

PROFORMA FOR BIO-DATA (to be uploaded)

1. Name and full correspondence address : Dr. K. Sreekumar,
: Professor,
: Department of Applied Chemistry,
: Cochin University of Science and
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3. Institution : Cochin University of
Science and Technology, Kochi-22
Kerala

4. Date of Birth : 02/06/1962

5. Gender (M/F/T) : M

6. Category Gen/SC/ST/OBC : Gen

7. Whether differently abled (Yes/No) : NO

8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of marks
1	B.Sc.	1982	Chemistry	University of Kerala	79
2	M.Sc.	1984	Chemistry	University of Kerala	69
3	Ph.D.	1989	Polymer Chemistry	M.G. University	

9. Ph.D thesis title : Polymeric Analogues of t-Butyl Hypohalites as Solid –Phase
Organic Reagents

Guide's Name : Prof. V. N Rajasekharan Pillai

Institute/Organization/University : M.G. University, Kottayam ,Kerala

Year of Award :1989

10. Work experience (in chronological order).

S.No.	Positions held	Name of the institute	From	To	Pay scale
1	Post-doctoral research fellow (CSIR-RA)	School of Chemical Sciences, M. G. University, Kottayam	February 1989	December 1989	2200-4000
2	Lecturer	Kerala University, Trivandrum	December 1989	December 1998	2200-4000 3000-4500
3	Reader	Kerala University, Trivandrum	December 1998	November 1999	12000-18700
4	Reader	Department of Applied Chemistry, CUSAT, Kochi	November 1999	December 2006	12000-18700
5	Professor	Department of Applied Chemistry, CUSAT, Kochi	December 2006	Till date	37400-67000

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No	Name of Award	Awarding Agency	Year

12. Publications (*List of papers published in SCI Journals, in year wise descending order*).

Sl. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	N. Sona, P.R. Sreejesh, M. Sebastian, M.V. Mahesh Kumar, K.	Synthesis and third order nonlinear optical properties of low band gap 3,4-ethylene dioxythiophene – quinoxaline	European Polymer Journal			Accepted

	Sreekumar, C. Sudha Kartha, Rani Joseph	copolymers				
2.	N. Sona, P.R. Sreejesh, M. Sebastian, M.V. Mahesh Kumar, K. Sreekumar, C. Sudha Kartha, Rani Joseph	Theoretical and Experimental Investigations on the Photoconductivity and Nonlinear Optical properties of Donor-Acceptor π Conjugated Copolymer, Poly(2,5-(3,4-ethylene dioxythiophene)-alt-2,7-(9,9-dioctylfluorene))	RSC Advances	In Press (2015)		
3	K. Mangala , K. Sreekumar	Dendrimer functionalized polysilane: an efficient and recyclable organocatalyst	Journal of Applied Polymer science	132	DOI: 10100 2/app. 41593	2015
4	G. Rajesh Krishnan, K. Sreekumar	Synthesis of on resin poly(propyleneimine) dendimer and its use as organocatalyst	Tetrahedron Letters	55	2352	2014
5	G. Rajesh Krishnan, K. Sree Niveditha , K. Sreekumar	Aminated poly(vinyl chloride): An efficient green catalyst for Knoevenagel condensation reaction	Indian Journal of Chemistry	52B	428	2013
6	V. Kannan, K. Sreekumar	Clay supported titanium catalyst for the solvent free synthesis of tetra substituted imidazoles and benzimidazoles	Journal of Molecular Catalysis A: Chemical	376	34	2013
7	K. Mangala, K. Sreekumar	Synthesis and application of polycarbosilane supported manganese ions as catalyst in mannich reaction	Journal of Applied Polymer Science	127	717	2013

8	K. Mangala, K. Sreekumar	Polycarbosilane-supported titanium (IV) catalyst for Knoevenagel condensation reaction	Applied Organometallic Chemistry	27	73	2013
9	G. Rajesh Krishnan, K. Sapna Kajal, K. Sreekumar	Synthesis of β -amino alcohols catalyzed by poly(vinyl chloride)-supported Schiff's base metal complexes	Monatshefte fuer Chemie/Chemical Monthly	143	637	2012
10	K. P. Nimmi, V. Pramitha, K. Sreekumar, C. Sudha Kartha, Rani Joseph	Effect of Concentration of dye on the Storage Life of Plane Wave Gratings on Photopolymer Film	Journal of Applied Polymer Science	125	1238	2012
11	M. R. Rajesh, M. V. Mahesh Kumar, K. Sreekumar, C. Sudha Kartha, K. P. Vijayakumar	Spray pyrolyzed In_2S_3 thin films: A potential electron selective layer for large area inverted bulk-heterojunction polymer solar cell	Physica Status Solidi A: Applications and Materials Science	209	199	2012
12	C.V. Elizabeth, K. Sreekumar	Theoretical and experimental studies of chiral polyurethanes	Journal of Polymer Research	19	1	2012
13	V. Kannan , K. Sreekumar , A . Gil M. A. Vicente	Acetalation of Pentaerithritol Catalyzed by an Al-Pillared Saponite	Catalysis Letters	141	1118	2011
14	V.Pramitha, Rani Joseph, K. Sreekumar, C.Sudha Kartha	Investigation on the panchromaticity of silver-doped poly(vinyl alcohol)/acrylamide photopolymer	Applied Optics	50	2886	2011
15	C.V. Elizabeth,	Hyperpolarizability studies of	Bulletin of Materials	34	893	2011

	K. Sreekumar	some nonconjugated twin donor-acceptor molecules	Science			
16	C.V. Elizabeth, K. Sreekumar	Optical and thermal properties of diethyl-(2R, 3R) (+)-tartrate based chiral polyurethanes with main chain amidochromophores	Journal of Applied Polymer Science	119	111	2011
17	C S Rajesh S S Sreeroop V Pramitha Rani Joseph K Sreekumar C Sudha Kartha	Study on the performance of eosin-doped poly(vinyl alcohol)/acrylamide photopolymer films for holographic recording using 488-nm wavelength	Optical Engineering	50	5802	2011
18	G. Rajesh Krishnan, K. Sreekumar	Synthesis and characterization of catalytically active polystyrene supported poly (amidoamine) Dendrimer-palladium nanoparticle conjugates	Soft Materials	8	114	2010
19	C.V. Elizabeth, K. Sreekumar	Isosorbide based chiral polyurethanes: optical and thermal studies	Journal of Material Science	45	1912	2010
20	V. Pramitha Rani Joseph K. Sreekumar C. Sudha Kartha	Recording multiple holographic gratings in silver-doped photopolymer using peristrophic multiplexing	Pramana	75	1241	2010
21	M. R. Rajesh, M.V.Maheshkumar K. Sreekumar, C. Sudha Kartha, K. P. Vijayakumar	Inverted polymer solar cells with indiumsulfide electron selective layer	Solar Energy Materials& Solar Cells	94	2212	2010
22	V .Pramitha ,	Peristrophic multiplexing	Journal of Modern	57	908	2010

	Rani Joseph, K. Sreekumar, C. Sudha Kartha	studies in silver doped photopolymer film	Optics			
23	V. Pramitha, K. P.Nimmi, N. V.Subramanyan, Rani Joseph, K. Sreekumar C. Sudha Kartha	Silver-doped photopolymer media for holographic recording	Applied Optics	48	2255	2009
24	R. Dhanya V. C. Kishore K. Sreekumar C. Sudha Kartha Rani Joseph	Photophysical and Electrochemical Investigations on Photoconducting Poly(6-tert- butyl-3,4-dihydro-2H-1,3- benzoxazine)	Macromolecular Symposia	277	112	2009
25	Beena Mary John, Rani Joseph, K. Sreekumar, C. Sudha Kartha	Effect of Chromium doping on the diffraction efficiency of methylene blue sensitized PVA /acrylamide films	J. Mater. Sci. Mater Electron	20	216	2009
26	K Sudheesh Kumar, K Sreekumar	Synthesis and properties of polyurethanes of hexamethylene diisocyanate with multifunctional chromophores in the main chain	Int. J. of Polymeric Materials	58	160	2009
27	G. Rajesh Krishnan, K. Sreekumar	Polystyrene supported poly (amidoamine) dendrimer- Mn complexes; synthesis, characterization and catalysis	Applied Catalysis A: General	353	80	2009
28	G. Rajesh Krishnan, R. Sreerexha, K. Sreekumar	Three component Mannich reaction and benzodiazepine synthesis catalyzed by a tetranitrile-silver complex	Letters in Organic Chemistry	6	17	2009

29	G. Rajesh Krishnan, Jinimol Thomas, K. Sreekumar	Organocatalysis by poly (amidoamine) dendrimers; Knoevenagel and Mannich reactions catalyzed in water	ARKIVOC, ex	2009	106	2009
30	G. Rajesh Krishnan K Sreekumar	First Example of Organocatalysis by Polystyrene-Supported PAMAM Dendrimers: Highly Efficient and Reusable Catalyst for Knoevenagel Condensations	European Journal of Organic Chemistry	2008	4763	2008
31	R. Dhanya, V. C. Kishore, Rani Joseph, C. Sudha Kartha, K. Sreekumar	Ground state and excited state dipole moments of alkyl substituted p-Nitroaniline derivatives	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	71	1355	2008
32	R. Dhanya, V. C. Kishore, K. Sreekumar, Rani Joseph and C. Sudha Kartha	Spectral distribution of photocurrent in poly (6-tert- butyl-3-methyl-3, 4-dihydro- 2H-1, 3-benzoxazine)	Synthetic Metals	158	676	2008
33	Beena Mary John Rani Joseph K. Sreekumar C. Sudha Kartha	Effect of chromium doping on the diffraction efficiency of methylene blue sensitized PVA/acrylamide films	Journal of Materials Science, Materials in Electronics	20	216	2008
34	G. Rajesh Krishnan K. Sreekumar	Ring opening of epoxides catalyzed by poly (amidoamine) dendrimers supported on cross linked polystyrene	Polymer	49	5233	2008

35	V C Kishore R Dhanya K Sreekumar Rani Joseph C Sudha Kartha	The dipole moments and first-order hyperpolarizability of N,N-bis(4-bromobutyl)-4-nitrobenzenamine.	Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy	70	1227	2007
36	V C Kishore R Dhanya K Sreekumar Rani Joseph C Sudha Kartha	Photoconductivity in molecularly doped poly(methylmethacrylate) sandwich cells	Journal of Applied Physics	105	06310 2	2007
37	Beena Mary John M Ushamani K Sreekumar Rani Joseph C Sudha Kartha	Enhancement of diffraction efficiency and storage life of poly(vinyl chloride)-based optical recording medium with incorporation of an electron donor.	Applied Optics	46	346	2007
38	Beena Mary John Rani Joseph K. Sreekumar C. Sudha Kartha	Copper Doped Methylene Blue Sensitized Poly(vinyl alcohol)-Acrylamide Films for Stable Diffraction Efficiency	Japanese Journal of Applied Physics	45	8686	2006
39	M. S. Sheela, K. Sreekumar	Oxidation and Epoxidation Reactions Using Polystyrene Supported t- butyl hydroperoxides	Indian J. Chem. B,	45B	943	2006
40	M. V. Mahesh Kumar, M. J. Joseph, K. Sreekumar, H.G. Ang	Synthesis and characterization of poly BAMO suitable for binder application	Chinese Journal of Energetic Materials	14	411	2006
41	B. M. John, M. Ushamani, R. Joseph,	A reusable recording medium based on MBPVA and vinyl acetate	Journal of Modern Optics	53	343	2006

	K. Sreekumar, C. Sudha. Kartha					
42	K. Aiswarya Kumari K. Sreekumar	Synthesis of amides using polyacrolein-based oximino dithiobenzoic anhydrides	Journal of Chemical Sciences	107	51	2005
43	Ayan Datta, Swapan K. Pati, Daly Davis, K. Sreekumar	Odd-even oscillations in first hyperpolarizability of dipolar chromophores: Role of conformations of spacers	J. Phys. Chem. A	109	4112	2005
44	Daly Davis, K. Sreekumar, Y. Sajeev, Sourav Pal	Optimization of non-linear optical properties by substituent position, geometry and symmetry of the molecule; an ab Initio study	J. Phys. Chem. B,	109	14093	2005
45	Suni M. Mustafa Vipin A. Nair C.P. Joshua K. Sreekumar	Synthesis of 1,2,4-Triazoles and Thiazoles from Thiosemicarbazide and Its Derivatives	Mini-Reviews in Organic Chemistry	1	375	2004
46	Daly Davis, K. Sreekumar, Swapan K. Pati	Designing effective nonlinear optical materials with chiral substituents	Synthetic Metals	155	384	2005
47	M. Ushamani K. Sreekumar C. Sudha Kartha Rani Joseph	Novel methylene-blue-sensitized photopolymers for holographic recording: a comparison	SPIE Proc. Practical Holography XVIII: Materials and Applications	5290	3381	2004
48	M.Ushamani, K.Sreekumar, C. Sudha Kartha, Rani Joseph	Methylene blue doped polymers: Efficient media for optical recording	Journal of Modern Optics	51	743	2004
49	M.Ushamani, K.Sreekumar,	Fabrication and characterization of methylene	Applied Optics	43	3697	2004

	C.S.Kartha, Rani Joseph	blue doped polyvinyl alcohol- polyacrylic acid blend for holographic recording				
50	K. Y. Sandhya, C. K. S. Pillai, K. Sreekumar	New liquid crystalline poly (ester amide) s: The role of nitro group in the phase behavior	J. Polym. Sci. Polym. Phys.	42	1289	2004
51	M. S. Sheela, K. Sreekumar	Epoxidation and oxidation reactions using 1,4 butanediol dimethacrylate crosslinked polystyrene supported tertiary butyl hydroperoxide,	J. Chem. Sci.	116	319	2004
52	K. Sivadasan Chettiar, K. Sreekumar	Metal complexation on functionalised polymer supports-An adsorption/complexation phenomenon	Indian Journal of Chemical Technology	11	59	2004
53	V. A. Nair, M. M. Suni, K. Sreekumar	Catalytic studies on polymer supported metal complexes	J. Poly. Mater.	20	267	2003
54	M. Ushamani, N. G. Leenadeenja, K. Sreekumar, C. Sudha Kartha and Rani Joseph	Optimization of pH and direct imaging conditions of complexed methylene blue sensitized poly (vinyl chloride) films	Bulletin of Material Science	26	343	2003
55	K. Sivadasan Chettiyar, K. Sreekumar	Synthesis and characterization of polymer supported Schiff base metal chelates	Indian J. Chem	42A	499	2003
56	V. A. Nair, Suni M. Mustafa, K. Sreekumar	Polystyrene supported manganese complexes: heterogeneous catalysts for oxidation reactions	Journal of Polymer Research	10	267	2003
57	V. A. Nair, M. M.	Heterogenous catalysts for	Reactive &	57	33	2003

	Suni, K. Sreekumar	aromatic coupling and substitution reactions	Functional Polymers			
58	V. A. Nair, M. M. Suni, K. Sreekumar	Polystyrene linked β -diketone linked palladium complexes for olefin oxidation	Designed Monomers and Polymers	6	81	2003
59	Biju Philip, K. Sreekumar	Synthesis and characterization of chiral main chain polyesters with polar segments tailored for second harmonic generation	Journal of Materials Science	38	1573	2003
60	Biju Philip, K. Sreekumar	Second harmonic generation and polar order in thin films of polyesters	Colloid and Polymer Science	281	485	2003
61	Biju Philip, K. Sreekumar	Studies on second harmonic generation efficiency by a series of chiral polyesters	Journal of Applied Polymer Science	89	2468	2003
62	Biju Philip, K. Sreekumar	Nonlinear optical properties of chiral polyesters: A joint experimental and theoretical study	Proc. SPIE 5062, Smart Materials, Structures, and Systems	5062	987 doi: 10.1117/12.514840	2003
63	Biju Philip, K. Sreekumar	Second-harmonic response of a series of chiral polyesters: A joint experimental and theoretical study	Journal of Polymer Science Part A Polymer Chemistry	40	2868	2002
64	Biju Philip, K. Sreekumar	Synthesis and characterization of (2R, 3R)-diethyl tartrate-based chiral polyesters designed for second harmonic generation	Designed Monomers and Polymers	5	115	2002
65	K. Y. Sandhya, C. K. S. Pillai, K. Sreekuamar, K. B. R. Varma	Structural and dielectric studies on poly (I-Lithocholic acid),	J. Polym. Mater.	19	303	2002

66	M Ushamani, K Sreekumar, C Sudha Kartha, Rani Joseph	Complexed methylene-blue-sensitized polyvinyl chloride: a polymer matrix for hologram recording.	Applied Optics	41	1984	2002
67	Vipin A. Nair, M. M. Suni, K. Sreekumar	Catalytic effects of poly(methyl methacrylate)-supported β -diketone-linked palladium complexes in olefin oxidation	Journal of Chemical Sciences	114	481	2002
68	V. A. Nair, K. Sreekumar	Poly (methyl methacrylate) supported β -diketone linked metal complexes: Heterogeneous epoxidation catalysts	J. Polym. Mater	19	155	2002
69	V. A. Nair, K. Sreekumar	Catalytic activity of polymer metal complexes in oxidation reactions,	J. Polym. Mater	19	265	2002
70	Biju Philip, K. Sreekumar	Photoreactions of a polyamic acid containing 2,2'-dinitrodiphenylmethane segments at symmetrical positions in the main chain	European Polymer Journal	38	2441	2002
71	Biju Philip, K. Sreekumar	Chiral polyesters containing azobenzene groups in the main chain designed for second harmonic generation	Polymer International	50	376	2001
72	Biju Philip, K. Sreekumar	Optically active poly(ester-amide)s: synthesis and characterization	Polymer International	50	1318	2001
73	Biju Philip, K. Sreekumar	Thermal properties of some chiral polymers designed for	J. Polym. Mater	18	365	2001

		NLO studies				
74	A. Vipin , K. Sreekumar	Polystyrene supported 1,3-diketone-transition metal complexes: heterogeneous catalysts for epoxidation of olefins	Current Science	81	367	2001
75	P. N. Sophiamma, K. Sreekumar	Poly(methyl methacrylate)-supported hydroxamic dithiocarbonic anhydrides: preparation and use as acyl transfer reagents	Designed Monomers & Polymers	3	161	2000
76	K Geethakumari, K Sreekumar	Polystyrene supported t-butyl chromates: preparation and use as oxidising reagents	Reactive and Functional Polymers	42	11	1999
77	K Sivadasan Chettiar, K Sreekumar	Polystyrene-supported thiosemicarbazone–transition metal complexes: synthesis and application as heterogeneous catalysts	Polymer International	48	455	1999
78	Shiney Abraham, P. K. Rajan, K. Sreekumar	Polystyrene-based pyrazolinium permanganates: a new class of recyclable oxidizing reagents	Designed Monomers & Polymers	2	143	1999
79	S. Sumi Mitra, K. Sreekumar	Reactivity of polyacrylamide-supported polyhalide anions: effect of macromolecular structure and cross-linking	Designed Monomers & Polymers	2	153	1999
80	D. Bahulayan, K. Sreekumar	Chiral polyesters with azobenzene moieties in the main chain: synthesis and evaluation of nonlinear optical properties	Journal of Materials Chemistry	9	1453	1999

81	K. Aiswaryakumari K. Sreekumar	Hydrolysis of active esters by polymer-supported oximes: Influence of macromolecular characters	Journal of Applied Polymer Science	70	493	1998
82	K. Aiswaryakumari K. Sreekumar	Macromolecular structure and reactivity: peptide synthesis using polymeric acyl transfer reagents	Polymer International	45	255	1998
83	Shiney Abraham, P. K. Rajan, K. Sreekumar	Polystyrene supported pyrazolinium Cr(VI) reagents: preparation and use in synthetic organic chemistry	Polymer International	45	271	1998
84	K. Geethakumari K Sreekumar	Polystyrene supported t -butyl chromates: Effect of the degree of crosslinking on reactivity	Journal of Chemical Sciences	110	499	1998
85	K. Geethakumari K. Sreekumar	Reactivity of t-butyl chromate resins with substituted phenylethanols: A kinetic study	Journal of Applied Polymer Science	67	799	1998
86	P. N. Sophiamma K. Sreekumar	Polymer-bound hydroxamic dithiobenzoic anhydride: a new heterogeneous photoinitiator	Polymer International	45	157	1998
87	K. Geethakumari K. Sreekumar	Polyacenaphthylene supported t-butyl chromates: a new class of solid phase oxidizing reagents	Polymer International	45	164	1998
88	Shiney Abraham P.K. Rajan K. Sreekumar	Polymeric analog of isoxazolinium permanganate: Preparation and use as synthetic reagent	Journal of Applied Polymer Science	65	1169	1998
89	K. Aiswaryakumari	Synthesis of peptides using	Polymer	45	255	1998

	K. Sreekumar,	polymeric acyl transfer reagents	International			
90	S. Sumi Mitra, K. Sreekumar,	Poly [N-2-aminoethyl] acrylamido] triethylammonium polyhalides : Preparation and use as recyclable oxidising reagents	Eur. Polym. J.	34	561	1998
91	K. Geethakumari K. Sreekumar	1,4-Butanediol dimethacrylate crosslinked polyacenaphthylene supported t-butylchromate as a new class of solid phase oxidising reagent	Indian J. Chem.	37B	331	1998
92	S. Sumi Mitra K. Sreekumar	Polymer-bound benzyltriethylammonium polyhalides: recyclable reagents for the selective iodination of amines and phenols	Reactive and Functional Polymers	32	281	1997
93	S. Sumi Mitra K. Sreekumar	Polymer supported reagents containing pendant quaternary ammonium species for the α -halogenation of ketones	Polymer	38	1363	1997
94	P.N Sophiamma K Sreekumar	Polystyrene-based hydroxamic esters: preparation and application as acyl transfer reagents	Reactive and Functional Polymers	35	169	1997
95	P N Sophiamma K Sreekumar	Polystyrene-supported hydroxamic dithiocarbonic anhydrides: A new class of acyl transfer reagents	Journal of Chemical Sciences	109	49	1997

96	Shiney Abraham P. K. Rajan K. Sreekumar	Polystyrene-supported Cr(VI) reagents: a new class of recyclable oxidising reagents	Reactive and Functional Polymers	34	19	1997
97	Sumi Mitra K. Sreekumar	Polyhalide Derivatives of Polystyrene-based Benzyltriethyl ammonium Resins as Oxidizing Reagents: Synthetic and Reactivity Correlations	Polymer	42	173	1997
98	S. Sumi Mitra K. Sreekumar	Poly [N- (2-aminoethyl) acrylamido] triethylammonium polyhalide derivatives: Preparation and synthetic applications	Journal of Polymer Science Part A Polymer Chemistry	35	1413	1997
99	S Sumi Mitra, K Sreekumar	Polyhalide derivatives of poly[N-(2-aminoethyl)-acrylamido]triethylammonium resins as iodinating reagents	Macromolecular Chemistry and Physics	198	1611	1997
100	S. Sumi Mitra, K. Sreekumar	Polymeric benzyltriethylammonium dichloroiodate dibromiodate: Preparation and use as synthetic reagents	Indian J. Chem.	36B	133	1997
101	Shiney Abraham, P. K. Rajan, K. Sreekumar	Poly [methyl methacrylate] supported isoxazolinium Cr [VI] reagents as oxidising agents	Indian J. Chem.	36B	769	1997
102	P.N. Sophiamma K. Sreekumar	Synthesis of dipeptides using polymer bound hydroxamic esters: Comparative study of reactivity	Indian J. Chem.	36B	995	1997

103	Shiney Abraham, P.K. Rajan, K. Sreekumar	Poly[methyl methacrylate] supported pyrazolinium permanganate : A new oxidizing reagent	Polym. J.	29	12	1997
104	P.N. Sophiamma K. Sreekumar	Poly [methyl methacrylate] supported hydroxamic esters: new classes of acyl transfer reagents	Eur. Polym. J.	33	863	1997
105	Shiney Abraham, P.K. Rajan, K. Sreekumar	Polymeric analogue of isoxazolinium permanganate: Preparation and use as synthetic reagent	Journal of Applied Polymer Science	65	1169	1997
106	K.Aiswarya Kumari K. Sreekumar	Polymeric acyl transfer reagents: synthesis of amides using polystyrene supported oximino esters	Polymer	37	171	1996
107	K. Aiswarya Kumari K. Sreekumar	Structural features of the polymer matrix affecting the efficiency of acyl transfer reactions	Journal of Applied Polymer Science	59	2039	1996
108	D. Bahulayan Vinoy Thomas, K. Sreekumar	Nonlinear optical properties of copolyesters containing azobenzene functionality and chiral groups	Proc. SPIE Smart Materials, Structures, and MEMS doi: 10.1117/12.305577	3321	418	1996
109	K. A. Maniram, K. Sreekumar	Liquid crystalline poly(ester- amide)s containing chiral groups for second harmonic generation	Proc. SPIE Smart Materials, Structures, and MEMS doi:10.1117/12.3055 73	3321	67	1996
110	Shiney Abraham P. K. Rajan K. Sreekumar	Polystyrene-Bound Dioxirane: a New Class of Recyclable Oxidising	Polymer International	41	377	1996

		Reagent				
111	P. N. Sophiamma K. Sreekumar	Effect of polymer architecture on the efficiency of acyl transfer reactions	Journal of Applied Polymer Science	62	1753	1996
112	Shiney Abraham, P.K. Rajan, K. Sreekumar,	Poly[methyl methacrylate] supported Cr[VI] reagents : Preparation and applications	Proc. Indian Acad. Sci. [Chem. Sci.],	108	437	1996
113	Shiney Abraham, P.K Rajan, K. Sreekumar	Poly [methyl methacrylate] supported isoxazolinium permanganates: Preparation and application as oxidising reagents	Macromolecular Chemistry and Physics	197	3455	1996
114	K.Aiswarya Kumari P.B. Sherlymole K. Sreekumar	Polystyrene supported oximino dithiocarbonic anhydrides: A new class of acyl transfer reagents	European Polymer Journal	31	565	1995
115	K. Aiswarya Kumari, K. Sreekumar	Synthesis of amides using polyacrolein based oximinodithiocarbonic anhydrides	Proc. Indian Acad. Sci. [Chem. Sci.]	107	51	1995
116	K. Aiswarya Kumari, K. Sreekumar	Polyacrolein-Based Oximino Esters: Preparation and Application as Acyl Transfer Reagents	Indian Journal of Chemistry	33B	1062	1994
117	K. Sreekumar V. N. Rajasekharan Pillai	Topographical nature of the polymer matrix and reactivity of attached functional groups: Effect of crosslink density on the efficiency of solid-phase hypochlorite oxidations	Journal of Chemical Sciences	101	335	1989
118	K. Sreekumar, V.N.R. Pillai	Characteristic structural effects of crosslinked polymer supports in solid	Macromolecules	22	3303	1989

		phase hypochlorite oxidations				
119	K. Sreekumar, V.N.R. Pillai	Design and applications of a solid phase oxidising reagent consisting of a crosslinked polystyrene matrix and t-butyl hypochlorite function separated by a trimethylene spacer	Journal of Applied Polymer Science	37	2109	1989
120	K. Sreekumar V. N. Rajasekharan Pillai	Polymer-supported analogues of t-butyl hypochlorites. Preparation and applications in synthetic organic chemistry	Polymer	28	1599	1987

13. Detail of patents/ Technology transferred.

S.No	Patent Title/ Technology Transferred	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status
1	Technology to prepare polymer films for holographic application was transferred to M/s	K Sreekumar, C. Sudha Kartha, Rani Joseph, B. M. John, M. Ushamani		March 2008	Light Logics Holography and Optics Pvt. Ltd., Thiruvananthapuram	Operational

14. Books/Reports/Chapters/General articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
1	Supported and Reusable Organocatalysts- "New and Future Developments in Catalysis Hybrid Materials, Composites, and Organocatalysts".	G. Rajesh Krishnan, K. Sreekumar	Elsevier,	2013
2	Recent Trends in Polymer Supported Catalysts -"FOCUS ON CATALYSIS RESEARCH, NEW DEVELOPMENTS".	G. Rajesh Krishnan, K. Sreekumar	Nova Publishers, New York,	2012
3	Applications of Dendrimers in Catalysis- "FOCUS ON CATALYSIS	G. Rajesh Krishnan and K.	Nova Publishers, New York,	2012

15. Any other Information (maximum 500 words)

Seminar Presentations

1. Fast and convenient synthesis of low generation, high molecular weight PAMAM dendrimer, Smitha George and Dr. K. Sreekumar, National Seminar on Current Trends in Chemistry CTriC -2014, Cochin.
2. Synthesis and application of feather like Polypyrrole/Palladium nanocomposite as catalyst in benzimidazole synthesis, C. P. Anjali and Dr. K. Sreekumar, National Seminar on Polymers – Plural Thoughts over the Boons and Bans- 2014, Kanhangad.
3. Synthesis and Characterisation of conjugated D-A copolymers containing Fluorene and quinoxaline units, Jiby K. Gopinath and Dr. K. Sreekumar, National Seminar on Polymers – Plural Thoughts over the Boons and Bans- 2014, Kanhangad.
4. Titanium (IV) incorporated polyamidoamine dendritic silica hybrid catalyst in Biginelli reaction-A solvent free method, Sinija P.S and Dr. K. Sreekumar, National Seminar on Polymers – Plural Thoughts over the Boons and Bans- 2014, Kanhangad.
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11. Synthesis and characterization of energetic binders of polyphosphazenes, N.A. Anoop and K. Sreekumar, Presented at International Conference SAMPADA 2008, Pune, India Dec [2008]
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13. Synthesis and characterization of energetic binders of polyphosphazenes. N A Anoop and K. Sreekumar Presented at International Conference MACRO 2009, IIT Chennai, India [2009]
14. Characterization of a Methylene Blue sensitized Poly (vinyl alcohol)/Acrylamide Photopolymer for Holographic Data Storage, V. Pramitha, K. P. Nimmi, Rani Joseph, K. Sreekumar, C. Sudha Kartha, NLS 08, LASTEC, New Delhi, 7-10 Jan [2009]
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16. Study on the Effect of Molecular weight of Poly (vinyl alcohol) on the Properties of Photopolymer Film. K P Nimmi, V. Pramitha, Sudha Kartha C, Sreekumar K, Rani Joseph, International Conference on Materials for the Millenium MATCON [2010] January. Cochin.
 17. Design and synthesis of polymer supported dendrimer from glycidylazide polymer, Smitha George and K. Sreekumar, MATCON 2010, January [2010]
 18. Synthesis and characterization of enrgetic binders of polyphosphazenes, N A Anoop and K. Sreekumar, MATCON 2010, January [2010]
 19. Combined theoretical and experimental studies on electronic structure of benzoselenadiazole copolymer, M V Maheshkumar and K. Sreekumar, MATCON 2010, January [2010]
 20. Metal-incorporated polycarbosilane as a heterogenous catalyst in bignelli reaction, K. Mangala and K. Sreekumar, MATCON 2010, January [2010]
 21. Nonlinear optical response of chiral polyurethanes with bis (8-hydroxy quinolinazo)-2, 2''dinitrodiphenyl methane as donor acceptor system:Theoretical and Experimental evaluations, C. V. Elizabeth and K. Sreekumar, MATCON 2010, January [2010]
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Field of major scientific interest

- Polymers as aids in organic synthesis-Polymeric reagents and catalysts-Heterogenisation of homogeneous catalysts, Polymer supported dendritic

nanoparticles as catalysts. Modified clay supported transition metal complexes as heterogeneous catalysts.

- Solid phase organic synthesis- Combinatorial approach
- Photochemistry of synthetic polymers-solution phase and solid state photochemistry and photophysics of synthetic polymers-fluorescence life time and conformational studies.
- Polymers for holographic applications- Synthetic polymers with dyes doped in the matrix and polymers with pendant dye groups for permanent recording holograms-data storage and signal processing
- Polymers for optical lithography-photosensitive polymers which show differential solubility properties upon irradiation with light- for use as photoresists, polymers in micro stereo lithography and MEMS
- Polymers for optoelectronics and photonics-Conducting polymers, light emitting polymers, polymer nano composites, amplified fluorescence quenching as a method of signal transduction in sensors. Nanostructured functional polymers as chemosensors.
- Polymers containing donor-acceptor and chiral units for second harmonic generation-supramolecular chirality and helical polymers, polymeric NLO materials.
- Computational studies on quantum electro dynamical phenomena in connection with NLO properties of polymers-DFT and Ab initio calculations.
- Development of high energy density materials- synthesis, characterization and ab initio computational studies. Thermoplastic and thermoplastic elastomeric materials as high energy binders. Modified polyphosphazenes as energetic binders.