National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Brief Profile: 1-2 paragraphs (not exceeding 500 words)

1. **Name** **:** Dr. S. Kumaran

2. **Designation** **:** Associate professor

3.**Office Address** **:** Department of Metallurgical and Materials Engineering, National Institute of Technology, Trichy-620015.

4. **Telephone (Direct) (Optional):**

Telephone : **Extn (Optional):**

Mobile (Optional): +91 9944434705

5. **Email (Primary) :** kumara@nitt.edu **Email (Secondary) :** kumara_rec@yahoo.co.in

6. **Field(s) of Specialization:**

Alloy Development, Powder Metallurgy, Energy Materials

7. **Employment Profile**

Job Title	Employer	From	To
Associate Professor	National Institute Technology, Tiruchirappalli.	Nov 2011	Till date
Assistant Professor	National Institute Technology, Tiruchirappalli.	Nov 2008	Nov 2011
Lecturer	National Institute Technology, Tiruchirappalli.	Mar 2000	Nov 2008
Project Enginner-II	Hindustan Aeronautics Ltd, Bangalore.	July, 1999	Feb 2000

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
B.E. (Metallurgy)	PSG College of Technology, Coimbatore.			Metallurgy
M.E. (Industrial Metallurgy)	PSG College of Technology, Coimbatore.			Industrial Metallurgy
Ph.D. (Titanium Aluminides through Powder Metallurgy)	National Institute of Technology, Tiruchirappalli.			Titanium Aluminides through Powder Metallurgy

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Staff Advisor (MME Association)		2001 2016 (Present)	
NITFEST Staff Advisor		2011	
Warden		2001, 2010-2012	

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
DC Members	Anna University Affiliated Institutions (PSG College of Technology, Dr Mahalingam College of Tech)	2011	Till date

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2003	Young Scientist Fast Track Project.	Department of Science and Technology, New Delhi.

2005	Best Paper presentation.	11th Electrochemist Convention, Madurai.
2009	Best Poster Presentation.	MRS-I, Kolkata.

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2006	BOYSCAST Fellowship	University of Central Florida, Orlando, USA	May 2005	May 2006
2008	Visiting Scientist	MRISUS, AIST Nagoya, Japan Spark Plasma Sintering of Ti based metalloceramics)	Apr 2008	

13. Details of Academic Work

(i) Curriculum Development :

(ii) Courses taught at Postgraduate and Undergraduate levels :

Physical Metallurgy
Phase Transformation and Heat Treatment
Particulate Processing / Technology
Metallic Materials
Industrial heat Treatment
Special Steels and Cast Iron

(iii)Projects guided at Postgraduate level : 40

(iv)Other contribution(s)

Class Committee Chairman, Purchase Committee, Project Evaluation Committee

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Development of High Strength Aluminium Alloys for High Temperature Applications through	MHRD (7.00 Lakhs)	2001	2004	Completed (Three Years)

Mechanical Alloying.				
Development of High Performance Ti-Al Intermetallic Composites through Mechanical Alloying.	DRDO (25.00 Lakhs	2002	2005	Completed (Three Years)
Studies on Sintering Behaviour of Tungsten Nanocomposites prepared by Mechanical Alloying	MHRD (9.00 Lakhs)	2003	2005	Completed (Three and Half Years)
Development of Cu-Cr in-situ composites for high Strength, High Conductivity Applications by Mechanical Alloying.	DST (8.16 Lakhs)	2003	2006	Completed (Three Years)
Development of Iron based Multicomponent Bulk Metallic Glasses through Mechanical Alloying.	DST (24.64 Lakhs)	2006	2010	Completed (Three Years)
Development of Nanostructure and Bimodal Nanostructured Aluminium Alloys by Severe Plastic Deformation.	DRDO (25.85 Lakhs			Completed (Three Years)
Synthesis and Characterization of Al-Ni-Zr system by Mechanical Alloying.	Tamilnadu Government Science and Technology.	2003		Completed

Development of Iron based Multicomponent and Nano dispersed Bulk Metallic Glasses by Mechanical Alloying.	Tamilnadu Government Science and Technology.	2006		Completed
Development of Al-Si/graphite Composites by Stir Casting Method.	IE(India) (Rs. 75,000)			Completed
Development of Nano and Metastable Magnesium based Multi-component alloys through MA for Hydrogen Storage Applications.	MNRE (23.59 Lakhs)	2008		Completed (Three Years)
Development of Magnesium-Scandium Alloys and their Structure-Property Correlation.	AR &DB (DRDO) (26.292 Lakhs)	2009	2013	Completed (Three Years)
Synthesis and Characterization of Nanomaterials for Engineering Applications.	DST-Nano Mission (5.7232 Crores)	2009	2012	Completed (Three Years)
Development of Nano and Amorphous Magnesium based Multi-component alloys through MA for Energy Applications.	CSIR (15.00 Lakhs)	2011	2014	Completed (Three Years)
Development of Ti_3SiC_2 Intermetallic Compound by	DST (25.00 Lakhs)	2012	2014	Completed (Two Years)

Spark Plasma Sintering.				
Development of Magnesium - Lithium Alloy and study its structure-property.	ARDB (38.00 Lakhs)	2012	2016	Ongoing (Three Years)
Consolidation of Mechanically Alloyed Aluminium Nanocomposites by Equal Channel Angular Extrusion Pressing.	DST (39.00 Lakhs)	2012	2016	completed (Three Years)
Nanostructured TiAl Intermetallic Compounds by Spark Plasms Sintering and Their Structure-Property Correlation.	DRDO (39.00 Lakhs)	2013	2016	Ongoing (Three Years)
Development of Nanostructured SiGe thermo-electric materials by high energy ball milling and Spark Plasma Sintering.	ISRO-RESPOND (18.00 Lakhs)	2014	2017	Ongoing (Three Years)
Synthesis and characterization of SiGe thermo-electric materials by high energy ball milling and Spark Plasma Sintering.	MHRD (52.00 Lakhs)	2014		Ongoing (Three Years)
Mechano-chemical Synthesis of Nanostructured Magnesium Silicide Thermo-electric materials by Spark Plasma	CSIR (15.00 Lakhs)	2015	2018	Ongoing (Three Years)

Sintering.				
Development Nano-structured Magnesium Silicide Thermo-electric materials by Spark Plasma Sintering and Evaluation of Electric Power Generation from Thermal Systems.	DST-Nano Mission (25.00 Lakhs)	2016	2019	Ongoing (Three Years)
Development of Nano-Oxide Dispersion Strengthened Ferritic / Martensitic Steels by Spark Plasma Sintering and Study their High Temperature Properties.	DST-EMEQ (35.00 Lakhs)	2016	2020	Ongoing (Four Years)

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
PRS. Kumar	Aluminium–Fly ash Composites through Powder Metallurgy.	Co-Supervisor	
R. Mariappan	Duplex Stainless Steel through Powder Metallurgy.	Co-Supervisor	
G. Rajaram	Mechanical and Tribological Behaviour of Al-Si / Graphite Composites.	Supervisor	
M. Thirumurugan	Microstructure and Mechanical Properties of Some Magnesium Alloys.	Supervisor	
S. Kennedy	Consolidation of	Co-Supervisor	

	Nanostructured TiAl Intermetallic by Spark Plasma Sintering.		
A. X. Amal Rebin	Structure-Property Correlation of Mg-Sc alloys.	Supervisor	2016
R. Balaji	Consolidation of Nanostructured Ti-Nb-Zr alloys by Spark Plasma Sintering for Orthopedic Implant Applications.	Supervisor	2016
A. Venkateswari	Electrochemical Behaviour of Magnesium Based Multicomponent Alloys Prepared by Mechanical Alloying.	Supervisor	2016

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
2000.	Synthesis of Nanocrystalline Composites Al-Ni-Mm-Zr-O-C by Mechanical Alloying.	International		Powder Metallurgy World Congress.	Japan
Jan 31 - Feb 01, 2002	Green Behaviour of Warm Compacted Iron Powders.	National		PSG College of Technology	Coimbatore
22-23 Oct.2002	High Temperature Mechanical Behaviour of Al-	National			Thiruvananthapuram

	Li-Cu-Mg-Zr Cast Alloy.				
January 30-31, 2003.	Age Hardening Behaviour of Vacuum Hot Pressed 2121Al Control alloy and 2124Al/30 v.% SiCp Composite.	National			Goa
January 30-31, 2003.	Electrical Conductivity and Microstructural Studies on Sintered Cu-graphite-Zr Composites.	National			Goa
June 19-20, 2003.	Microstructural Development and Phase Evolution of Centrifugal Ball Milled Al-Ni-Zr Powders.	National		Regional Engineering College	Tiruchirappalli
2003.	Grain refinement and Microstructural studies of Mechanically Alloyed Al-Ni-Zr Powders.	National		PSG College of Technology	Coimbatore
January, 2004.	Effect of Cold Deformation on Age Hardening Behaviour of AZ91 Magnesium Alloy.	International			Chennai
January 21-22, 2004.	Particulate Reinforced Hybrid Aluminium Metal Matrix Composite: Microstructures and Mechanical Properties.	National			Kolkata
2005.	Nanomaterials by Mechanical	National			Madurai

	Alloying- Opportunities and Challenges.				
May, 2006.	Synthesis and Characterization of Al-Ni-Zr Powders by Mechanical Alloying.	National			Salem
December, 2006.	Formation of Nanostructure and its Stability of Mechanically Alloyed High Niobium Containing Ti-Al alloy.	International			Coimbatore
December, 2006.	Development of TiAl dispersed Aluminium/ Aluminium Composites through Powder Metallurgy.	International			Coimbatore
2007	Synthesis and Characterization of Fe-Based Multicomponent Bulk Metallic Glasses by High Energy Ball Milling.	International			Noida
27-29 August 2007.	Analysis of Stress Distribution in Equal Channel Angular Pressing of CP-Al Using ABAQUS.	International			Coimbatore
08-13, October 2007	Fabrication of AA6061 -Fly Ash Particulate Composite by P/M Techniques and Its Characterization.	International		Indian Institute of Science.	Bangalore
24-26th	Effect of Cold				Thiruvananthapuram

October 2007	and Cryo Rolling on Microstructure and Mechanical Properties of Al 6012 Alloy.				
24-25th January 2008.	Structural and Magnetic Properties of Nanocrystalline Fe57Ni21B12Si4 System Synthesized through Mechanical Alloying.			Indian Institute of Welding.	New Delhi
24-25th January 2008.	Mechanical Properties of Sintered Austeno-Ferritic Stainless Steel.			Indian Institute of Welding.	New Delhi
24-25th January 2008.	Effect of Equal Channel Angular Pressing on Microstructural and Mechanical Properties of Pure Cu, CP Al and 7075 Al Alloy.			Indian Institute of Welding.	New Delhi
24-25th January 2008.	Preparation of AA6061-Fly Ash Composites by Powder Metallurgy Technique.			Indian Institute of Welding.	New Delhi
11-13 December 2008	Formation of Nanointermetallic Compounds and their stability during Mechanical Alloying of Ti-48Al-12Nb-1Cr system.	International		Indian Institute of Technology.	Roorkee
16-18 February 2009	Preparation of Al-Si/Graphite particulate reinforced	International		Powder Metallurgy Association of India.	Goa

	composite Through Stir Casting Method and their structure property correlataion.				
16-18 February 2009	Studies on AA6061-fly ash composites produced by press and extrusion approach.	International		Powder Metallurgy Association of India.	Goa
16-18 February 2009	Influence of particulate content on mechanical properties and corrosion resistance of hot extruded Al-fly ash composites.	International		Powder Metallurgy Association of India.	Goa
16-18 February 2009	Effect of composition and sintering atmosphere on phase balance of P/M duplex stainless steels.	International		Powder Metallurgy Association of India.	Goa
16-18 February 2009	Studies on microstructure and mechanical properties of vacuum sintered stainless steels.	International		Powder Metallurgy Association of India.	Goa
28 June-03 July 2009	Mechanical Behaviour and Wear Studies of Al-Si/Graphite Particulate Reinforced Composites.	International		National University of Singapore.	Singapore
January 2010	Synthesis and Characterization of Nanostructured Mg based			Indian Institute of Technology.	Kanpur

	Multicomponent Alloys for Hydrogen Storage Applications through Mechanical Alloying.				
2010	Synthesis and Characterization of Nanostructured Mg-Ti Binary Alloys by Mechanical Alloying for Hydrogen Storage Applications.	International		PSG College of Technology.	Coimbatore
11-13 December 2012	Electrochemical Behaviour of Nanostructured Mg-Ni-Nb Alloy Synthesised by Mechanical Alloying.	International		Indian Institute of Technology.	Madras
11-13 December 2012.	Effect of Niobium on Mg67Ni33 Alloy Synthesized By Mechanical Alloying For Hydrogen Storage Application.	National		Indian Institute of Technology.	Bombay
2014	Effect of Aluminium and niobium on Mg2Ni alloy synthesized by mechanical alloying for hydrogen storage application.			Indian Institute of Space Science and Technology.	Trivandrum
23-25 January	Synthesis of Nanostructured	International		Powder Metallurgy	Chennai

2014.	Mg2NixNb intermetallic compound by high energy milling & study its electrochemical behavior.			Association of India.	
	Electrochemical Behaviour of Mg67Ni33-xNbx (x = 0, 1, 2 and 3) Alloy Synthesized by High Energy Ball Milling.				
2013	Development of Titanium/TiC-TiB hybrid composite by in-situ reaction during Spark plasma sintering.	International		Government Engineering College.	Thrissur
23-25 Jan 2014	Densification mechanism of oxide dispersion strengthened martensitic stainless steels by Spark Plasma Sintering.	International		Powder Metallurgy Association of India.	Chennai
2014	Synthesis of nano-structured martensitic ODS stainless steels by P/M route.			Indian Institute of Space Science and Technology.	Trivandrum

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
Advances in Materials, Manufacturing and Applications.	International	April 09-11 (2015)		NIT Trichy

Advanced Materials and Manufacturing Methods	National (Workshop)	June 06-08 (2016)		NIT Trichy

18. Invited Talks delivered

Topic	Date	Inviting Organization

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	PMAI (Powder Metallurgy Association of India)	
Life Member	ISTE (Indian Society for Technical Education	
Life Member	IIM (Indian Institute of Metals)	
Life Member	IWS (Indian Welding Society)	
Life Member	MRS-I (Materials Research Society of India)	

20. Academic Foreign Visits

Country	Duration of Visit	Programme
USA	1 Year	BOYSCAST Fellowship
Japan	1 month	Visiting Scientist under TEQIP

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
S. Kumaran, T. Raghu, R. Sundaresan	Characterization of Mechanically Alloyed Atomized Al-Ni-Ce-Zr Alloy System.	J.of Metallurgy and Materials Science	Vol 42 No.3	159-165	2000	
S. Premkumar, S. Kumaran, T. Srinivasa Rao	Structure-Property Correlation of Precipitation Hardened AZ91 Magnesium Alloy.	Journal of Materials Science and Technology	Vol. 20		2004	
S. Kumaran, T. Srinivasa Rao, R. Subramanian, P.C. Angelo,	Nanocrysalline and Amorphous Phase formation in the Ti-Al system during High Energy Ball Milling.	Powder Metallurgy	48 (4)	354-357	2005	
M. Nandhakumaran, S. Kumaran, B. Ravisankar, T. Srinivasa Rao	Synthesis and Characterization of Fe-Based Multicomponent Bulk Metallic Glasses by High Energy Ball Milling.	Transactions of PMAI	Vol.33	14-17	2007	
S. Kumaran, B. Chantaiah, T. Srinivasa Rao	Development of Amorphous TiAl-Nb2Al Intermetallic Nanocomposite Powders by Mechanical Alloying.	Materials Science Forum	Vols. 561-565	1429-1432	2007	
S. Kumaran, T. Sasikumar, R. Arockiakumar, T. Srinivasa Rao	Nanostructured Titanium Aluminides Prepared By	Journal of Powder Technology	185	124-130	2008	

	Mechanical Alloying And Subsequent Thermal Treatment.					
S. Kumaran, B. Chantaiah, T. Srinivasa Rao	Effect of Niobium and Aluminium additions in TiAl Prealloyed Powders during High Energy Ball Milling.	Materials Chemistry and Physics	108	97-101	2008	
R. Mariappan, S. Venu Kumar, P.R.S. Kumar, S. Kumaran, T.Srinivasa Rao	Sintered Properties of Duplex Stainless Steels in Nitrogen Atmosphere.	Transactions of PMAI	Vol.34	23-27	2008	
P.R.S. Kumar, S. Jerome, S.Kumaran, T. Srinivasa Rao	Friction Welding of Fly Ash Reinforced AA6061 (P/M) Composite and Wrought Alloy. .	. Journal of Manufacturing Engineering	3(4)	272-277	2008	
P.R.S. Kumar, S. Kumaran, T. Srinivasa Rao	Comparison study of fly ash reinforced AA6061 Composites using press-sinter-extrusion and press-extrusion approaches.	Powder Metallurgy			2009	
T.T. Saravanan, S. Kumaran, T. Srinivasa Rao	Structural Evolution and Magnetic Properties of Mechanically Alloyed Metastable Fe-Ni-Zr-B system.	Materials Letters	Vol6	780-782	2009	

R. Mariappan, S. Kumaran, T. Srinivasa Rao	Effect of sintering atmosphere on structure and properties of austeno-ferritic stainless steels.	Materials Sci. and Engg. A				
S. Kumaran, T. Srinivasa Rao	Formation of Nanointermetallic Compounds and their stability during Mechanical Alloying of Ti-48Al-12Nb-1Cr system.	J. of Advanced Materials				
P.R.S. Kumar, S. Kumaran, T. Srinivasa Rao, S. Natarajan	High temperature sliding wear behavior of press-extruded AA6061/fly ash Composite.	Materials Science and Engineering A	527	1501–1509	2010	
P. Venkatachalam, B. Ravisankar and, S. Kumaran	Microstructure and mechanical properties of 2014 Al alloy processed by equal channel angular pressing(ECAP).	Int. J. Microstructure and Materials Properties	Vol. 5	1	2010	
P.R.S. Kumar, S. Kumaran, T. Srinivasa Rao. K. Sivaprasad	Microstructure and Mechanical Properties of Fly Ash Particle reinforced AA6061 Composites Produced by Press and Extrusion.	Transactions of The Indian Institute of Metals	62 (6)	559-566	2009	
R. Mariappan, S. Kumaran, T. Srinivasa Rao, V. Muthupandi	Effect of Composition and Sintering Atmosphere on Phase Balance of P/M Duplex Stainless Steels.	Tansaction of PMAI	35	21-29	2009	

R. Mariappan, S. Kumaran, T. Srinivasa Rao, S.B. Chandrasekar	Studies on Microstructure and Mechanical properties of Vacuum Sintered Stainless Steels.	Transaction of PMAI	35	21-29	2009	
G. Rajaram, S.Kumaran, T.SrinivasaRao, M.Kamaraj	Studies on high temperature wear and its mechanism of Al–Si/graphite composite under dry sliding conditions.	Tribology International	43	2152-2158	2010	
G. Rajaram, S.Kumaran, T.Srinivasa Rao	High Temperature Tensile and Wear Behaviour of Al-Si Alloys.	Materials Science and Engineering A	528	247-253	2010	
G. Rajaram, S.Kumaran, T.Srinivasa Rao	Dry Sliding Wear Behaviour of Al-Si Alloys.	Tribology Transactions	54	115-121	2011	
S.Kennedy, S.Kumaran, T.Srinivasa Rao	Microstructure and Mechanical Properties of Microwave Sintered Austenitic Stainless Steel.	Transactions Indian Institute of Metals				
G. Rajaram, S. Kumaran, Satyam Suwas	Effect of Strain Rate on Tensile and Compression Behaviour of Al-Si /Graphite Composite.	Materials Science and Engg A				
G. Rajaram, S. Kumaran, T. Srinivasa Rao	Effect of graphite and transition elements (Cu, Ni) on high temperature tensile behaviour of Al–Si Alloys.	Materials Chemistry and Physics	128	62-69	2011	
G. Rajaram, S. Kumaran, T. Srinivasa Rao	Fabrication of Al-Si / Graphite Composites and their Structure-Property	Journal of Composite Materials				

	Correlation.					
M. Thirumurugan, S. Anka Rao, S. Kumaran, T. Srinivasa Rao	Improved ductility in ZM21 magnesium–aluminium macrocomposite produced by co-extrusion.	Journal of Materials Processing Technology	211	1637-1642	2011	
Thirumurugan, G.M. Thirugnasambandam, S. Kumaran, T. Srinivasa Rao	Microstructural Refinement and Mechanical Properties of Direct Extruded ZM21 Magnesium Alloys.					
M Thirumurugan, R Madhavan, S Kumaran, T. Srinivasa Rao, Satyam Suwas	Study of the microstructure, texture and tensile properties in asextruded AZ91 and ZM21 magnesium alloys.	Materials Science Forum	702-703	659-662	2012	
M. Thirumurugan, G. M. Thirugnasambandam, S. Kumaran, T. Srinivasa Rao	Microstructural refinement and mechanical properties of Direct extruded ZM21 magnesium alloys. 21(2011) 2154−2159	Trans. Nonferrous Met. Soc. China	21	2154-2159	2011	
M. Thirumurugan, S. Kumaran, Satyam Suwas, T. Srinivasa Rao	Effect of rolling temperature and reduction in thickness on microstructure and mechanical properties of ZM21 magnesium alloy and its subsequent annealing treatment.	Materials Science and Engineering A	528	8460-8468	2011	
M. Thirumurugan, S.	Improved	Journal of	211	1637-	2011	

Anka Rao, S. Kumaran, T. Srinivasa Rao	ductility in ZM21 magnesium–aluminium macrocomposite produced by co-extrusion.	Materials Processing Technology		1642		
G. Rajaram, S. Kumaran and T. Srinivasa Rao	Influence of graphite and copper in mechanical properties of aluminum silicon alloy.	Transactions of Indian Institute of Metals	64 (1 & 2)	53-56	2011	
M. Thirumurugan, G. M. Thirugnanasambandam, S. Kumaran, T. Srinivasa Rao	Microstructural refinement and mechanical properties of direct extruded ZM21 magnesium alloys.	Trans. Nonferrous Met. Soc. China	21	2154-2159	2011	
G. Rajaram, S. Kumaran, T. Srinivasa Rao	Tensile behaviour of Al-Si alloy and Al-Si/graphite composites at elevated temperatures.	Materials Science Forum	710	457-462	2012	
V.S.Balaji., S.Kumaran	Synthesis and Characterization of Ti /(TiB+TiC) Hybrid in-situ Composites by Spark Plasma Sintering.	Transactions Indian Institute of Metals	66	339-341	2013	
A.X.Amal Rebin and S.Kumaran	Influence of Scandium on Magnesium and its structure-property correlation.	Materials Science Forum	710	132-136	2012	
S. Kennedy, S. Kumaran, T. Srinivasa Rao	Effect of milling on Sintering behaviour of γ-TiAl by spark plasma sintering.	Materials and Manufacturing Processes	28 (8)		2013	
A.X.Amal Rebin and S.Kumaran	Some studies on extruded ZM21-x	OPJIT International	3 (1)	40-43	2014	

	Scandium magnesium alloy.	Journal of Innovation and Research				
V.S Balaji, S Kumaran	Densification and microstructural studies of titanium–boron carbide (B4C) powder mixture during spark plasma sintering.	Powder Technology	264	536-540	2014	
V.S. Balaji & S. Kumaran	Dry sliding wear behaviour of titanium-(TiB+TiC) in-situ composite developed by spark plasma sintering.	Tribology Transactions				
V.S. Balaji, S. Kumaran	Microstructural Transformation of Titanium-Boron Carbide (B4C) Powder Mixture during Spark Plasma Sintering.	Applied Mechanics and Materials	764-765	51-55	2015	
A.Venkateswari, S.Kumaran	Impact of Amorphous Structure on Mg67Ni(33-x)Nb1Alx alloy synthesized by mechanical alloying for hydrogen storage application.	International Journal of Innovation & Research	03	44-48	2014	
P. Bhagat Singh, S. Kumaran	Microstrctural Evolution and mechanical properties of α-Mg-Li alloys.	OPJIT International Journal of Innovation & Research.	03 (01)	49-51	2014	
K Vinoadh Kumar, S Kumaran, Arun Rafel	Densification mechanism in spark plasma sintering of pure	OPJIT, International Journal of Innovation	02	75-79	2014	

	vanadium powder.	and Research				
A. Venkateswari, C. Nithya, S. Kumaran	Electrochemical Behaviour of Mg67Ni(33-x)Nbx (x= 0,1,2 and 4) Alloy Synthesized by High Energy Ball Milling.	Procedia Materials Science	05	679-687	2014	
Venkateswari Ayyavu∗, Kumaran Sinnaeruvadi	Does aluminum and niobium substitution for nickel actually improve the electrochemical performance of Mg2Ni	Mater. Express	05		2015	
A. Venkateswari, S. Kumaran, C. Nithya	Can the Degree of Crystallinity of Ball Milled Mg2Ni Intermetallic Compound Decide its Electrochemical Characteristics?	Journal of Nano Research	33	137-149	2015	
S.Vigneshwaran, P.Venkatachalam, P. Rajesh, S. Kumaran and B. Ravisankar	Densification of machined CP Al chips by Equal Channel Angular Pressing (ECAP).	International Journal of Applied Engineering Research ISSN	10 (8)	6006-6010	2015	
G.Kondaiah, K.Chandra Sekhar, B.Chaitanyakrushna, B.Ravisankar and S.Kumaran	Characterization of Mechanically Alloyed Al5083 Alloy and Composite and Consolidation by Equal Channel Angular Pressing.	Applied Mechanics and Materials	764-765	23-27	2015	
G.Kondaiah, K.Chandra Sekhar, B.Chaitanyakrushna, B.Ravisankar and S.Kumaran	Densification of Al 5083 Mechanically Alloyed Powder by Equal Channel	Transactions of Indian Institute of Metals				

	Angular Pressing.					
Kondaiah Gudimetla, Ganesh Varma Jampana, S Ramesh Kumar,B Ravisankar and S Kumaran	Effect of Equal Channel Angular Pressing on Densification Behavior of Al 5083 Alloy Powder.	Materials Science Forum	830-831	63-66	2015	
Vinoadh Kumar K , Kumaran S	Rapid Synthesis of V-4Cr-4Ti Alloy/Composite by Field Assisted Sintering Technique.	International Journal of Refractory Metals and Hard Materials			2016	

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
S. Kumaran, T. Raghu, R. Sundaresan	Synthesis of Nanocrystalline Composites Al-Ni-Mm-Zr-O-C by Mechanical Alloying.	Powder Metallurgy Conference.			Japan	2000
S. Kumaran, Sajeev Kumar R. Sundaresan	Green Behaviour of Warm Compacted Iron Powders.	National Conference on Processing of Metals.			Coimbatore	2002
G. Ramani Kannan, S. Kumaran	High Temperature Mechanical Behaviour of Al-Li-Cu-Mg-Zr Cast Alloy.	Proceeding of the Conference on Light Metals and Composites for Strategic and Societal Needs.	pp143-148.		Thiruvanant hapuram	2002
S. Varalakshmi, S. Kumaran, T. Srinivasa Rao	Age Hardening Behaviour of Vacuum Hot Pressed 2121Al	29th National PM Conference.			Goa	2003

	Control alloy and 2124Al/30 v.% SiCp Composite.					
G. Paul Selvarathinam, S. Premkumar, S. Kumaran, T. Srinivasa Rao	Electrical Conductivity and Microstructural Studies on Sintered Cu-graphite-Zr Composites.	29th National PM Conference.			Goa	2003
S. Varalakshmi, S. Kumaran, T. Srinivasa Rao	Microstructural Development and Phase Evolution of Centrifugal Ball Milled Al-Ni-Zr Powders.	National Conference on Materials Processing and Failure Analysis.			Tiruchirappalli	2003
P. Chakravarthy, S. Kumaran, T. Srinivasa Rao	Grain refinement and Microstructural studies of Mechanically Alloyed Al-Ni-Zr Powders.	Proceedings of 2nd National Conf. on Quality Control in Metallurgical Industries.	pp197-202		Coimbatore	2003
R. Balaji, S. Kumaran, T. Srinivasa Rao	Effect of Cold Deformation on Age Hardening Behaviour of AZ91 Magnesium Alloy.	International Conference on Heat Treatment of Industrial Components (International Heat Treat 2004).			Chennai	2004
R. Arockiakumar, S. Kumaran, T. Srinivasa Rao	Particulate Reinforced Hybrid Aluminium Metal Matrix Composite: Microstructures and Mechanical Properties.	30th National P/M Conference and Annual Technical Meeting.			Kolkata	2004
R. Arockiakumar, S. Kumaran, T. Srinivasa Rao.	Nanomaterials by Mechanical Alloying-Opportunities and Challenges.	11th Electrochemist Convention.			Madurai	2005
P.Susila, S.	Synthesis and	National			Salem	

Kumaran, T. Srinivasa Rao	Characterization of Al-Ni-Zr Powders by Mechanical Alloying.	Conference on Recent Trends in Materials, Manufacturing and Design.				2006
S. Kumaran, T. Srinivasa Rao	Formation of Nanostructure and its Stability of Mechanically Alloyed High Niobium Containing Ti-Al alloy.	Int. Conference on Recent Advances in Materials and Processing.			Coimbatore	2006
S. Suresh kumar, M. Nandhakumaran, S. Kumaran, T. Srinivasa Rao	Development of TiAl dispersed Aluminium/ Aluminium Composites through Powder Metallurgy.	Int. Conference on Recent Advances in Materials and Processing.			Coimbatore	2006
M. Nandhakumaran, S. Kumaran, T. Srinivasa Rao	Synthesis and Characterization of Fe-Based Multicomponent Bulk Metallic Glasses by High Energy Ball Milling.	Int. Conference PM07.			Noida	2007
P. Venkatachalam, B. Ravisankar, S. Kumaran	Analysis of Stress Distribution in Equal Channel Angular Pressing of CP-Al Using ABAQUS.	Int. Conference on Modeling and Simulation.			Coimbatore	2007
Kumar PRS, Mariappan R, S. Kumaran, T. Srinivasa Rao	Fabrication of AA6061 -Fly Ash Particulate Composite by P/M Techniques and Its Characterization.	IUMRS-ICAM-2007.			Bangalore	2007
M. Venkatesan, P. Venkatachalam, B. Ravisankar, S. Kumaran	Effect of Cold and Cryo Rolling on Microstructure and Mechanical Properties of Al				Thiruvanant hapuram	2007

	6012 Alloy.					
T.T. Saravanan, G. Lakshmi Narayanan, K. Rathina Priya, S. Kumaran, T. Srinivasa Rao	Structural and Magnetic Properties of Nanocrystalline Fe57Ni21B12Si4 System Synthesized through Mechanical Alloying.	EMT-INDIA 2020.			New Delhi	2008
R. Mariappan, S. Venukumar, P R S Kumar, S. Kumaran, T. Srinivasa Rao	Mechanical Properties of Sintered Austeno-Ferritic Stainless Steel.	EMT-INDIA 2020.			New Delhi	2008
P. Venkatachalam, S. Manivannan, B. Ravisankar, S. Kumaran	Effect of Equal Channel Angular Pressing on Microstructural and Mechanical Properties of Pure Cu, CP Al and 7075 Al Alloy.	EMT-INDIA 2020.			New Delhi	2008
P R S Kumar, R. Mariappan, S. Kumaran, T. Srinivasa Rao	Preparation of AA6061-Fly Ash Composites by Powder Metallurgy Technique.	EMT-INDIA 2020.			New Delhi	2008
S. Kumaran, T. Srinivasa Rao	Formation of Nanointermetallic Compounds and their stability during Mechanical Alloying of Ti-48Al-12Nb-1Cr system.	International Conf. NADPA 2008.			Roorkee	2008
G.Rajaram, M.Thirumuruga n, S.Kumaran, T. Srinivasa Rao	Preparation of Al-Si/Graphite particulate reinforced composite Through Stir Casting Method and their	MRSI Conference.			Goa	2009

	structure property correlataion.					
P.R.S. Kumar, S. Kumaran, T. Srinivasa Rao	Studies on AA6061-fly ash composites produced by press and extrusion approach.	International Conference PM09.			Goa	2009
P.R.S. Kumar, S. Kumaran, T. Srinivasa Rao, V. Muthupandi	Influence of particulate content on mechanical properties and corrosion resistance of hot extruded Al-fly ash composites.	International Conference PM09.			Goa	2009
R. Mariappan, S. Kumaran, T. Srinivasa Rao, V. Muthupandi	Effect of composition and sintering atmosphere on phase balance of P/M duplex stainless steels.	International Conference PM09.			Goa	2009
R.Mariappan, S. Kennedy, S.B. Chandrasekhar, S. Kumaran, T. Srinivasa Rao	Studies on microstructure and mechanical properties of vacuum sintered stainless steels.	International Conference PM09.			Goa	2009
G. Rajaram, S. Kumaran, T. Srinivasa Rao	Mechanical Behaviour and Wear Studies of Al-Si/Graphite Particulate Reinforced Composites.	ICMAT-2009.			Singapore	2009
Naresh Nalajal, S.Kumaran, T.Srinivasa Rao	Synthesis and Characterization of Nanostructured Mg based Multicomponent Alloys for Hydrogen Storage				Kanpur	2010

	Applications through Mechanical Alloying.					
G. Sailaja, S. Kumaran, T. Srinivasa Rao	Synthesis and Characterization of Nanostructured Mg-Ti Binary Alloys by Mechanical Alloying for Hydrogen Storage Applications.	International Conference on Nano Materials and Applications.			Coimbatore	2010
A.Venkateswari and S. Kumaran	Electrochemical Behaviour of Nanostructured Mg-Ni-Nb Alloy Synthesised by Mechanical Alloying.	International Symposium for Research Scholars (ISRS-2010).			Madras	2012
A.Venkateswari, C.Nithya, S.Kumaran	Effect of Niobium on Mg67Ni33 Alloy Synthesized By Mechanical Alloying For Hydrogen Storage Application.	National Symposium for Research Scholars.			Bombay	2012
A.Venkateswari, S.Kumaran	Effect of Aluminium and niobium on Mg2Ni alloy synthesized by mechanical alloying for hydrogen storage application.	Research Scholars day.			Trivandrum	2014
A.Venkateswari, S.Kumaran	Synthesis of Nanostructured Mg2NixNb intermetallic compound by high energy	International Conference PM-14.			Chennai	2014

	milling & study its electrochemical behavior.					
A.Venkateswari, C.Nithya, S.Kumaran	Electrochemical Behaviour of Mg67Ni33-xNbx (x = 0, 1, 2 and 3) Alloy Synthesized by High Energy Ball Milling.	Energy Procedia.				
V.S.Balaji., S.Kumaran	Development of Titanium/TiC-TiB hybrid composite by in-situ reaction during Spark plasma sintering.	International Conference on Materials for the Future (ICMF-2013).			Thrissur	2013
K Vinoadh Kumar, S Kumaran, Arun Rafel	Densification mechanism of oxide dispersion strengthened martensitic stainless steels by Spark Plasma Sintering.	Proceedings of PM14, International conference on powder metallurgy and particulate materials + exhibition and 40th annual technical meeting.			Chennai	2014
K Vinoadh Kumar, Arun Rafel, T.M Manjunath, S Kumaran	Synthesis of nano-structured martensitic ODS stainless steels by P/M route.	Proceedings of 13th Research scholars day.			Trivandrum	2014

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