Trends in carbohydrate research, 2013, 5 (1), 33-44	-	
28.	Umesh Hebbar, B. Sumana, Hemavathi A.B and **KSMS Raghavarao**	Separation and purification of Bromelain by Reverse micellar extraction coupled with ultrafiltration and comparison with other methods	Food and Bioprocess Technology (2012), 5, 1010-1018	2.691	26

29.	BS. Priyanka, NK. Rastogi, **KSMS. Raghavarao**, MS. Thakur	Downstream processing of luciferase from fireflies (*Photinus pyralis*) using aqueous two-phase extraction	Process Biochemistry (2012) 47(9), 1958-1363	2.516	14
30.	M. C. Lakshmi & M. C. Madhusudhan & **KSMS Raghavarao**	Extraction and purification of lipoxygenase from soybean using aqueous two-phase system	Food Bioprocess Technology,(2012), 5(1), 193-199	2.691	12
31.	MC. Lakshmi & **KSMS. Raghavarao**	Extraction and Concentration of Isoflavones from Soybean (Glycine max)	Separation science and Technology 2013, 48(1), 166-174	1.171	
32.	Madhusudhan. MC & **KSMS Raghavarao**	Aqueous two phase extraction of invertase from baker's yeast: Effect of process parameters on partitioning	Process Biochemistry, 2011, 46(10), 2014-2020	2.516	21
33.	Umesh Hebbar, B. Sumana, Hemavathi A.B and **KSMS Raghavarao**	Reverse micellar extraction of bromelain from pineapple (Ananas comosus L. Merryl) waste: scale-up, reverse micelles characterization and mass transfer studies	Separation Science and Technology, 2011. 46(10), 1656-1664	1.171	11
34.	Sukumar Debnath, **KSMS Raghavarao**, BR Lokesh	Hydrodynamic, thermo-analytical and molecular structural investigations of enzyme interesterified oil and its thermo-oxidative stability by thermogravimetric analysis	Journal of Food Engineering, 2011, 105(4), 671-679	2.771	9
35.	N Chhanwal, D Indrani, **KSMS Raghavarao** and C Anandharamakrishnan	Computational fluid dynamics modeling of bread baking process	Food research international (2011) 44 (4), 978-983	2.818	20
36.	Hemavathi. AB & **Raghavarao**. **KSMS**	Membrane processing for purification and concentration of β-glycosidases from barley (Hordeum vulgare)	Biotechnology and bioprocess engineering, 16(2), 282-290	1.113	3
37.	AV. Narayan, MC. Madhusudhan and **KSMS**. **Raghavarao**	Demixing kinetics of phase systems employed for liquid–liquid extraction and correlation with system properties	Food and Bioproduct processing, (2010), 89(4), 251-256	2.474	7
38.	Lakshmi. M. C. and **Raghavarao KSMS**	Downstream processing of soy hull peroxidase employing reverse micellar extraction	Biotechnology and Bioprocess Engineering (2010) 15(6), 937-945	1.113	9
39.	A Anishaparvin, N Chhanwal, D Indrani, **KSMS Raghavarao**, C Anandharamakrishnan	An Investigation of Bread- Baking Process in a Pilot- Scale Electrical Heating Oven Using Computational Fluid Dynamics	Journal of food science, (2010), 75(9), E605-E611.	1.696	10
40.	K.Venkatesh Murthy and **KSMS**.**Raghavarao**	Analysis of modes of heat transfer in baking Indian rice pan cake (Dosa,) a breakfast food	Journal of food science and technology (2010) DOI 10.1007/s 13197-010-0204-0	2.203	1
41.	SN Raghavendra and **KSMS Raghavarao**	Aqueous extraction and enzymatic destabilization of coconut milk emulsions	Journal of American Oil Chemists Society 2011, 88(4), 481-487	1.541	18
42.	M.C. Madhusudhan, S. Chethana and **KSMS Raghavarao**	Electrokinetic Demixing of Polymer/Salt Systems Containing Biomolecules	Separation Science and Technology (2011) 46, 1-7	1.171	3
43.	AB. Hemavathi and **KSMS**. **Raghavarao**	Differential partitioning of β-galactosidase and β-glucosidase using aqueous two phase extraction	Process Biochemistry, (2011), 46, 649-655	2.516	16

44.	N Chhanwal, A Anishaparvin, D Indrani, **KSMS Raghavarao**, C Anandharamakrishnan	Computational fluid dynamics (CFD) modeling of an electrical heating oven for bread-baking process	Journal of Food Engineering, 100, (2010), 452-460.	2.771	39
45.	Chetan A. Nayak, NK. Rastogi and **KSMS Raghavarao**	Bioactive constituents present in Garcinia indica Choisy and its potential food applications: A review	International Journal of Food Properties, (2010) 13, 441-453	0.915	28
46.	KH Vishwanathan, H Umesh Hebbar and **KSMS Raghavarao**	Hot air assisted infrared drying of vegetables and its quality	Food Science and Technology Research (2010), 16(5), 381-388	0.355	20
47.	S.N. Raghavendra and **KSMS Raghavarao**	Effect of different treatments for the destabilization of coconut milk emulsion	Journal of Food Engineering, 97, (2010), 341-347	2.771	38
48.	A.B. Hemavathi, H. Umesh Hebbar, **KSMS Raghavarao**	Mixed reverse micellar systems for extraction and purification of β-glucosidase	Separation and Purification Technology, 71, (2010) 263-268.	3.091	25
49.	C. Swapna Joseph , KV Harish Prashanth,NK Rastogi, AR Indiramma , S Yella Reddy & KSMS **Raghavarao**	Optimum blend of chitosan and poly-(ε-caprolactone) for fabrication of films for food packaging applications	Food Bioprocess Technol (2009) 4:1179–1185	2.691	35
50.	Ganapathi Patil, M.C. Madhusudhan, B. Ravindra Babu and **KSMS Raghavarao**	Extraction, dealcoholization and concentration of anthocyanin from red radish	Chemical Engineering and Processing (2009), 48 (1), 364-369.	2.071	69
51.	AV Narayan, MC Madhusudan and **KSMS Raghavarao**	Extraction and purification of Ipomoea peroxidase employing three-phase partitioning	Applied Biochemistry and Biotechnology (2009), Volume 161 (2-3), 263-272	1.735	49
52.	B. Ravindra Babu, NK. Rastogi and **KSMS Raghavarao**	Mass transfer in Osmotic Membrane Distillation of liquid foods	Chemical Business (Special issue), (2008), 22 (9), 51-55	-	
53.	A.B. Hemavathi, Umesh Hebbar, and **KSMS Raghavarao**	Reverse micellar extraction of β-galactosidase from barley (Hordeum vulgare)	Applied Biochemistry & Biotechnology, (2008) 151(2-3) 522-531	1.735	12
54.	Chethana S, Ganapathi Patil, Madhusudhan MC and **KSMS Raghavarao**	Electrophoretic Extraction of Cells/Particles in a Counter Current Extractor	Separation Science and Technology, (2008), Vol. 43(14) 3583-3600.	1.171	1
55.	K Venkatesh Murthy, R Ravi, K K Bhat and **KSMS Raghavarao**	Studies on roasting of wheat using fluidized bed roaster	Journal of Food Engineering 89 (3), 336-342	2.771	17
56.	B. Ravindra Babu, NK. Rastogi and **KSMS Raghavarao**	Concentration and temperature polarization effects during osmotic membrane distillation	Journal of Membrane Science (2008) 322, 146-153	5.056	42
57.	K. Venkatesh Murthy, H. Umesh Hebbar, R. Chetana and **KSMS Raghavarao**	Optimization of process parameters for boondi preparation	Journal of Food Science and Technology 45 (2), pp. 123-126	2.203	1
58.	Ganapathi Patil, Chethana S, Madhusudhan MC and **KSMS Raghavarao**	Fractionation and purification of phycobiliproteins from Spirulina platensis	Bioresource Technology, 99 (2008) 7393–7396	4.494	45
59.	Umesh Hebbar, B. Sumana and **KSMS Raghavarao**	Use of reverse micellar systems for the extraction and purification of bromelain from pineapple wastes	Bioresource Technology (2008), 99(110), 4896-4902.	4.494	108
60.	MC Madhusudhan, **KSMS**	Integrated process for extraction and	Biochemical Engineering	2.467	47

	Raghavarao and Sanjay Nene	purification of alcohol dehydrogenase from Baker's yeast involving precipitation and aqueous two phase extraction	Journal (2008), 38 (3), 414-420.		
61.	B. Ravindra Babu, NK. Rastogi and **KSMS Raghavarao**	Liquid–liquid extraction of bromelain and polyphenol oxidase using aqueous two-phase system	Chemical Engineering and Processing, 47 (2008) 83-89	2.071	145
62.	Umesh Hebbar and **KSMS Raghavarao**	Extraction of bovine serum albumin using nanoparticulate reverse micelles	Process Biochemistry, (2007), 42, 1602-1608	2.516	44
63.	AB Hemavathi, H Umesh Hebbar and **KSMS Raghavarao**	Reverse Micellar Extraction of Bromelain from Ananas comosus L. Merryl	Journal of Chemical Technology and Biotechnology (2007), 82: 985-992.	2.349	29
64.	Ganapathi Patil and **KSMS Raghavarao**	Integrated membrane process for the concentration of anthocyanin	Journal of Food Engineering (2007) 78: 1233-1239.	2.771	37
65.	Ganapathi Patil and **KSMS Raghavarao**	Aqueous two phase extraction for purification of C-phycocyanin	Biochemical Engg. Journal (2007), 34: 156-164.	2.467	107
66.	Chethana S, Chetan A Nayak and **KSMS Raghavarao**	Aqueous two phase extraction for purification and concentration of betalains	Journal of Food Engineering (2007) 81: 679-687.	2.771	109
67.	AV Narayan, MC Madhusudhan and **KSMS Raghavarao**	Extraction and purification of C-phycocyanin from Spirulina platensis employing aqueous two phase systems	International Journal of Food Engineering (2007) 3 (4), 1-17	0.497	7
68.	Narayan AV, Barhate RS and **KSMS Raghavarao**	Extraction and purification of oryzanol from rice bran oil and rice bran oil soapstock	Journal of American oil Chemists Society (JAOCS) (2006), 83(8): 663-670.	1.541	28
69.	Ganapathi Patil, S.Chethana, A.S.Sridevi and **KSMS Raghavarao**	Method to obtain C-phycocyanin of high purity	Journal of Chromatography A (2006), 1127: 76-81	2.729	101
70.	B. Ravindra Babu, NK. Rastogi and **KSMS Raghavarao**	Effect of process parameters on transmembrane flux during direct osmosis	Journal of Membrane Science (2006) 280: 185-194.	5.056	47
71.	NK. Rastogi, K. Suguna, Chetan A. Nayak, and **KSMS Raghavarao**	Combined effect of γ-irradiation and osmotic pretreatment on mass transfer during dehydration	Journal of Food Engineering (2006) 77: 1059-1063.	2.771	10
72.	S. Chethana, NK. Rastogi and **KSMS Raghavarao**	New aqueous two phase system comprising polyethylene glycol and xanthan	Biotechnology Letters (2006) 28: 25–28	1.591	12
73.	B. Ravindra Babu, NK. Rastogi and **KSMS Raghavarao**	Mass transfer in osmotic membrane distillation of phycocyanin colorant and sweet-lime juice	Journal of Membrane Science 272 (2006) 58–69.	5.056	68
74.	Chetan A. Nayak, S. Chethana, NK. Rastogi and **KSMS Raghavarao**	Enhanced mass transfer during solid–liquid extraction of gamma-irradiated red beetroot	Radiation Physics and Chemistry (2006) 75, 173-178	1.380	35
75.	S.N. Raghavendra, S.R. Ramchandra Swamy, NK Rastogi., **KSMS Raghavarao**, Sourav Kumar, R.N. Tharanathan	Grinding characteristics and hydration properties of coconut residue: A source of dietary fiber	Journal of Food Engineering (2006) 72(3), 281-286.	2.771	153

76.	Naveen Nagaraj, Ganapathi Patil, B. Ravindra Babu, Umesh H. Hebbar, **KSMS Raghavarao** and Sanjay Nene	Mass transfer in osmotic membrane distillation	Journal of Membrane Science 268 (2006) 48–56.	5.056	41
77.	B Suresh, H.P. Bais, **KSMS Raghavarao**, GA Ravishankar and NP Ghildyal.	Comparative evaluation of bioreactor design using Tagetes Patula L.hairy roots as a model system.	Process Biochemistry 40 (2005) 1509-1515.	2.516	33
78.	Subramanian, R., M. Nakajima, **KSMS Raghavarao** and T. Kimura.	Processing vegetable oils using nonporous denser polymeric composite membranes	Journal of the American Oil Chemists' Society, 2004, 81(4): 313-322. review	1.541	47
79.	C Anandharamakrishnan SN Raghavendra, RS Barhate, U Hanumesh and **KSMS Raghavarao**.	Aqueous two-phase extraction for recovery of proteins from cheese whey	Trans IChemE Part C - Food and Bioproducts Processing (2005), 83(C2): 1-7.	2.474	22
80.	Naveen Nagaraj, Sampangi Chethana and **KSMS Raghavarao**.	Electrokinetic demixing of aqueous two-phase polymer/salt systems.	Electrophoresis (2005), 26, 10-17.	3.028	4
81.	NK. Rastogi and **KSMS Raghavarao**	Mass transfer during osmotic dehydration of pineapple: considering Fickian diffusion in cubical configuration	Lebensm. Wiss. u. Technol. (lwt). 37(1), 43-47, (2004)	2.416	136
82.	R.S Barhate, Ganapathi Patil, N.D. Srinivas and **KSMS Raghavarao**	Drop formation in aqueous two-phase systems	Journal of Chromatography – A, (2004), 1023,2, 197-206.	2.729	18
83.	NK. Rastogi, CA Nayak and **KSMS Raghavarao**	Influence of osmotic pre-treatments on rehydration characteristics of carrots	Journal of Food Engineering (2004) 65 (2), 287-292.	2.771	62
84.	NK. Rastogi and **KSMS Raghavarao**	Increased Mass Transfer during Osmotic Dehydration of γ-Irradiated Potatoes	Journal of Food Science (2004), 69(6) E259-263.	1.696	22
85.	S.N. Raghavendra, NK.Rastogi, **KSMS Raghavarao** and R.N. Tharanathan	Dietary fiber from coconut residue: effects of different treatments and particle size on the hydration properties	European Food Research and Technology (2004) 218 (6) 563-567	1.559	102
86.	NK. Rastogi and **KSMS Raghavarao**	Mass transfer during osmotic dehydration: Determination of moisture and solute diffusion coefficients from concentration profiles	Trans IChemE Part C - Food and Bioproducts Processing (2004) 82 (C1) 44-48	2.474	26
87.	**KSMS Raghavarao**, TV Ranganathan, N.D. Srinivas and RS Barhate	Aqueous two phase extraction—an environmentally benign technique	Clean Technologies and Environmental Policies, (2003), 5, 136-141	1.934	38
88.	**KSMS Raghavarao**, TV Ranganathan and NG Karanth	Some engineering aspects of solid-state fermentation	Biochemical Engineering Journal, (2003) 13, 127-135	2.467	249
89.	R Subramanian, **KSMS Raghavarao**, M Nakajima, H Nebatani, T Yamaguchi, and T Kimura	Application of dense membrane theory for differential permeation of vegetable oil constituents	Journal of Food Engineering, (2003), 60:249-256	2.771	24
90.	Naveen Nagaraj, AV Narayan, N.D. Srinivas and **KSMS Raghavarao**	Microwave-field-assisted enhanced demixing of aqueous two-phase systems	Analytical Biochemistry, (2003), 312(2), 134-140	2.219	14

91.	H.P. Bais, B. Suresh, **KSMS Raghavarao** and G. A. Ravishankar	Performance of hairy root cultures of Cichorium intybus L. in bioreactors of different configurations	In vitro Cellular and Development Biology, (2002), 38, 573-580.	0.981	18
92.	N.D.Srinivas, Naveen Nagaraj and **KSMS Raghavarao**	Acoustic field assisted demixing of aqueous two-phase polymer systems	Bioseparation, (2002), 10, 203-210	1.075	4
93.	NK. Rastogi, **KSMS Raghavarao**, K Niranjan and D Knorr	Recent developments in osmotic dehydration: methods to enhance mass transfer	Trends in Food Science and Technology, (2002), 13, 58-69	4.651	283
94.	S Nene, S Kaur, K Sumod, B Joshi and **KSMS Raghavarao**	Membrane distillation for the concentration of raw cane-sugar syrup and membrane clarified sugarcane juice	Desalination, (2002),147, 157-160	3.756	60
95.	N.D. Srinivas, AV Narayan and **KSMS Raghavarao**	Mass transfer in a spray column during two-phase extraction of horseradish peroxidase	Process Biochemistry, (2002), 38, 387-391	2.516	19
96.	AV Narayan, Naveen Nagaraj, Umesh H Hebbar, A. Chakravarti, Sanjay Nene and **KSMS Raghavarao**	Acoustic field-assisted osmotic membrane distillation	Desalination, (2002), 147, 149-156	3.756	26
97.	Naveen Nagaraj, N.D. Srinivas and **KSMS Raghavarao**	Acoustic field assisted demixing of aqueous two-phase systems	Journal of Chromatography - A (2002), 977, 163-172	2.729	10
98.	N.D Srinivas, R. S. Barhate, and **KSMS Raghavarao**	Aqueous two-phase extraction in combination with ultrafiltration for downstream processing of Ipomoea peroxidase	Journal of Food Engineering, (2002), 54, 1-6	2.771	61
99.	B Suresh, T Rajasekaran, S Ramachandrarao, GA Ravishankar and **KSMS Raghavarao**	Studies on osmolarity, conductivity and mass transfer for selection of a bioreactor for Tagetes patula L. hairy roots	Process Biochemistry (2001), 36. 987-993	2.516	23
100.	**KSMS Raghavarao**, N.D. Srinivas, S Chethana and Paul Todd	Field assisted extraction of cells, particles and macromolecules	Trends in Biotechnology, (2001),21, 72-78	11.958	94
101.	Subramanian, R, **Raghavarao KSMS**, Nebatani, H, Nakajima, M, Kimura, T and Maekawa T	Differential permeation of oil constituents in nonporous denser polymeric membranes	Journal of Membrane Science, (2001), 187, 57-69	5.056	57
102.	P. Todd, , **KSMS Raghavarao**, S. Sengupta, JF Doyle, J Vellinger and M Deuser	Multistage electrophoresis system for the separation of cells, particles and solutes	Electrophoresis, (2000), 21, 318-324	3.028	8
103.	R Subramanian, KE Nandini, AG Gopalakrishna, **KSMS Raghavarao**, T Kimura and T Maekawa	Membrane processing of used frying oils	Journal of the American Oil Chemists' Society, (2000), 77,323-328	1.541	58
104.	N.D. Srinivas, R.S. Barhate, **KSMS Raghavarao**, and P Todd	Acoustic field assisted enhanced demixing of aqueous two-phase systems	Biochemica et Biophysica Acta, (2000), 1524, 38-44	4.381	11
105.	N.D. Srinivas, R.S. Barhate, **KSMS Raghavarao**, and P Todd	Acoustic demixing of aqueous two-phase systems	Applied Microbiology and Biotechnology,	3.337	12

			(2000), 55, 650-654		
106.	S. Tanuja, N.D. Srinivas, M.K. Gowthaman and **KSMS Raghavarao**	Aqueous two-phase extraction coupled with ultrafiltration for purification of amyloglucosidase	Bioprocess Engineering, (2000), 23, 63-68	0.693	17
107.	M.P. Nandakumar, M.S. Thakur, **KSMS Raghavarao** and N.P. Ghildyal	Studies on catabolite repression in solid state fermentation for biosynthesis of fungal amylases	Letters in Applied Microbiology (1999), 29, 380-384	1.659	44
108.	N.D. Srinivas, KR Rasmi and **KSMS Raghavarao**	Extraction and purification of a plant peroxidase by aqueous two-phase extraction coupled with gel filtration	Process Biochemistry, (1999), 35, 43-48	2.516	73
109.	**KSMS Raghavarao**, SR Rudge and Paul Todd,	BIOSEPARATIONS AND DOWNSTREAM PROCESSING-Electrokinetic Demixing of Aqueous Two-Phase Systems. 3. Drop Electrophoretic Mobilities and Demixing Rates	Biotechnology Progress (1998) 14, 922-930	2.149	23
110.	S. Tanuja, N.D. Srinivas, M.K. Gowthaman and **KSMS Raghavarao**	Aqueous two-phase extraction for downstream processing of amyloglucosidase	Process Biochemistry (1997), 32(8): 635-641	2.516	53
111.	N.K. Rastogi and **KSMS Raghavarao**	Water and solute diffusion coefficients of carrot as a function of temperature and concentration during osmotic dehydration	Journal of Food Engineering (1997), 34, 429-440	2.771	152
112.	N.K. Rastogi, K. Niranjan and **KSMS Raghavarao**	Mass transfer during osmotic dehydration of banana: Fickian diffusion in cylindrical configuration	Journal of Food Engineering (1997), 31, 423-432	2.771	113
113.	N.K. Rastogi and **KSMS Raghavarao**	Kinetics of osmotic dehydration under vacuum	Food Science and Technology (LWT) (1996), 29, 669-672	2.416	62
114.	M.P. Nandakumar, M.S. Thakur, **KSMS Raghavarao** and N.P. Ghildyal	Substrate particle size reduction by B. Coagulance in solid state fermentation	Enzyme and Microbial Technology, (1996), 17, 121-125	2.322	20
115.	**KSMS Raghavarao**, N.K.Rastogi, M.K.Gowthaman and N.G. Karanth	Aqueous two-phase extraction for downstream processing of enzymes/proteins	Advances in Applied Microbiology, (1995) 41, 97 – 171	2.737	105
116.	D.C. Saxena, P. Haridasarao and **KSMS Raghavarao**	Analysis of modes of heat transfer in Tandoor oven	Journal of Food Engineering, (1995), 26, 209-217	2.771	11
117.	**KSMS Raghavarao** and N.G. Karanth	Some biochemical engineering aspects of solid state fermentation	Proceedings of Microbiology Inter-national Conference, (1995), 553-557		
118.	N.K. Rastogi and **KSMS Raghavarao**	Kinetics of osmotic dehydration of coconut	Journal Food Process Engineering, (1995), 18, 187-197	0.675	47
119.	M.K.Gowthaman, **KSMS Raghavarao**, N.P. Ghildyal and N.G. Karanth	Estimation of K_{La} in solid state fermentation using a packed-bed bioreactor	Process Biochemistry, (1995), 30,9-15	2.516	29
120.	N.K. Rastogi and **KSMS**	Effect of temperature and	Food Science and	2.416	93

	Raghavarao	concentration on osmotic dehydration of coconut	Technology (lwt), (1994), 27, 564-567		
121.	M.P. Nandakumar, M.S. Thakur, **KSMS Raghavarao** and N.P. Ghildyal	Mechanism of Solid Particle Degradation by *Aspergillus niger in* Solid State Fermentation	Process Biochemistry, (1994), 29, 545-551	2.516	39
122.	M.V. Raman Murthy, N.G. Karanth and **KSMS Raghavarao**	Biochemical engineering aspects of solid -state fermentation.	Advances in Applied Microbiology, (1993), 38,99-147	2.737	102
123.	M.K. Gowthaman, **KSMS Raghavarao**, N.P. Ghildyal and N.G. Karanth	Interaction of transport resistances with biochemical reaction in packed-bed solid-state fermentors: effect of temperature gradients	Enzyme and Microbial Technology, (1993), 16, 253-257	2.322	75
124.	N.P. Ghildyal, M.K. Gowthaman, **KSMS Raghavarao** and N.G. Karanth	Interaction of transport resistances with biochemical reaction in packed bed solid state fermenters: The effect of gaseous concentration gradients	Journal of Chemical Technology Biotechnology, (1993), 56, 233- 239	2.349	41
125.	M.K. Gowthaman, **KSMS Raghavarao**, N.P. Ghildyal and N.G. Karanth	Gas concentration and temperature gradients in a packed bed solid-state fermentor	Biotechnology Advances, (1993), 11, 611-620	9.015	32
126.	**KSMS Raghavarao,** N.P. Ghildyal, M.K. Gowthaman and N.G. Karanth	A mathematical model for solid state fermentation in tray bio-reactors	Bioprocess Engineering, (1993), 8, 255 - 262	0.693	32
127.	**KSMS Raghavarao**, R. Hertz and P. Todd	Electro- kinetic de-mixing of two-aqueous polymer systems II: Separation rates of polyethylene glycol-maltodextrin mixtures	Separation Science and Technology, (1991), 26, 257-267	1.171	4
128.	**KSMS Raghavarao,** S.B. Sawant, J.B. Joshi and S.K. Sikdar	Protein extraction in a spray column using a polyethylene glycol-maltodextrin two-phase polymer system	The Chemical Engineering Journal (1991), 46, B75-81	4.321	13
129.	V.B. Rewatkar, **KSMS Raghavarao** and J.B. Joshi	Critical impeller speed for solid suspension in mechanically agitated three-phase reactors. 1. Experimental part	Industry & Engineering Chemistry, (1991), 30, 1770 – 84.	3.512	76
130.	J.B. Joshi, **KSMS Raghavarao**, S.B. Sawant, K.M. Rostani and S.K. Sikdar	Protein extraction using low cost aqueous two phase system in spray columns	Bioseparation, (1990), 1, 358-379	1.075	
131.	**KSMS Raghavarao**, R. Hertz and P. Todd	Electro-kinetic demixing of two-aqueous polymer systems I: Separation rates of polyethylene glycol-dextran mixtures	Separation Science and Technology, (1990), 25, 985-996	1.171	5
132.	V.B. Rewatkar, **KSMS Raghavarao** and J.B. Joshi	Power consumption in mechanically agitated contactors using pitched bladed turbine impellers	Chemical Engineering Communication, (1990), 88, 69-90	1.104	29
133.	**KSMS Raghavarao** and J.B. Joshi	Power consumption and gas dispersion in mechanically agitated gas-liquid contactors	International Journal of Engineering Fluid Mechanics (1989), 2, 645-663	-	
134.	V.B. Rewatkar, **KSMS Raghavarao** and J.B. Joshi	Some aspects of solid suspension in mechanically agitated contactors	AIChEJ, (1989), 35, 1581-83	2.748	

135.	**KSMS Raghavarao** and J.B. Joshi	Liquid phase mixing in mechanically agitated three phase contactors	Proceeding of 6th European conference on mixing (1988), Pavia, Italy	-	
136.	**KSMS Raghavarao** and J.B. Joshi	Liquid-phase mixing and power consumption in mechanically agitated solid—liquid contactors	Chemical Engineering Journal (1988),39, 111- 124	4.321	35
137.	**KSMS Raghavarao** and J.B. Joshi	Liquid phase mixing in mechanically agitated vessels	Chemical Engineering Communication (1988), 67, 394-416	1.104	42
138.	**KSMS Raghavarao,** V.B. Rewatkar and J.B. Joshi	Critical impeller speed for solid suspension in mechanically agitated contactors	AIChEJ, (1988), 34, 1332-1340	2.748	104
139.	A.D. Raidoo, **KSMS Raghavarao**, S.B. Sawant and J.B. Joshi	Improvement in the gas inducing impeller design	Chemical Engineering Communication (1987), 39, 43-53	1.104	34
140.	J.B.Joshi, A.B.Pandit and **KSMS Raghavarao**	Axial mixing in multiphase sparged contactors	Encyclopedia of Fluid Mechanics. Gulf Publication Co. USA (1985). Vol 3	-	8
Review Papers					
141.	Hrishikesh AT, Dugeshwar Karley, K Venkatesh Murthy & **KSMS Raghavarao**	Equipments for demixing of aqueous two phase systems	Current Biochemical Engineering, 2 (2), 148-167, **(**2015)		
142.	Richa Sharma, K V Ragavan, M. S. Thakur and **KSMS Raghavarao**	Recent advances in nanoparticle based aptasensors for food contaminants	Biosensors and Bioelectronics (IF:6.45) , 74 612–627. (2015)		29
143.	Chandrasekhar J, Hrishikesh A Tavanandi and **KSMS Raghavarao**	Application of ionic liquids in separation and downstream processing of biomolecules	Current Biochemical Engineering, , 2 (2), 135-147 **(**2015)		
144.	Aduja Naik, MC Madhusudhan, **KSMS Raghavarao** and Dilip Subba	Downstream processing for production of value added products from coconut	Current Biochemical Engineering, 2 (2), 168-180 (2015)		
145.	Ram Saran Chaurasiya, Umesh Hebbar & **KSMS Raghavarao**	Recent developments in nano particulate based reverse micellar extraction for Downstream processing of biomolecules	Current Biochemical Engineering 2 (2), 118-134 **(**2015),		1
146.	Madhusudhan MC,Amrutha.N, Anupama rani, and **KSMS Raghavarao**	Aqueous two phase extraction in Downstream processing,	Current Biochemical Engineering 2(1) 39-48 (2015)		
147.	N. Chhanwal, A. Tank, **KSMS. Raghavarao** and **C.** Anandharamakrisnan	"Computational fluid dynamics applications in bread baking process",	*Food and Bioprocess Technology.* 2012, 5(4), 1157-1172,		39
148.	N. N. Misra , B. K. Tiwari, **KSMS. Raghavarao** and P. J. Cullen	Nonthermal plasma Inactivation of Food Borne Pathogens	Food Engineering Reviews, Vol-3(3-4), (2011), 159-170,		121
149.	Chetan A Nayak, Navin.K.Rastogi, **KSMS Raghavarao**	Bioactive constituents present in *Garcinia Indica Choisy* and its potential food applications: A review.	International Journal of Food Properties 13 (3), 441-453, 2010		28
150.	N.K. Rastogi, **KSMS Raghavarao,** V.M.	Opportunities & challenges in high pressure processing of foods	*Critical reviews in Food Science and Nutrition* (2007), 47 (1), 69-112,		454

	Balasubramaniam, K. Niranjan, and D. Knorr .		(Topmost cited article in last three years)	
151.	Narayan, A. V. Barhate, R. S. **Raghavarao, K. S. M. S.**	Extraction and purification of oryzanol from rice bran oil and rice bran oil soapstock	Journal of the American Oil Chemists Society, (2006), Vol-83, 663-670	28
152.	Subramanian, R; Nakajima, M; **Raghavarao, KSMS**; Kimura, T	Processing vegetable oils using nonporous denser polymeric composite membranes	Journal of the American Oil Chemists Society, Vol-81, (2004) 313-322	47
153.	**KSMS Raghavarao,** TV Ranganathan and N.G Karanth	Some engineering aspects of solid state fermentation	Biochemical Engineering Journal 13 (2-3), pp. 127-135,2003	249
154.	V. Prakash and **KSMS Raghavarao**	Strategic devices	Times Food Processing Journal (2003), 3, 14-17	
155.	**KSMS Raghavarao**, TV Ranganathan, N.D. Srinivas and R.S. Barhate	Aqueous two-phase extraction-An environmentally benign technique	Clean Technologies and Environmental Policies, (2003), 5, 136-141	38
156.	NK Rastogi, **KSMS Raghavarao,** K Niranjan and D Knorr	Recent developments in osmotic dehydration" Enhancement in mass transfer	Trends in Food Science and Technology, (2002),13, 58-69	283
157.	S. Harikrishna, N.D. Srinivas, **KSMS Raghavarao,** and N.G. Karanth	Reverse micellar extraction for downstream processing of enzymes/proteins	Advances in Biochemical Engineering/Biotechnology, (2002), 75, 119-183	99
158.	**KSMS Raghavarao,** N.D. Srinivas, S Chethana and Paul Todd	Field assisted extraction of cells, particles and macromolecules	Trends in Biotechnology, (2001),21, 72-78	94
159.	**Raghavarao, KSMS;** Guinn, MR; Todd, P	Recent developments in aqueous two-phase extraction in bioprocessing	Separation and Purification Methods, Vol-27(1998), 1-49	62
160.	**Raghavarao, KSMS**; Rastogi, NK; Gowthaman, MK; Karanth, NG	Aqueous two-phase extraction for downstream processing of enzymes proteins	Advances in Applied Microbiology, Vol 41 (1995) 313-322	105

Editorials:

S.No	Authors	Name of the paper	Journal
1	**KSMS Raghavarao**	Editorial , 2 (1), 3, **(**2015)	Thematic issue: Downstream processing: prospects and problems (part-1), Current Biochemical Engineering
2	**KSMS Raghavarao**	Editorial , 2 (2), 101, **(**2015)	Thematic issue: Downstream processing: prospects and problems, (part-2) Current Biochemical Engineering

Publications in National Journals

1.	K.S.M.S. Raghavarao, Navin K. Rastogi and A. Hrishikesh	**Value-added products from coconut**	Indian Coconut Journal Vol LIV (7), 11-14. 2011,
2.	KSMS Raghavarao**, S. N Raghavendra and NK.**	Potential of coconut dietary fibre.	Indian coconut journal, (2008), 6 , 2-7

	Rastogi		
3.	Rastogi, NK. And **Raghavarao**, **KSMS**.	Suskit nariyal dudh powder ka utpadan (Hindi translation).	*Bhartiye Nariyal Patrika*, 17(2): 15-19. (2006).
4.	Rastogi, NK. and **Raghavarao**, **KSMS**.	Nariyal avsad se upyogi aahariye resha (Hindi translation).	*Bhartiye Nariyal Patrika*, 17(1): 15-18. (2006).
5.	NK. Rastogi and **KSMS Raghavarao**	Production of dehydrated coconut milk powder	Indian Coconut Journal (2006) 36 (12), 12-17
6.	NK. Rastogi and **KSMS Raghavarao**	Dietary fibre from spent coconut residue	Indian Coconut Journal (2006) 36 (10), 3-9
7.	**Raghavarao**, **KSMS**., Raghavendra, S.N. and Rastogi, NK.	Potential of coconut dietary fiber,	*Seminar on coconut for health, 31st july 2005 Coimbatore*
8.	H Umesh Hebbar, and **KSMS Raghavarao**.	Reverse micellar extraction of horseradish peroxidase using non ionic surfactants	Proceedings of INDO-US joint conference Dec 27-30, Mumbai, 2004
9.	H Umesh Hebbar, M N Ramesh and **KSMS Raghavarao**.	Heat and mass transfer during infrared drying of vegetables	In Proceedings of International Workshop and Symposium on Industrial Drying (IWSID 2004) held during December 21-24, 2004 in Mumbai,
10.	NK Rastogi and **KSMS Raghavarao**.	Enhancement of mass transfer in Osmotic dehydration of food by application of external field	In Proceedings of International Workshop and Symposium on Industrial Drying (IWSID 2004) held during December 22-23, 2004 in Mumbai,
11.	NK Rastogi and **KSMS Raghavarao**.	Mechanism of mass transfer during Osmotic dehydration.	In Proceedings of International Workshop and Symposium on Industrial Drying (IWSID 2004) held during December 22-23, 2004 in Mumbai,
12.	K. Venkatesh Murthy, Ganapathi Patil and **KSMS Raghavarao**	Fluidisation for drying, roasting and popping of grains	In Proceedings of International Workshop and Symposium on Industrial Drying (IWSID 2004) held during December 21-24, 2004 in Mumbai,
13.	K. Venkatesh Murthy and **KSMS Raghavarao**	Analysis of modes of heat transfer in Continuous Dosa Machine	Proceedings of 8th Asian Food Conference, Hanoi, Vietnam, 8-11th October (2003)
14.	Naveen Nagaraj, Ganapathi Patil, B. Ravindra Babu, Umesh H. Hebbar **KSMS Raghavarao** and Sanjay Nene	Modelling of mass transfer in osmotic membrane distillation	Proceedings of Filtech Europa – 2003, Dusseldorf, Germany, 21- 23rd , October (2003),2,435-443
15.	NK. Rastogi and **KSMS Raghavarao**	Production of dehydrated coconut milk powder	Technology for smaller communities, published by RRL, Bhopal, 2003 (Released in National Science Congress Jan 2003)
16.	Nene, S; Kaur, S; Sumod, K; Joshi, B; Raghavarao, KSMS	Membrane distillation for the concentration of raw cane-sugar syrup and membrane clarified sugarcane juice	International Congress on Membranes and Membrane Processes (ICOM), JUL 07-12, 2002
17.	Narayan, AV; Nagaraj, N; Hebbar, HU;	Acoustic field-assisted osmotic membrane distillation	International Congress on Membranes and Membrane Processes (ICOM), JUL 07-12, 2002

	Chakkaravarthi, A; Raghavarao, KSMS; Nene, S		
18.	NK Rastogi, **KSMS Raghavarao**, K. Niranjan, A. Angerbach and D Knor	Impact of ultrahigh pressure on cell permeabilisation and its influence on kinetics of osmotic dehydration and rehydration	Proceedings of European Conference on Advanced Technology for Safe and High Quality Foods, 5-7 Dec 2001. Germany.
19.	Rastogi, NK. **Raghavarao**, **KSMS**. and Laxmivanketesh, K.V.,	R&D on coconut at CFTRI, Mysore.	Conference held at *Amlapuram organized by Small Industries Service Institute (SISI) Hyderabad* (Jan 19-20, 2001).
20.	Todd, P; Raghavarao, KSMS; Sengupta, S; Doyle, JF; Vellinger, J; Deuser, MS	Multistage electrophoresis system for the separation of cells, particles and solutes	Meeting of the International-Council-of-Electrophoresis-Societies, MAY 25-28, 1999

Number of Books authored/edited

1.	J.B.Joshi, A.B.Pandit and **KSMS Raghavarao**	Axial mixing in multiphase sparged contactors	Encyclopaedia of Fluid Mechanics.Gulf Publication Co. USA (1985).Vol 3, 1136-1179
2.	M.V. Raman Murthy, N.G. Karanth and **KSMS Raghavarao**	Biochemical engineering aspects of solid state fermentation.	Advances in Applied Microbiology, (1993), 38,99-147
3.	**KSMS**., **Raghavarao**, NK., Rastogi Gowathman M.K. and N.G. Karanth	Aqueous two phase extraction for downstream processing of enzymes/ proteins.	Advances in Applied Microbiology, Academic Press. USA, Vol 41, p97-172. 1995.
4.	**KSMS Raghavarao**, Martin R Guinn and Paul Todd.	Recent developments in aqueous two phase extraction in bioprocessing,	Separation and purification Methods, 1998, vol 27, 1-49
5.	**KSMS Raghavarao**, Marc Dueser and Paul Todd,	Multistage Magnetic Electrophoretic Extraction of cells, particles and macromolecules.	Advances in Biochemical Engineering and Biotechnology, (2000), 68, 139-191
6.	S. Harikrishna, N.D. Srinivas, **KSMS Raghavarao**, and N.G. Karanth,	Reverse micellar extraction for downstream processing of enzymes/proteins.	Advances in Biochemical Engineering/Biotechnology, (2002), 75, 119-183
7.	NK., Rastogi, **KSMS**. **Raghavarao**, and K. Niranjan,	Developments in osmotic dehydration	Emerging Technologies in Food Processing, Editor Da-Wen Sun. Academic Press, Elsevier, London, UK. pp 221-250. (2005).
8.	**KSMS Raghavarao,** Naveen Nagaraj, Ganapathi Patil, B. Ravindra Babu and K. Niranjan	Athermal membrane processes for the concentration of liquid foods and natural colors	Emerging Technologies In Food Processing, Editor Da-Wen Sun. Academic Press, Elsevier, London. (2005) 251-277**.**

9.	S.Chethana, Ganapathi Patil and **KSMS Raghavarao**	Magnetic and Electrophoretic Cell Separation	Encyclopedia of Biomaterials and Biomedical Engineering (2005), 943-952.
10.	**KSMS Raghavarao,** B. Ravindrababu, N.K. Rastogi, G. Muralikrishna and K. Mahalingeswara Bhat	Application of polysaccharides in food and non-food industries.	In- Agriculture and food chemistry, Eds- DI. Givens and NK. Bhat, Research sign post publications, India (2008), 1-38.
11.	Sanjay Nene ,Ganapathi Patil and **KSMS Raghavarao**	Membrane distillation in food processing	Hand book of membrane separation: Chemical, pharmaceutical and biotechnological applications, Marcel Dekker Publications, New York (2009), 513-552
12.	AB. Hemavathi, Umesh H. Hebbar, and **KSMS Raghavarao**	Reverse micellar extraction of bio active compounds for food products.	Enhancing extraction processes in food processing industry, (Taylor and Francis publications) Editor- Da-Wen Sun, (2011), 400-431
13.	MC. Madhusudhan & **KSMS Raghavarao**	Extraction and purification of pigments and enzymes from *Beta vulgaris* using aqueous two phase extraction	Red beet biotechnology for food and biopharmaceutical applications, (2011), 393-406 (Springer publications) Editor: Bhagyalakshmi Neelwarne,
14.	MC. Madhusudhan, MC. Lakshmi and **KSMS Raghavarao**	Aqueous two phase extraction of enzymes for food processing	Enhancing extraction processes in food processing industry, (Taylor and Francis publications) Editor- Da-Wen Sun, (2011) 438-471
15.	**KSMS. Raghavarao**, NK. Rastogi and K. Niranjan	Advances in reverse osmosis technology for processing of fruit juices	Membrane processes for sustainable growth, Nova Sciences Publishers, UK (Ed. Basile A. and Cassano A.), 2013, 289-312
16.	**Raghavarao KSMS,** Madhusudhan MC, Hrishikesh A Tavanandi and K Niranjan	Athermal Membrane Processes for the Concentration of Liquid Foods and Natural Colours	Emerging Technologies for Food Processing". Editor Da-Wen Sun (Academic press, Elsevier publications), 2013 *(In Press)*
17.	NK. Rastogi, **KSMS. Raghavarao**, and K. Niranjan	Recent developments in osmotic dehydration	Emerging Technologies for Food Processing". Editor Da-Wen Sun (Academic press, Elsevier publications), 2013 *(In Press)*
18.	J Chandrasekhar and **KSMS Raghavarao**	Purification and concentration of anthocyanins from jamun: An integrated process	***Chemical and Biochemical Engineering: Trends and Developments,*** Apple Academic Press, Taylor & Francis Group, 2014,

			(**INPRESS)**
19.	Navin K. Rastogi, Sachin R. Adsare, Dugeshwar Karley, K. Niranjan and **KSMS Raghavarao**	Osmotic dehydration: applications and recent advances	National Institute of Food Technology Entrepreneurship and Management (NIFTEM), 2014 (Accepted)
20.	Richa Sharma, K.V. Ragavan, **KSMS Raghavarao** and M.S. Thakur	Nano-aptamer based quantitative detection of chloramphenicol	Biotechnology and Biochemical Engineering, Select Proceedings of ICACE 2015, B.D. Prasanna et al. (eds.), Springer, 2016, 187-195

List of Processes Developed:

1. Process for the production of spray dried coconut milk powder.
2. Process for the production of phycocyanin from spirulina platensis.
3. Process for the production dietary fiber from spent coconut residue
4. Process for the production of mango powder.
5. Process for the extraction and purification oryzanol from rice bran oil soap stock.
6. Integrated hot air roaster for roasting of grains and other food products (Design drawing).
7. Process for the extraction and purification of betalains from beet
8. Process for the production of virgin coconut oil
9. Process for the production of Improved dosa machine (Design drawings)
10. Process for the production of Sugarcane juice in tetra packs
11. Process for the production of Sugarcane juice concentrate
12. Process for the production of Tender coconut jam
13. Production of Coconut spread base on matured coconut water concentrate and coconut dietary fibre.
14. Coconut beverage in tender coconut.
15. Moulding machine for Basan, Sooji/Rava and similar Laddus.
16. Acoustic mist reactor for hairy root/plant cell cultures
17. Grating machines for vegetables.
18. Continuous circular cutting machine for citrus fruits (Lemon etc.).
19. Forming and frying machine for Poory, an Indian traditional food.
20. Continuous wet grinding machine.
21. Coconut beverage from tender coconut.
22. Continuous wet grinding machine.
23. Mini Chikki Mill

List of Processes released/Technology transferred to industry:

1. Process for the production of virgin coconut oil (Patent Application # 443/DEL/2009).
2. Process for the production of spray dried coconut milk powder (Patent Application # 2455/DEL/95)
3. Process for the production of phycocyanin from Spirulina platensis. (Patent # 237338; Patent Application # 1358/DEL/1996, 2504/DEL/1996)
4. Process for the production dietary fiber from spent coconut residue (Patent Application # 741/DEL/2005)
5. Integrated hot air (vibro fluidized bed) roaster for roasting of grains and other food products (Design drawings). (International Patent # WO2006103526, Indian patent Application # 753/DEL/2005)
6. Process for dehydrated dosa batter suitable for machine.
7. Improved dosa machine (Design drawings)
8. Process for the production of Sugarcane juice in tetra packs (Patent # 231590)
9. Process for the production of Sugarcane juice concentrate (Patent Application # 0805/DEL/2008).
10. Process for the production of Tender coconut jam (Patent # 239079, Patent Application # 0287/DEL/2009).
11. A device for pneumatic extrusion of dough (Patent Application # DEL/135/ 2010)
12. Lemon cutting machine.
12. Moulding machine for basan, soji/rava and similar laddus. (Patent Application # 742/DEL/2005)
13. Forming and frying machine for Poory, an Indian traditional food. (Patent Application # NF/007/2011)

Projects implemented:

- **Number of Network projects: 2**
- **Number of Grant in aid projects: 21**
- **Number of sponsored projects: 6**
- **Number of consultancy projects: 18**