



Ch. Sasikala M.Sc.,Ph.D

Professor and Chairperson, BOS in Environmental science ,

- ▶ **Elected member of International committee on Systematics of Prokaryotes: subcommittee on the taxonomy of Phototrophic bacteria**
- ▶ **Elected, member of New York Academy of Sciences**
- ▶ An eminent scholar with more than 100 research publications in peer reviewed journals of international repute with IMPACT FACTOR up to 9.6.
- ▶ Recipient, “UGC-Research Scientistship” of University Grants Commission, New Delhi, for the year, 1994.
- ▶ Recipient, “DST -Young Scientist” project for the year 1997
- ▶ Recipient, “Biotechnology Overseas Associateship 2007-2008”, of Department of Biotechnology, Government of India, New Delhi.
- ▶ Visiting professor to Department of of marine microbiology, IFM-GEOMAR, Kiel, Germany
- ▶ Member, Editorial Board, Indian Journal of Microbiology (Springer).
- ▶ Referee for International Journal of Hydrogen Energy (Elsevier Science Publishers), Indian Journal of Microbiology (Springer) and Indian Journal of Experimental Biology and Journal of scientific and industrial research (NISCOM, India), Journal of General and Applied Microbiology (Centre for academic publications, Japan) International journal of plant physiology and biochemistry, Antonie Van Leeuwenhoek journal of microbiology, Journal of Applied microbiology and many more journals
- ▶ Technical reviewer for R and D projects of by DBT & MoES, Government of India
- ▶ Recognized as Govt. Analyst by Central Pollution Control Board, New Delhi
- ▶ Elected active member of the “New York Academy of Science”.
- ▶ Biography included in “Who is Who in the World” (Marquis Who ’s Who), 1996-2010
- ▶ Invited to be Member of “Professional Women ’s Advisory Board” of American biographical society
- ▶ Life Member “The Association of Microbiologists of India”.
- ▶ **Email Id:** sasi449@jntuh.ac.in, sasi449@yahoo.ie, sasikala.ch@gmail.com

RESEARCH CONTRIBUTION

Studies on bacterial diversity

Enumerated, isolated, characterized and identified different groups of bacteria from diverse habitats of India

☞ Total bacterial isolates	:	~1800
☞ Pure cultures	:	560
☞ 16S rRNA gene sequenced	:	1200
☞ Species identified as novel taxa	:	82
☞ Species names validly published	:	51 (31)
☞ Novel genera described	:	2 (2)
☞ Novel Family described	:	(2)
☞ New Order described	:	(1)
☞ Emended description of Genus	:	4
☞ Generated FTIR fingerprinting library	:	90
☞ Bacterial whole genome sequenced	:	1 (2)

- ☞ So far deposited about 60 type strains of purple sulfur, green sulfur and purple non-sulfur bacteria with Microbial Type Culture Collection, India (MTCC), American Type Culture Collection (ATCC), German Culture Collection Centre (DSMZ), Japanese collection of microorganisms (JCM) and CCUG (culture collection of University of Goteborg), NBRC (Japan)TC (Korea)
- ☞ Discovered that the colour of the "Pink pond of Hyderabad", the Noor Mohammed Kunta is because of the presence of a purple sulfur bacterium, Thiopedia sp. and not because of dyes in the effluents of textile industry being let out into the lake, as widely believed.
- ☞ Studied in detail the metabolomes and heterogeneity in Rhodospirillum rubrum
- ☞ Preparing Libraries of carotenoids, fatty acids, and lipids of purple phototrophic bacteria

New methods developed.

- ☞ Developed novel methods for selective enrichment and enumeration of anoxygenic phototrophic bacteria

- ☞ Developed a rapid and inexpensive typing method for screening anoxygenic phototrophs based on FT-IR spectroscopy which considers the whole cell metabolomes

Biotechnological potentials

- ☞ Production of hydrogen as an eco-friendly fuel from microbial biomass of purple non-sulfur bacteria was demonstrated in a lab scale photoreactor using industrial effluents and optimized various parameters required for its production.
- ☞ Production of other eco-friendly products viz. Biodegradable polyesters and herbicides from purple bacteria was attempted and extensive review articles were published.
- ☞ Bacterial mortar and bacterial concrete casting using *Bacillus subtilis* has resulted in enhanced compressive strength, durability.

Bacterial catabolomics

- ☞ Studies on the Biodegradation and metabolism of hazardous homocyclic aromatic compounds under anaerobic conditions by purple non-sulfur bacteria were carried out mainly on the nitro, halo and hydroxyl derivatives. Metabolism of sulfonated aromatics is being studied in purple sulfur bacteria.
- ☞ Biotransformation of nitrogen containing and heterocyclic aromatic compounds to value added products like anti cancer compounds and plant growth promoting substances.
- ☞ metabolism and toxicity of heterocyclic aromatic compounds on purple bacteria studied with reference to indoles, pyridine and pyrazinoic acid.
 - ☞ Discovery of novel metabolites, metabolic pathways and enzymes

Major metabolite discovery

- ☞ **a)** Indole terpenoid conjugates (54 novel molecules identified & 4 fully characterized)
- ☞ **b)** Phenol terpenoid conjugates (13 novel molecules identified & 2 fully characterized)
- ☞ **c)** Phenolics (8)
- ☞ **d)** Indolics (18)
- ☞ **e)** Carotenoid glycoside conjugates (2; hydroxylycopene)

glycoside; Dihydroxylycopene diglycoside)

- ☞ **f)** Unique BChl-protein complexes (3)
- ☞ **g)** ω Fatty acids (14)
- ☞ **h)** Hydropyrazines(3)
- ☞ **i)** carotenoids (6)
- ☞ **j)**Others (8)

Enzyme discovery

- ☞ Enzyme discovery: 8 (5 novel)
- ☞ EC numbers granted for 3 novel enzymes (DOPA reductive deaminase [EC: 4. 1. 3. 22]; DOPA aminotransferase [EC: 2.6.1.99]; DOPA oxidative deaminase [EC: 4.1.3.-])

Novel pathway discovery: 6

- ☞ Anthranilate to indole by fumarate conjugation
- ☞ Fumarate dependent Isopentenyl pyrophosphate (IPP) synthesis
- ☞ Terpenoid dependent conjugative detoxification of aromatic hydrocarbons
- ☞ Tryptophan amino lyse (WAL) dependent catabolic pathway of Ltryptophan
- ☞ Reductive catabolism of pyrazines 2-carboxylate
- ☞ DOPA and DOPP pathway for L-phenylalanine/L- tyrosine catabolism

Bioprospecting

Bioprospecting for novel antioxidants, phytohormones and anticancer metabolites from anoxygenic phototrophic bacteria has resulted in the discovery of potent phytohormones; COX -2 inhibitors and compounds with cytotoxicity against cancer cell lines.

- ☞ Rhodestrin [phytohormonal activity (0.05 μ mol)]
- ☞ Sphestrin (antimicrobial activity)
- ☞ Rhodethrin [Phytohormonal activity (0.05 μ mol)], cytotoxicity [Sup-TI, Jurkat cells & Colo- 125;20 picomol], COX-2 [45%] inhibitory activity]
- ☞ Rhodophestrol [cytotoxicity (U937 cell lines; 50 nmol), COX-1 (50%), COX-2(20%) inhibitory activity]

Commercialisation of process/products

Marichromatium indicum, being used for aquaculture ponds (M/S Growell formulations, Hyderabad)

Technology transfer: Mass cultivation of *Rhodospirillum rubrum* for biomass production, being exported by M/s. SOM Phytopharma, Hyderabad

Commercial media formulation for *Rhodospirillum rubrum* for use by M/s. SOM Phytopharma, Hyderabad

Research publications : 103
(In standard refereed journals)

Other publications : 2 modules on environmental microbiology for P.G. Diploma in Environmental Management by University of Hyderabad, Hyd.

LIST OF PUBLICATIONS (in standard refereed journals)

S.No	Authors	Title	Journal	Year
103	Mujahid, MD., Aravind, I., Lakshmi prasuna, M., Rama prasad, V. V. E Sasikala Ch, & Ramana, Ch.V	Genome sequence of a phototrophic betaproteobacterium, <i>Rubrivivax benzoatilyticus</i> strain JA2 ^T	J. Bacteriol. (Accepted)	2011
102	Lakshmi, KVNS., Sasikala, Ch. & Ramana, Ch.V.	<i>Phaeospirillum oryzae</i> sp. nov. A spheroplast forming phototrophic alphaproteobactrium from a paddy soil.	Int. J. Syst. Evol. Micribiol. [accepted]	2011
101	Venkata Raman, V., Shivali Kapoor, Shobha, E., Ramprasad, EVV & Ramana, Ch.V.	<i>Blastochloris gulmargensis</i> sp. nov., isolated from an epilithic phototrophic biofilm.	Int. J. Syst. Evol. Micribiol. [accepted]	2011
100	Rajini, K.S., Aparna, P. Sasikala, Ch. &	Microbial metabolism of pyrazines [Review]	CRC critical Reviews in Microbiol.	2011

	Ramana, Ch. V.,		(Accepted)	
99	Lakshmi, KVNS., Sasikala, Ch., Ramana, VV., Ramprasad, EVV & Ramana, Ch.V	<i>Rhodovulum phaeolacus</i> sp. nov. isolated from brown pond	J. Gen. Appl. Microbiol. (MS Accepted)	2011
98	Lakshmi, KVNS, Sasikala, Ch., Ashok Kumar, GV, Chandrasekaran, R. and Ramana, Ch.V	Phaeovibrio sulphidiphilus gen. nov. sp. nov., phototrophic alphaproteobacterium from brackish water	Int. J. Syst. Evol. Microbiol. (61: 828-833)	2011
91	Ranjith,N.K., Ramana Ch.V and Sasikala.Ch.	Rubrivi vaxin, a new cytotoxic and cyclooxygenase-1 inhibitory metabolite from <i>Rubrivivax</i> <i>benzoatilyticus</i> JA2	World. J. of microbiol. Biotechnol [DOI: 10.1007/s11274- 010-0420-9] [In press]	2010
97	Mujahid MD, Sasikala Ch, & Ramana, Ch.V	Production of indole 3-acetic acid and related indole derivatives from L-tryptophan by <i>Rubrivivax</i> <i>benzoatilyticus</i> JA2.	Appl. Microbiol. Biotechnol. 89: 1001-1008	2011
96	Venkata Ramana, V., Sasikala, Ch. & Ramana, Ch.V.	Description of <i>Ectothiorhodospira</i> <i>salini</i> sp. nov.	J. Gen. Appl. Microbiol. 56, 313-319	2010
95	Rao, M.V. S., Sasikala, Ch. Reddy, S.S.P. and Aparna, P.	Studies on the use of microorganisms to improve the strength and durability of concrete	Int. J. earth science and engineering 3, 219-223.	2010
94	Ranjith,N.K., Ramana Ch.V and Sasikala.Ch.	Production of phenols and gallate esters by <i>Rhodobacter sphaeroides</i> OU5	Current microbio. 60, 107-111.	2010
93	Ranjith,N.K., Ramana Ch.V and Sasikala.Ch.	L-Tryptophan catabolism by <i>Rubrivivax benzoatilyticus</i> occurs through indole-3-pyruvic acid pathway	Biodegradation 21, 825-32	2010
92	Reddy, S.S.P., Rao. M.V.S., Aparna.P., and Sasikala.Ch.	Performance of ordinary grade bacterial (<i>Bacillus subtilis</i>) concrete	Int. J. earth science and engineering 3, 116-124	2010

90	Rajini., Aparna.P., Sasikala, Ch. and Ramana, Ch.V.	Reductive degradation of pyrazine-2-carboxylate by a newly isolated <i>Stenotrophomonas</i> sp. Hcus	Biodegradation 21, 801-813.	2010
89	Reddy, S.S.P., Rao. M.V.S., Aparna.P., and Sasikala.Ch.	Performance of standard grade bacterial (<i>Bacillus subtilis</i>) concrete	Asian Journal of civil engg. (Building and housing) 11, 43-45.	2010
88	Mujahid., Ramana Ch.V and Sasikala.Ch.	Aniline induced tryptophan production and identification of indole derivatives from three purple bacteria	Current microbiology61, 285-290.	2010
87	Ramana, Ch.V and Sasikala, Ch.	Prokaryotic survey of India	Current science 98, 289.	2010
86	Girija, K. R., Vinay Kumar. B., Sasikala., Ch., and Ramana, Ch.V.	Novel Heliobacteria of semi arid tropical crops of India..	Ind. J. Microbiol. 50: 17-20.	2010
85	Sravan Kumar, R., Sasi Jyothsna, T.S., Sasikala, Ch., Seong, C.N., Lim, C.H., Seong C.P and Ramana., Ch.V.	<i>Shewanella fodinae</i> sp. nov., isolated from coal mine and Chilika marine lagoon of India	Int. J. Syst. Evol. Microbiol. 60, 1649-1654	2010
84	K.R.Girija, Vera Thiel., J.F.Imhoff., Sasikala, Ch., and Ramana., Ch.V.	<i>Rhodobacter johrii</i> sp. nov., a sporeforming alpha proteobacterium isolated from jowar rhizosphere.	Int. J. Syst. Evol. Microbiol. 60, 2099-2107	2010
83	Sucharita, K., Sasikala, Ch., and Ramana., Ch.V.	<i>Thiorhodococcus modestalkaliphilus</i> sp.nov., a phototrophic gammaproteobacterium isolated from Chilika salt water lagoon, India	Systematic and applied Microbiology 56, 93-99.	2010
82	Venkata Ramana.V., Sasikala., Ch., Takaichi, S., Ramana, Ch.V.	<i>Roseomonas aestuarii</i> sp. nov., a gammaproteobacterium isolated from a estuarine habitat of India	Systematic and applied Microbiology 33, 198-203.	2010
81	Sucharita, K., Shivakumar., Sasikala, Ch., Takaichi, S., and	<i>Marichromatium fluminis</i> sp.nov., a slightly alkaliphilic gammaproteobacterium isolated from Baitharini river, India.	Int. J. Syst. Evol. Microbiol. 60, 1103-1107.	2010

	Ramana., Ch.V.			
80	Ramana, Ch.V and Sasikala, Ch.	<i>Albidoferax</i> , a new genus of Comamaonadaceae and reclassification of <i>Rhodofeferax ferrireducens</i> (Finneran et al., 2003) as <i>Albidoferax ferrireucens</i> comb. Nov.	J Gen Appl Microbiol 55 , 301-304.	2009
79	Ramalingaiah, B. Reddy, M. N., Sasikala, Ch., Manohar, K.B. and Ravindra, P	Microbial production of poly(3-hydroxyalkanoate)s (PHAs) from various carbohydrates by <i>Pseudomonas</i> species ROU 9 isolated from industrial polluted soils	J Pharmacy and Chem.. 3, 71-74.	2009
78	Sucharita, K., Sasikala, Ch., Seong Chan Park, Keun Sik Baik, Chi Nam SeongCh., and Ramana, Ch.V,	<i>Shewanella chilikensis</i> sp. nov., a moderately alkaliphilic gammaproteobacterium isolated from Chilika lagoon	Int. J. Syst. Evol. Microbiol. 59 , 3111-3115	2009
77	Anil, K.P., Srinivas, T.N.R., Sasikala, Ch., and Ramana, Ch.V,	<i>Phaeospirillum chandramohanii</i> sp. nov.,	Int. J. Syst. Evol. Microbiol. 59 , 2089-2093.	2009
76	Anil Kumar, P., Srinivas, T.N.R.,Thiel, V., Marcus Tank., Sasikala, Ch., Ramana, Ch.V. and J.F. Imhoff.	A new species of <i>Thiohalocapsa marina</i> sp.nov., from an Indian marine aquaculture pond.	Int. J. Syst. Evol. Microbiol. 59 , 2333-2338	2009
75	Lakshmi, K. V. N. S., Sasikala, Ch. and Ramana, Ch.V.	<i>Rhodoplanes pokkallisoli</i> sp. nov, a phototrophic alphaproteobacterium isolated from a water logged brackish paddy soil of Kerala, India	Int. J. Syst. Evol. Microbiol. 59 , 2153-2157	2009
74	Anil, K.P., Srinivas, T.N.R., Sasikala, Ch., and Ramana, Ch.V, Suling, J and Imhoff, J.F.	<i>Prosthecochloris indica</i> sp. nov., a novel green sulfur bacterium from a marine aquaculture pond, Kakinada, India	J Gen Appl Microbiol 55 , 163-169	2009
73	Chakravarthy, S.K.,Sucharitha, K., Sasikala, Ch.	<i>Rhodovulum lacipunicei</i> sp.nov. an obligate sulfide-demanding phototrophic alphaproteobacterium	Int. J. Syst. Evol. Microbiol. 59 , 1165-1169.	2009

	and Ramana, Ch.V.	isolated from a purple pond of India.		
72	Srinivas, T. N. R., Anil Kumar, P., Sucharitha, K., Sasikala, Ch., and Ramana, Ch. V.	<i>Allochromatium phaeobacterium</i> sp. nov.	Int. J. Syst. Evol. Microbiol. 59: 750-753.	2009
71	Venkata Ramana.V., Anil Kumar, P., Srinivas, T. N. R., Sasikala., Ch., and Ramana, Ch.V.	<i>Rhodobacter aestuarii</i> sp. nov. a phototrophic alphaproteobacterium isolated from a aesturine habitat of India.	Int. J. Syst. Evol. Microbiol. 59: 1133-1136.	2009
70	Ranjith, N.K, Ramana, Ch.V Sasikala, Ch.	Purification and characterization of 3, 4- dihydroxy phenylalanine oxidative deaminase from <i>Rhodobacter sphaeroides</i> OU5.	Canadian journal of Microbiology 54, 829-834.	2008
69.	Anil Kumar, P., Aparna, P., Srinivas, T. N. R., Sasikala, Ch., and Ramana, Ch. V.	<i>Rhodospirillum sulfurexigens</i> sp. nov., a novel phototrophic alphaproteobacterium demanding reduced sulfur source for growth	Int. J. Syst. Evol. Microbiol. 58: 2917-2920: 2008	2008
68.	Anil Kumar, P., Srinivas, T. N. R., Sasikala, Ch., Ramana, Ch. V. and Imhoff, J. F.	<i>Thiophaecoccus mangrovi</i> gen. nov., sp. nov., a novel brown coloured, coccoid, phototrophophic gammaproteobacterium.	Int. J. Syst. Evol. Microbiol. 58: 2660-2664	2008
67.	Arunasri, K., Ramana.V. V., Sasikala, Ch., and Ramana, Ch.V.	<i>Rhodobacter megalophilus</i> sp. nov., a phototroph from the Indian Himalayas possessing a wide temperature range for growth	Int. J. Syst. Evol. Microbiol. 58: 1792-1796	2008
66.	Anil Kumar, P., Aparna, P., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V.	<i>Rhodovulum kholense</i> sp. nov.	Int. J. Syst. Evol. Microbiol. 58: 1723-1726	2008
65.	Venkata Ramana.V., Sasikala, Spröer, C., Ch., and Ramana, Ch.V.	<i>Rhodobacter maris</i> sp. nov., a phototrophic alphaproteobacterium isolated from a marine habitat of India	Int. J. Syst. Evol. Microbiol. 58: 1719-1722	2008
64.	Srinivas, T.N.R., Anil Kumar, P., Sasikala, Ch., Spröer, C. and	<i>Rhodobacter ovatus</i> sp. nov., a phototrophic alphaproteobacterium isolated from a polluted pond	Int. J. Syst. Evol. Microbiol. 58: 1379-1383	2008

	Ramana, Ch.V			
63.	Sasi Jyothsna, T.S., Sasikala, Ch., and Ramana, Ch.V.	<i>Desulfovibrio psychrotolerans</i> sp. nov., a novel psychrotolerant and moderately alkaliphilic sulfate-reducing deltaproteobacterium from the Himalayas of India	Int. J. Syst. Evol. Microbiol. 58: 821-825.	2008
62.	Anil Kumar, P., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V.	<i>Allochromatium renukae</i> sp. nov.	Int. J. Syst. Evol. Microbiol. 58: 404-407	2008
61	Ranjith, N.K, Sasikala, Ch. & Ramana, Ch.V.	Catabolism of L-phenylalanine and L-tyrosine by <i>Rhodobacter sphaeroides</i> OU5 occurs through 3,4-dihydroxyalanine (DOPA)	Res. Microbiol. 158: 506-511	2007
60	Chakravarthy, S.K., Srinivas, T.N.R., Anil Kumar, P., Sasikala, Ch. and Ramana, Ch.V.	<i>Roseospira visakhapatnamensis</i> sp. nov. and <i>Roseospira goensis</i> sp. nov.	Int. J. Syst. Evol. Microbiol. 57: 2453-2457	2007
59	Anil Kumar, P., Sasi Jyothsna., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V. and Imhoff, J.F	Two novel species of marine phototrophic <i>Gammaproteobacteria</i> : <i>Thiorhodococcus bheemlicus</i> sp. nov. and <i>Thiorhodococcus kakinadensis</i> sp. nov.	Int. J. Syst. Evol. Microbiol. 57: 2458-2461	2007
58	Ranjith, N.K., Sasikala, Ch., and Ramana, Ch.V.	Rhodethrin: a novel indole terpenoid ether produced by <i>Rhodobacter sphaeroides</i> OU5 has cytotoxic and phytohormonal activities	Biotechnol. Lett. 29: 1399-1402	2007
57	Usha, P., Sasikala, Ch., and Ramana, Ch.	Photoassimilation of trans-cinnamate by <i>Rhodobacter sphaeroides</i> OU5	Curr. Microbiol. 54, 410-413	2007
56	Anil Kumar, P., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V.	<i>Rhodobacter changlensis</i> sp. nov., a psychrotolerant, phototrophic <i>Alphaproteobacteria</i> from the Himalayas of India	Int. J. Syst. Evol. Microbiol. 57: 2568-2571	2007
55	Anil Kumar, P., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V.	<i>Halochromatium roseum</i> sp. nov., a novel non-motile phototrophic gammaproteobacterium with gas vesicles and emended description of the genus <i>Halochromatium</i> .	Int. J. Syst. Evol. Microbiol. 57: 2110-2113	2007

54	Srinivas, T.N.R., Anil Kumar, P., Sasikala, Ch., Ramana, Ch.V. and Imhoff, J.F	Rhodobacter vinaykumarii sp. nov., a phototrophic Alphaproteobacterium from tidal waters, and emended description of the genus Rhodobacter	Int. J. Syst. Evol. Microbiol. 57: 2062-2066	2007
53.	Anil Kumar, P., Srinivas, T.N.R., Sasikala, Ch., Ramana, Ch.V. and Imhoff, J.F	Rhodovulum visakapatnamense sp. nov.	Int. J. Syst. Evol. Microbiol. 57: 1762-1764	2007
52.	Anil Kumar, P., T.S. Sasi Jyothsna, T.N.R. Srinivas, Sasikala, Ch., Ramana, Ch.V. and Imhoff, J.F	<i>Marichromatium bhemlicum</i> sp. nov., a non-diazotrophic, photosynthetic gammaproteobacterium from a marine aquaculture pond	Int. J. Syst. Evol. Microbiol. 57: 1261-1265	2007
51.	Srinivas, T.N.R., Anil Kumar, P., Sasikala, Ch., Ramana, Ch.V.	<i>Rhodobium gokarnense</i> sp. nov., a novel phototrophic alphaproteobacterium from a saltern	Int. J. Syst. Evol. Microbiol. 57: 932-935	2007
50	Srinivas, T.N.R., Anil Kumar, P., Sasikala, Ch., Ramana, Ch.V.	<i>Rhodovulum imhoffii</i> sp. nov.,	Int. J. Syst. Evol. Microbiol. 57: 228-232	2007
49	Anil, K.P., Sasikala, Ch., and Ramana, Ch.V, Suling, J and Imhoff, J.F.	Selective enrichment of green sulfur bacteria in the presence of 4-aminobenzenesulfonate (sulfAnilate)	World J Microbiol. Biotechnol. 23: 393-399	2007
48	Ramana. V, Ch., Sasikala, Ch., Arunasri, K. , Süling. J and Imhoff. J.F	<i>Rubrivivax benzoatilyticus</i> , sp nov., an aromatic hydrocarbon degrading betaproteobacterium isolated from paddy soil	Int. J. Syst. Evol., Microbiol. 56, 2157-2164	2006
47	Ramana. V, Ch., Sasikala, Ch., Arunasri, K. , Srinivas, T.N.R., Ani Kumar, P., Shivaji, S., Süling. J and Imhoff. J.F	<i>Rubrivivax bezoatilyticus</i> , sp nov., an aromatic hydrocarbon degrading betaproteobacterium isolated from paddy soil	Int. J. Syst. Evol., Microbiol. 56, 2157-2164	2006

46	Srinivas, T.N.R., Ani Kumar, P., Sasikala, Ch., Ramana, Ch.V., Suling, J and Imhoff, J.F	<i>Rhodovulum marinum</i> sp. nov., a new phototrophic purple nonsulfur proteobacterium from marine tides of Visakhapatnam, India	Int. J. Syst. Evo. Microbiol. 56: 1651-1656	2006
45	Vijay, S, Sunayana, M. R, Ranjith, N. K, Sasikala, Ch. and Ramana, Ch.V	Light-dependent transformation of aniline to indole esters by the purple bacterium, <i>Rhodobacter</i> <i>sphaeroides</i> , OU5.	Curr. Microbiol. 52, 413-417.	2006
44	Arunasri, K. , Anil, K.P., Srinivas, T.N.R., Sasikala, Ch., and Ramana, Ch.V	Phototrophic proteobacteria: Diversity and biotechnological potentials	Microbial Diversity Current perspectives and potential applications. 917-932.	2005
43	Sunayana, T., Sasikala, Ch. and Ramana, Ch.V	Rhodestrin: A novel indole terpenoid phytohormones from <i>Rhodobacter sphaeroides</i> OU5.	Biotechnol. Letters: 27: 1897- 1900	2005
42	Sunayana, M.R., Sasikala, Ch. and Ramana, Ch	Production of a novel indole ester from 2-amino benzoate by <i>Rhodobacter sphaeroides</i> OU5	J. Industrial Microbiol. Biotechnol. 32:41-45	2005
41	Ramana. V, Ch., Sasikala, Ch., Arunasri, K. , Suling, J and Imhoff, J.F	<i>Marichromatium indicum</i> sp. nov. a new purple sulfur <i>Gammaproteobacterium</i> from mangrove soil of Goa, India.	Int. J. Syst. Evol. Microbiol. 55:673-679.	2005
40	Archana, A., Sasikala, Ch., Ramana, Ch.V and Arunasri, K	Paraffin wax-overlay of pour plate , a method for the isolation and enumeration of purple non- sulfur bacteria.	J Microbiol. Methods 59, 423-425	2004
39	Archana, A., Sasikala, Ch. and Ramana, Ch.V	Augmentation of H ₂ photoproduction in <i>Rhodospirillum rubrum</i> JA1 by N-heterocyclic aromatic compounds.	Biotechnol. Lett. 25(1), 79-82.	2003
38	Ramana, Ch. V. and Sasikala, Ch.	Light dependent reductive degradation of nitrobenzene by <i>Rhodospirillum rubrum</i> .	Ind. J. Microbiol. 42, 229-232.	2002
37	Ch. Sasikala, A. Archana and	Occurrence of anoxygenic phototrophic bacteria in some	Indian J. Microbiol. 42,	2002

	Ch. V. Ramana	paddy fields of Andhra Pradesh, India.	169-171.	
36	Ch. Sasikala, K. Arunasri and Ch. V. Ramana	Photobiodegradation of pyridine by <i>Rhodopseudomonas palustris</i> JA1	Indian J Experimental Biol. 40: 967-970.	2002
35	N. Rajasekhar, Ch. Sasikala and Ch. V. Ramana	Toxicity of N-containing heterocyclic aromatic compounds and their utilization for growth by a few purple non-sulfur bacteria.	Bull. Environ. Contamination & Toxicology 65, 375-382.	2000
34	Nanda Devi, Ch. Sasikala and Ch. V. Ramana	Light-dependent transformation of anthranilate to indole by <i>Rhodobacter sphaeroides</i> OU5	.J. Industrial Microbiol. Biotechnol. 24, 219-221.	2000
33	Ch. Sasikala and Ch. V. Ramana	Hydrogen metabolizing microorganisms and their role in soil fertility.	Current Trends in Life Sciences Vol. 23, pp. 281-290, TTP Publishers, New Delhi, India.	1999
32	Ch. Sasikala and Ch. V. Ramana	Anoxygenic phototrophic bacteria and their role in soil nutritional cycles.	Current Trends in Life Sciences Vol. 23 pp. 219-234, TTP Publishers, New Delhi, India.	1999
31	N. Rajasekhar, Ch. Sasikala and Ch. V. Ramana	Photoproduction of L-tryptophan from indole and glycine by <i>Rhodobacter sphaeroides</i> OU5.	Biotechnol. Appl. Biochem. 30, 209-212.	1999
30	N. Rajasekhar, Ch. Sasikala and Ch. V. Ramana	Photoproduction of indole-3-acetic acid by <i>Rhodobacter sphaeroides</i> from indole and glycine.	Biotechnol. Lett. 21, 543-545.	1999
29	N. Rajasekhar, Ch. Sasikala and Ch. V. Ramana	Photometabolism of indole by purple non-sulfur bacteria.	Indian J. Microbiol. 39, 39-44.	1999
28	N.R. Uma and Ch. Sasikala.	Effect of plant growth promoters on the growth and nitrogenase activity of <i>Rhodobacter sphaeroides</i> .	Proc. Nat. Acad. Sci. India 68(B) III&IV, 295-299.	1998
27	N. Rajasekhar, Ch. Sasikala and Ch. V. Ramana	Photobiotransformation of indole to its value-added derivatives by <i>Rhodobacter sphaeroides</i> OU5	J. Industrial Microbiol. Biotechnol. 20, 177-179.	1998
26	Ch. Sasikala and Ch. V. Ramana	Biodegradation and metabolism of unusual carbon compounds by	Adv. Microbiol. Physiol. 39, 339-	1998

		anoxygenic phototrophic bacteria.	377.	
25	A.V. Chalam, Ch. Sasikala, Ch.V. Ramana, N.R. Uma and P. Raghuvver Rao	Effect of pesticides on the diazotrophic growth and nitrogenase activity of purple non-sulfur bacteria.	Bull. Environ. Cont. Toxicol. 53, 463-468.	1996
24	Ch. Sasikala, Ch.V. Ramana, P. Raghuvver Rao and L.V. Venkataraman	Hydrogen production through bioroutes: A Perspective.	Proc. Nat. Acad. Aci. India LXVI(B), 1-20.	1996
23	Ch. Sasikala and Ch.V. Ramana	Biodegradable polyesters.	Adv. Applied Microbiol. 42, 97-218.	1996
22	A.V. Chalam, Ch. Sasikala, Ch.V. Ramana and P. Raghuvver Rao	Effect of pesticides on nitrogenase, photoproduction of hydrogen and hydrogenase activities of purple non-sulfur bacteria.	FEMS Microbiol. Ecol. 19, 1-4.	1996
21	Ch. Sasikala, Ch.V. Ramana and P. Raghuvver Rao	Regulation of simultaneous hydrogen photoproduction during growth by glutamate and pH in <i>Rhodobacter sphaeroides</i> .	Int. J. Hydrogen Energy 20, 123-126.	1995
20	Ch. Sasikala, Ch.V. Ramana, A.V. Chalam, K. Jayasri and P. Raghuvver Rao	A survey of purple non-sulfur anoxygenic phototrophic bacteria from industrial effluents	Indian J Exptl. Biol. 33, 136-138.	1995
19	Ch. Sasikala and Ch. V. Ramana	Biotechnological potentials of anoxygenic phototrophic bacteria. 1. Production of single cell protein, vitamins, enzymes and use in waste treatment.	Adv. Applied Microbiol. 41, 173-226.	1995
18	Ch. Sasikala and Ch.V. Ramana	Biotechnological potentials of anoxygenic phototrophic bacteria. 2. Biopolyester, bioplastic, biofuel and use as biofertilizer.	Adv. Applied Microbiol. 41, 227-278.	1995
17	Ch. Sasikala and Ch.V. Ramana	Variations among few Indian isolates of <i>Rhodobacter sphaeroides</i>	Proc. Nat. Acad. Sci. India 65B IV, 437-441	1995
16	Ch. Sasikala, Ch.V. Ramana and G.S. Prasad.	Production of hydrogen by mixed cultures.	World J. Microbiol. Biotechnol. 10, 221-223.	1994

15	Ch. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Photometabolism of heterocyclic aromatic compounds by <i>Rhodopseudomonas palustris</i> .	Appl. Environ. Microbiol. 60, 2187-2190.	1994
14	Ch. Sasikala and Ch. V. Ramana	Growth and hydrogen production by <i>Synechococcus</i> spp using organic/inorganic electron donors.	World J. Microbiol. Biotechnol. 10,	1994
13	Ch. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Nitrogen fixation by <i>Rhodopseudomonas palustris</i> OU11 with aromatic compounds as carbon source/electron donors.	FEMS Microbiol. Lett. 122, 75-78.	1994
12	Ch. Sasikala, Ch.V. Ramana and P. Raghuv Rao	5-Aminolevulinic acid : A potential herbicide/insecticide from microorganisms.	Biotechnology Progress 10, 123-126	1994
11	K. Sasikala, Ch.V. Ramana, P. Raghuv Rao and K.L. Kovacs	Anoxygenic phototrophic bacteria : Physiology and advances in hydrogen production technology.	Adv. Appl. Microbiol. 38, 211-295.	1993
10	K. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Photoproduction of hydrogen from waste waters of a distillery by <i>Rhodobacter sphaeroides</i> OU 001.	Int. J. Hydrogen Energy 17, 23-27.	1992
09	K. Sasikala, Ch.V. Ramana and M. Subrahmanyam	Photoproduction of hydrogen from waste water of a lactic acid fermentation plant by a purple non-sulfur photosynthetic bacterium <i>Rhodobacter sphaeroides</i> .	Ind. J. Experimental Biol. 29, 74-75.	1991
08	K. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Photoproduction of hydrogen by photosynthetic purple non-sulfur bacteria : 2. Nitrogen fixation and hydrogen metabolism of <i>Rhodobacter sphaeroides</i> OU 001.	Proc. Ind. Natn. Acad. Sci. B57, 153-157.	1991
07	K. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Environmental regulation for optimal biomass yield and photoproduction of hydrogen by <i>Rhodobacter sphaeroides</i> OU 001.	Int. J. Hydrogen Energy 16, 597-601.	1991
06	K. Sasikala, Ch.V. Ramana, P. Raghuv Rao and M. Subrahmanyam	Photoproduction of hydrogen, nitrogenase and hydrogenase activities of free and immobilized whole cells of <i>Rhodobacter sphaeroides</i> OU 001.	FEMS Microbiol. Lett. 72, 23-28.	1990
05	K. Sasikala, Ch.V. Ramana and P. Raghuv Rao	Effect of gas phase on the photoproduction of hydrogen and substrate conversion efficiency in the photosynthetic bacterium	Int. J. Hydrogen Energy 15, 795-797.	1990

		<i>Rhodobacter sphaeroides</i> OU001.		
04	K. Sasikala and Ch.V. Ramana	Photoproduction of hydrogen by photosynthetic purple non-sulfur bacteria : 1. Isolation, characterization, identification and growth of <i>Rhodobacter sphaeroides</i> OU 001.	Proc. Ind. Natn. Acad. Sci. B56, 235-240.	1990
03	K. Sasikala and Ch.V. Ramana	Ammonia leaching by resting cells of a photosynthetic purple non-sulfur bacterium, <i>Rhodobacter sphaeroides</i> OU 001.	J. Indian Inst. Sci. 70, 447-450.	1990
02	Ch.V. Ramana, K. Sasikala, P. Raghuvveer Rao and M. Subrahmanyam	Hydrogen formation by cyanobacteria. I. Screening cyanobacteria for hydrogen production.	Proc. Ind. Natn. Acad. Sci. B56, 361-366.	1990
01	B.R. Renuka, M. Vinayakumar, Ch. V. Ramana, Ch. Shraavan Kumar, R. Lakshmi and K. Sasikala	Photoproduction of hydrogen from photosynthetic microbes.	Proceedings of Bio-Energy Society India, Forth Convention and Symposium , 1987, pp. 273-275.	1988