

Biodata

Name	Dr. S. Rajesh Kumar	
Designation	Scientist E	
Educational qualification	M.Sc from University of Kerala, Thiruvananthapuram Ph.D from University of Kerala, Thiruvananthapuram	
Research area	Sol-gel synthesis of nano structured materials. Ultra and nano porous membranes, photo catalytic materials, high surface area ceramic oxides, subcritical drying, silica and mixed oxide aerogels, pilot plant scale production, metallurgy of refractory metals such as hafnium, niobium and tantalum and their oxides, chlorides and carbides, wet chemical synthesis of niobates and tantalates from novel precursors, solvent extraction, carbochlorination, metallothermic reduction, Kroll reduction, vacuum refining, synthesis of ultra high pure niobium pentoxide, tellurium oxide and molybdenum oxide E-Waste management, precious metal process, spent PCB recycling, gas cleaning, lithium ion battery recycling, smelting, electrorefining	
Recognised Awards/Honors/Fellow	Nil	
Projects	a) Ongoing <ol style="list-style-type: none">1. Development, process optimization and supply of carbide derived carbon, (HD/SP- 42) Sponsored by VSSC, Chief investigator, Outlay: Rs. 37.78 lakhs, DoS: 24.12.2019; DoC: 23.12.20212. Centre of Excellence on Establishment of E Waste Management, (HD/SP-41) sponsored by MeitY, Co-Investigator, Outlay: Rs. 3580.00 lakhs DoS: 30.09.2019; DoC: 29.09.20243. Environmentally Sound Methods for Recovery of Metals from Printed Circuit Boards – Phase II”, (HD/SP-32) sponsored by MeitY, Chief investigator, Outlay: Rs. 1126.80 lakhs DoS: 14.08.2014; DoC: 31.12.2020 b) Completed <ol style="list-style-type: none">1. Production and supply of space grade hafnium sponge (HD/TS-01), Sponsored by VSSC, Project Co-investigator, Total Outlay : countinuous supply, Part of the project until 2017	

	<ol style="list-style-type: none"> 2. Establishment of extended pilot plant for 320 kg hafnium/annum, HD/SP-022, Sponsored by VSSC, Project Co-investigatr, Outlay: 2600 lakhs, DoS: 01.2010; DoC: .06.2016 3. Pre production studies of niobium and hafnium for space applications, (HD/SP-18) Sponsred by VSSC, Project Co-investigator, Outlay: 155 lakhs, DoS: 11..2006; DoC: .20.2010 4. Development of Niobium powder for capacitor applications as an alternative to tantalum, (HD/SP-12), Sponsored by DST, Chief Investigator, Out lay: 22.75 lakhs, DoS: 14.03.2005; DoC: 13.0.3.2008. 5. Preparation and supply of high purity niobium pentoxide through hydrometallurgy route for Materials Processing Division of BARC (HD/SP-009), Sponsored by BRNS, Chief Investigator, Out lay: 12.00 lakhs, DoS: 4.01.2005; DoC: 4.1.2007. 6. Development of Niobium and Hafnium powder for the preparation of NIOBHAT 101 alloy strips for Space applications --- Feasibility study at bench scale level, (HD/SP-05) Project Co- investigator, Outlay: 25.00 lakhs, DoS: 1.2004; DoC: .7.2006
<p>Publications/Patents (Past 5 years)</p>	<ol style="list-style-type: none"> 1. Establishment of Carbo-Chlorination Facility and the Preparation of High Pure Hafnium Chloride for Space Grade Applications P.P. Srinivasa Kumar, S. Rajesh Kumar, Arbind Kumar, Nano Hybrids and Composites Vol. 17, pp 55-61, (2017) <p>Proceedings</p> <ol style="list-style-type: none"> 1. Urban mining of precious metals and copper from mobile motherboards : Recovery studies” All India Seminar on “Advances in Metallurgy and Manufacturing Process” on 14th July, 2019 Visvesvaraya Bhavan, Khairatabad, Hyderabad.
<p>Google scholar link</p>	<p>https://scholar.google.com/citations?user=KOx0VFIAAAAJ&hl=en</p>