PROFORMA FOR BIO-DATA

1. Name and full correspondence address
Dr. Diveshkumar K. V.
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3. Institution
TKM College of Arts and Science, Kollam

4. Date of Birth
31-05-1987

5. Gender (M/F/T)
Male

6. Category Gen/SC/ST/OBC
OBC

7. Whether differently abled (Yes/No)
No

8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of marks
1.	Bachelor of Science	2005-2008	Polymer Chemistry	Kannur University	86.7%
2.	Master of Science	2008-2010	Chemistry	Kannur University	70%
3.	NET-JRF	2011 June	Chemical Sciences	UGC-CSIR	43rd Rank
4.	Doctor of Philosophy	2012-2017	Bioorganic Chemistry	Indian Institute of Technology, Bombay (IIT Bombay)	

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.
Thesis title: Synthesis, Biophysical and Biochemical Evaluation of Topology Specific G-quadruplex DNA Stabilizing Small Molecules.
Guide's Name: Dr. Pradeepkumar P. I.
Institute: Indian Institute of Technology, Bombay (IIT Bombay)
Year of Award: 2017

10. Work experience (in chronological order).

S.No.	Positions held	Name of the Institute	From	To	Pay Scale
1.	Assistant	TKM College of	11-10-2021	Present	57700-182400

	Professor	Arts and Science Kollam			
2.	Deputy Manager R & D	MRF Tyres Pvt Ltd	28-07-2019	08-10-2021	Monthly salary -1,15,000
3.	Assistant Manager R & D	MRF Tyres Pvt Ltd	15-05-2017	27-07-2021	Monthly salary -1,00,000

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

S.No	Name of Award	Awarding Agency	Year
1.	**Best poster prize by Royal Society of Chemistry** at 10th International Symposium on Bio-organic Chemistry held at IISER Pune (ISBOC10)	Royal Society of Chemistry (RSC)	2014
2.	Awarded Junior and Senior research fellowship	UGC-CSIR	2011

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

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	Malhotra, R., Rarhi, C., **Diveshkumar, K. V.**, Bommisetti, P., Pany, S. P. P., Roy, S., Pradeepkumar, P. I., Mrinalkanti K. (*Equal contribution for first authorship*)	Pyridopyrimidinone Derivatives as DNAG-Quadruplex-Stabilizing Agents: Design, Synthesis and Biophysical Studies	Chemistry Select	2	5206 – 5213	2017
2.	Pany, S. P., Bommisetti, P., **Diveshkumar, K. V.**, Pradeepkumar, P. I.	Benzothiazole Hydrazone of Furylbenzamides Preferentially Stabilize *c-MYC* and *c-KIT1* Promoter G-quadruplex DNAs	Organic & Biomolecular Chemistry	14	5779−5793	2016
3.	Malhotra, R.; Rarhi, C.;	Dihydrochelerythrine and its	Bioorganic & Medicinal Chemistry	24	2887−2896	2016

	Diveshkumar, K. V.; Barik, R.; D'cunha, R.; Dhar, P.; Kundu, M.; Chattopadhyay, S.; Roy, S.; Basu, S.; Pradeepkumar, P. I.; Hajra, S. (*Equal contribution for the first authorship*).	derivatives: Synthesis and their application as potential G-quadruplex DNA stabilizing agents				
4.	**Diveshkumar, K. V.**; Sakrikar, S.; Rosu, F.; Harikrishna, S.; Gabelica, V.; Pradeepkumar, P. I.	Specific Stabilization of c-*MYC* and c-*KIT* G-Quadruplex DNA Structures by Indolylmethyleneindanone Scaffolds	Biochemistry	55	3571−3585	2016
5.	**Diveshkumar, K. V.**; Sakrikar, S.; Harikrishna, S.; Dhamodharan, V.; Pradeepkumar, P. I.	Targeting Promoter G-Quadruplex DNAs by Indenopyrimidine-Based Ligands	ChemMedChem	9	2754−2765	2014

13. Detail of patents.

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status
1.	PNEUMATIC TYRE WITH CELLULAR LAYER	MRF Limited	479134	08-12-2023	The Patent Office, Government of India	Accepted and published

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

S.No	Title	Author's Name	Publisher	Year of Publication
NIL	NIL	NIL	NIL	NIL

15. Any other Information (maximum 500 words)

With over four years of hands-on industrial experience in tyre compounding at MRF Tyres Pvt. Ltd., the focus of work has been on the development and optimization of rubber compounds for passenger car tyres. The role involved designing cap and base compounds that met stringent performance targets, including low rolling resistance, superior wet and dry traction, wear resistance, and electrical conductivity. A key area of specialization was the formulation of tread compounds using elastomers such as natural rubber (NR), polybutadiene rubber (PBR), and styrene-butadiene rubber (SBR), in combination with reinforcing fillers like carbon black and precipitated silica. Significant contributions were made toward integrating novel materials, including functionalized carbon nanotubes (CNTs), to enhance fuel efficiency and address the conductivity limitations of conventional silica-based compounds. The work required a detailed understanding of filler–polymer interactions, dispersion techniques, and the influence of compounding ingredients on dynamic and mechanical properties. Extensive experience was gained in rheological and mechanical testing methods such as RPA (Rubber Process Analyzer), DMA (Dynamic Mechanical Analysis), tensile testing, abrasion resistance, and hardness measurement. These tools were used to correlate processing behaviour and final tyre performance characteristics. Active involvement in lab-to-plant scale-up, validation trials, and process troubleshooting ensured practical implementation of developed compounds in commercial production. The role also demanded collaboration with cross-functional teams in process engineering, quality assurance, and testing departments, alongside benchmarking studies against competitor products and global standards. Emphasis was placed on improving compound performance while optimizing cost, ensuring regulatory compliance, and maintaining manufacturability. Special attention was given to developing electrically conductive compounds for safe static charge dissipation, an increasingly important feature in modern tyre designs, especially for electric vehicles. In addition to compound development, responsibilities included raw material evaluation, statistical analysis of experimental results, and preparation of technical reports and presentations for internal review. This experience fostered a deep understanding of the structure–property–performance relationships in tyre materials, enabling innovation in sustainable and high-performance rubber composites. The exposure to industrial R&D workflows, quality protocols, and end-use performance expectations has provided comprehensive expertise in the field of tyre compounding, particularly in energy-efficient and functionally enhanced rubber systems.