

Dr. Kalpesh A. Patel



Present location: Vadodara, India

E-MAIL: charming_kalpesh@yahoo.com, kalpvrx@gmail.com

Mobile: +91 6352625158

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- ⇒ Sophisticated with materials properties characterization, structure analysis, new product design and process scale-up
 - ⇒ Strong background in design and synthesis in spray, dip, spin coating
 - ⇒ Rich experience on technical problems solving, design of experiment, data analysis and scientific principles application
 - ⇒ Experience in water based emulsions for primer, interior, exterior and enamels
 - ⇒ Intensive knowledge on thin-film coating , polymer chemistry, composites, formulation, and nano materials, sol-gel synthesis, hydrothermal synthesis
 - ⇒ Wide knowledge of synthesis nano-particles of various oxides via sol –gel method i.e. silica, tinatia, zirconia, alumina, silver, mixed oxide, etc.
 - ⇒ Proven ability to organize, prioritize and work effectively as a team member with good leadership and time management skills
 - ⇒ Solid training in publication writing, technical presentation, documentation interpretation, and lab equipment developments

Technical Skills

- ⇒ Strong in product development, formulations and modifications
- ⇒ TGA, DSC, TMA, TEM, SEM, EDX, RAMAN, FT-IR, optical/fluorescence microscopy, UV/VIS, fluorescence spectroscopy, ZETA potential, XRD, DSC, viscometer, MTS, Instron,
- ⇒ Tensile testing, resin formulation, fiber treatment, failure analysis, NDT testing
- ⇒ Weathering and life testing, chemical analysis, structure properties characterization and surface treatment

Work Experience – May 2019 to present

Company	<i>UK India Bussiness Council India Ltd (UKIBC)</i>
Designation	Subject matter expert
Duration	11 Months
Company profile	he UK India Business Council supports UK businesses with the insights, networks, policy advocacy, services, and facilities needed to succeed in India. For those setting up operations in India, we provide an

	<p>unrivalled network of government and business contacts, service providers, and our specialist staff to support business success</p> <p>I am working in The Graphene Corporation UK based company through UKIBC.</p> <p>Current products developed in paints and Coatings division.....</p> <ul style="list-style-type: none"> ⇒ Food (fruits/vegetables) preservative coatings ⇒ Photo catalyst based paint and coating ⇒ Graphene production and functionalization ⇒ Graphene based lithium battery for EV and ESS application
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Work Experience – April – 2018 to Feb 2019

Company	<i>Graphene nano innovations Pvt. Ltd.</i>
Designation	Team leader paints division
Duration	11 Months
Company profile	<p><i>Graphene nano innovations is a new start up group having various product range from paints, Nano coatings, Nano FMCG, Graphene, Batteries, etc.</i></p> <p>Current products developed in paints and Coatings division.....</p> <ul style="list-style-type: none"> ⇒ Food (fruits/vegetables) preservative coatings ⇒ Nanotechnology based coatings.... ⇒ Nanotechnology based FMCG products like floor cleaners, dishwasher, toilet cleaners, etc. household and industrial cleaner FMCG products ⇒ Graphene production and functionalizations

Work Experience –September 2013 to March 2018

Company	<i>GMM Non-stick coating</i>
Designation	Head Specialty coating division – Technical deputy manager (2017-2018) R & D chemist (2014 to 2016)
Duration	4 Years
Company profile	<p><i>GMM nonstick coating company has been acquired by Showa Denko K.K. (SDK), a market leading Japanese chemicals conglomerate with over \$7B in sales.</i></p> <p><i>Every day, more than 40M Americans use GMM Nonstick Coatings (GMM) in their kitchens when they cook on iconic American brands such as Calphalon, KitchenAid, George Foreman, Oster, Wilton, Mayer, Spectrum, Focus, Tramontina, Nordic ware, Jardon, Sunbeam, Black & Decker and Remington, etc.</i> Also have cover market in various parts of worlds like Chicago, Milan, Brazil, middle east, turkey, India, china, Thailand,</p>

	<p>Japan, Korea, etc.</p> <p>GMM is large multinational coating manufacturing industry with various coating products such as cooking, baking, grill for cooking, iron sole, hair straighter, color changing, 3D effect, soft touch, ant fingerprint proof, etc.</p>
Job profile	<ul style="list-style-type: none"> ⇒ Development of new coating products and played role to improve existing product/project a per customer need ⇒ Good hands on lower the cost of raw materials and product cost without affecting the product quality
Involved in various Projects and handled successfully	<ul style="list-style-type: none"> ⇒ Nano technology based sol gel protective coating for stainless steel ⇒ Nano technology based sol gel easy clean coatings ⇒ Nano technology based sol gel coatings for dust free, hydrophobic, oleophobic and easy clean, breathable for concrete and marble like surfaces.
Skilled learned	<ul style="list-style-type: none"> ⇒ Strong technical skills related to coatings, chemistry, and/or operations ⇒ Experiences with customer centric design, Design Thinking ⇒ Drive profitability & service improvements through Product-Life-Cycle Management ⇒ Lead Coatings product portfolio optimization, including the commercialization of NPIs, and the rationalization of under-performing products ⇒ Drive strategic sourcing initiatives to improve risk profile and cost-out ⇒ Support global product specifications with focus on aligning specifications, appropriate packaging, global QA standards, and customer communications ⇒ Troubleshoots the most difficult and potentially damaging technical problems ⇒ Knowledge of making testing report and comparison chart ⇒ Man power Handling & work distribution ⇒ Knowledge of documentations ⇒ Good House Keeping 5 – S ⇒ Training of Tools and material handling ⇒ About Corrosion Treatment
Computer skills	<p>Internet browsing and online patent search and retrieve relevant information via internet, MS office, basic knowledge of software and Internet, Windows movie maker, origine 5.0-8.1, Powder X, statistical analysis software (MINITAB and SPASS), photo editing, photo shop, coral draw, etc.</p>
Interests & Hobbies	<p>Research, Listening to music, movies, Cricket. Making friends, Traveling & nature and science facts</p>

Academic profile

2008 to 2013 { Ph.D. }	Materials Science, Department of Materials Science, Sardar Patel University
2006 to 2008 { M.Sc. }	Materials Science [62.96 %], Department of Materials Science, Sardar Patel University
2002 to 2005 { B.Sc. }	Physics [61.44 %], V.P. & R.P.T.P. Science College, Sardar Patel University
2002 { HSC }	12th Science [54.67 %], T.B. High school, Bhadran (GSEB)
2000 { SSC }	10th General [70.14 %], Karakhadi high school, Karakhadi (GSEB)

Research experience: July 2008 to August 2013

Ph.D. Title: Development and characterization of carbon and silica derived foams using template route under guidance of Prof. (Mrs.) S. Manocha, Department of materials science, Sardar Patel University.

Deep experience in research and development, particularly in preparation of nanoparticles using various sol-gel methods, porous carbon, porous ceramic, carbon foam, specialty coating nano particle synthesis, materials characterization and development, etc.

Scholarships and awards	
12/2011 to 11/2012	Under UGC research fellowship for meritorious student's scheme .
08/2009 to 07/2011	Under UGC research fellowship for meritorious student's scheme
07/2008 to 07/2009	Under UGC Major research project
Summary of research area	<ul style="list-style-type: none">⇒ Develop porous carbon and ceramics by template method (carbon foam, silica foam, siliconoxycirbide foam, SiC foam, Alumina foam, titania foam)⇒ Synthesized nanoparticles using Sol-gel method (silica, zirconia, titania, silver, zinc, aluminium etc) and ball milling, coating of sol⇒ Prepared solid and porous carbon, activated carbon materials by chemical and physical methods, activated carbon powder⇒ Prepared fibre reinforced composites, particulate reinforced composites, EMI shielding materials, insulation materials, etc⇒ Knowledge of Statistical data analysis and modelling (by MINITAB and SPSS software)⇒ Knowledge of fabrication and problem identification of high temperature furnaces (up to 1000 °C). Heat treatment of carbon, ceramic, polymer and composite materials.

	<p>⇒ Prepared phenol-formaldehyde (resole/novolac) resin, urea-formaldehyde resin, melamine formaldehyde resin, epoxy resin, etc.</p> <p>⇒</p>
Instruments handled	<p>⇒ Thermal analysis - TGA, DSC, TMA</p> <p>⇒ Mechanical Testing – Universal Testing Machine, Rockwell Hardness Machine, Impact Tester Machine</p> <p>⇒ Optical Microscope, Scanning Electron Microscope</p> <p>⇒ Hot isostatic pressing Machine</p> <p>⇒ Muffle furnaces upto 1600°C</p> <p>⇒ Gas Chromatography, BET surface area analyzer,</p> <p>⇒ FT-IR Spectrometer, UV-visible spectrometer, Flame Photometer, Spectrophotometer</p> <p>⇒ Zeta potentiometer</p> <p>⇒ Bomb calorimeter, viscometer</p>
Professional affiliations	<p>Life member: Indian Carbon Society – LM 289</p> <p>Life member: Materials Research Society of India (MRSI) – LMB1309</p>

Publications/book in journals	
1	Development of carbon foam from phenolic resin via template route, Satish M. Manocha, Kalpesh Patel and L.M. Manocha, Ind. J. Eng and Mat Sci, Vol. 17, pp.338-342, 2010 [Cited by 32]
2	Activated carbon from waste biomass of Psyllium husk: Effect of steam activation of surface characteristics, Satish M. Manocha, Ajay Chavda, Paramvirsinh Punvar and Kalpesh Patel, Prajna – Journal of pure and applied sciences, Vol. 18, pp. 88-93, 2010 [Cited by 2]
3	Development of reticulated carbon foam: An attractive material, Satish M. Manocha and Kalpesh Patel, Prajna – Journal of pure and applied sciences, Vol. 18, pp. 98-101, 2010
4	Book on Carbon and silica based foams preparation and application review, Review, applications and results, ISBN: 978-3-659-90238-3, LAP LAMBERT Academic Publishing: Omni Scriptum GmbH & Co. KG https://www.morebooks.de/store/gb/book/1/isbn/978-3-659-90238-3

Personal information

Date of birth	13 th November 1984
Nationality	Indian
Religion	Hindu
Passport no.	T4089425

Language proficiency	Fluent in Gujarati , Hindi & English Beginner in Chinese
Gender	Male
Marital status	Married + 1 kid
Wife's name	Bhumika Patel (Computer engineer)
Permanent address	AT & Po. – Dudhwada, Maheta pol khadaki (near post office) Ta – Padara, Dist – Vadodara, Gujarat , India, Pin - 391450
Present address	Vadodara

Cost to company

Current CTC	20,00,000 lacs CTC PA
Expected CTC	Negotiable
Willing to relocate	YES

Current location	Vadodara, INDIA
Location preferred	Any where
Notice period	1-3 months depends on location

Refeences

Prof. (Dr.) S.Manocha , F.G.S.A. {PhD Guide}	University School of Basic and Applied Sciences, GGS Indraprastha University , Sector 16C, Dwarka, New Delhi Email: nsicha215@gmail.com, sm_manocha@rediffmail.com, Phone: 011 25302431, +919953203831 Former Professor and head of department of Materials Science at Sardar Patel University
Prof. (Dr.) L. M. Manocha {PhD co-guide}	Academician, World Academy of Ceramics Dr. Raja Ramanna DRDO Distinguished Fellow, DMSRDE Kanpur Defence Materials & Stores Research & Development Establishment, P.O. DMSRDE, G.T. Road, KANPUR – 208 013. E-mail:- manocha52@rediffmail.com, Phone: +919375012696 Former Professor and head of Materials Science at Sardar Patel University, Honorary Coordinator, SICART, Vallabh Vidyanagar
Prof. (Dr.) Ramjibhai H Patel	B.C.J. Science College. Gujarat university, Department of Physics, Khambhat- 388 620 Email: ramjihpatel@gmail.com Phone: +919427383403, 02698225944