
CURRICULUM VITAE

• PERSONAL INFORMATION

Family name, First name: Patil, Yogesh Raghunath

Gender: Male **Status:** Married

Nationality: Indian

Date of birth: 11/05/1984

Current Address: Catalysis Centre, King Abdullah University of Science and Technology, KSA

Email: yr.patil@yahoo.co.in & yogesh.patil@kaust.edu.sa **Mobile No.** (+966)543914904

• EDUCATION

- 2008-2011** **PhD, Polymer and Organometallics Chemistry**, University of Pisa, ITALY
Thesis: *Synthesis, Characterization and Olefins Polymerization Reactivity of Niobium-Based Metal Complexes*
Outline of PhD work: "This thesis described the synthesis and characterization of novel niobium, tantalum, copper and nickel-based metal complexes and their usefulness as catalysts for the polymerization of ethylene, cyclic olefins and vinyl monomers".
- 2004-2006** **MSc, Polymer Science**, University of Pune and National Chemical Laboratory, INDIA
Thesis: *Polymerization of Higher Alpha Olefins using Z-N Catalyst as Drag Reducer*
- 2001-2004** **BSc, Chemistry**, North Maharashtra University and Thermax R & D Division, INDIA
Thesis: Copolymer Synthesis as Ion-Exchange Resin for Water Purification

• CURRENT AND PREVIOUS POSITIONS

- 6/2014-Present** **Post-doctoral Scientist**, King Abdullah University of Science and Technology, KSA
Major working areas: Well-architecture Polymers: Star, Hyperbranch, Miktoarm, block-/graft copolymers, Polymeric micelles and morphologies, Nanocapsules, Design-polymer catalyst, etc.
Applications: O₂ transport & release, Drug and water insoluble moieties carrier, Catalysis, etc.
- 9/2013-6/2014** **Post-doctoral scientist**, University of Nebraska Medical Centre, USA
Major working areas: Amphiphilic block copolymers, Thermo-and pH-responsive polymers, Photo-crosslinking polymers, Hydrogels, Molecular self-assembly, etc.
Applications: Biomedical, Drug delivery and release, etc.
- 2/2011-6/2013** **Post-doctoral researcher**, ICG, ENSCM, University of Montpellier 2, FRANCE
Major working areas: Well-defined Fluoropolymers: PVDF, PCTFE, PHFP, PTFE, PMVE, etc.
Applications: Fuel-cell membrane, Surfactants, Paints, Coating, Adhesives, Additives, Thermoplastic elastomers, Wiring insulation, Engineering, High-Tech: microelectronic, etc.
- 8/2006-12/2007** **Research Assistant**, National Chemical Laboratory and Indian Institute of Technology B, INDIA
Major working areas: Ultra high molecular weight of polyethylene, Copolymers, Higher alpha olefins, EPDM rubber, Ni-metal complexes, Temperature rising elution fractionation, etc.
Applications: Joint replacement, Hip and knee implant/aid, rubber, etc.

● TECHNICAL AND PRACTICAL SKILLS

General	Polymer (major), Organic, Inorganic, Analytical and Physical chemistry
Synthesis	<u>Polymers</u> : PE, PP, PVDF, PSt, PNIPAM, PNB, Polyacrylates & methacrylates, Polyvinyls, etc. <u>Organometallics</u> : Group 5, 6 and 10 metal complexes <u>Organic</u> : ATRP, NMP and RAFT Initiators, Monomers, etc.
Polymerizⁿ Tech	CRP: RAFT, MADIX, ATRP, NMP and Iodine Transfer Polymerization, Coordination, Cationic, Anionic, Ring Opening Metathesis Polymerization, etc.
Methods	Solution, Emulsion, Mini-emulsion, Bulk, Gaseous and Surface-initiated polymerization, etc.
Analytical	AFM, TEM, DLS, GPC/SEC, FT-IR, TGA, DSC, NMR (¹ H, ¹³ C, ¹⁹ F, solid state), GC, LCMS, Water contact angle measurement, Intrinsic viscometry analysis, m-Brown glove box, UV spectroscopy, Dissolved-oxygen, Optical microscope, TREF, etc.
Reactors	High Pressure Reactors: Buchi, Parr and Hastelloy, etc.
Software	Cyberduck, Filezilla, Mestrac, Icore, Origin, Adobe ill, KaleidaGraph, ChemDraw, MS Office, etc.

● PUBLICATIONS

1. A Novel Poly(vinylidene fluoride)-based 4-Miktoarm Star Terpolymer: Synthesis and Self-Assembly. **Yogesh Patil**, Panayiotis Bilalis, George Polymeropoulos, Sarah Almahdali, Nikos Hadjichristidis, and Valentin Rodionov, *Molecular Pharmaceutics* **2018** doi: 10.1021/acs.molpharmaceut.8b00010.
2. pH-Sensitive Amphiphilic Block-Copolymers for Transport and Controlled Release of Oxygen. **Yogesh Patil**, Sarah Almahdali, Vu bao Khanh, Georgios Zapsas, Nikolaos Hadjichristidis, Valentin Rodionov, *Polymer Chemistry* **2017**, 8, 4322-4326 (Cover Page).
3. Well-defined multiblock poly(vinylidene fluoride) and block copolymers thereof: A missing piece of the architecture puzzle. Sanjib Banerjee, **Yogesh Patil**, Olinda Gimello, Bruno Ameduri, *Chemical Communications* **2017**, 53, 10910.
4. Synthesis of ω -Iodo and Telechelic Diiodo Vinylidene Fluoride-based (Co)polymers by Iodine Transfer Polymerization Initiated by an Innovative Persistent Radical. Sanjib Banerjee, **Yogesh Patil**, Taizo Ono, Bruno Ameduri, *Macromolecules* **2017**, 50, 203-214.
5. Towards new strategies for the synthesis of functional vinylidene fluoride-based copolymers with tunable wettability. Sanjib Banerjee, Thibaut Soulestin, **Yogesh Patil**, Vincent Ladmiral, Bruno Ameduri, *Polymer Chemistry* **2016**, 7, 4004-4015.
6. Superior Thermostability and Hydrophobicity of poly(vinylidene fluoride-co-fluoroalkyl 2-trifluoromethacrylate). Mohan Wadekar, **Yogesh Patil**, Bruno Ameduri, *Macromolecules* **2014**, 47, 13-25.
7. First Radical Homopolymerization of 2-Trifluoromethacrylic acid in Water and Study of the Degradation of the Resulting Homopolymers. **Yogesh Patil**, Hisao Hori, Hirotaka Tanaka, Takehiko Sakamoto, Bruno Ameduri, *Chemical Communications* **2013**, 49, 6662-6664.
8. A Novel Method to Assess the Molecular Weights of Fluoropolymers by Radical Copolymerization of Vinylidene Fluoride with Various Fluorinated Comonomers Initiated by a Persistent Radical. **Yogesh patil**, Ali Alaaeddine, Taizo Ono, Bruno Ameduri, *Macromolecules* **2013**, 46, 3092-3106.
9. First RAFT/MADIX Radical Copolymerization of tert-Butyl 2-Trifluoromethacrylate with Vinylidene Fluoride Controlled by Xanthate. **Yogesh Patil**, Bruno Ameduri, *Polymer Chemistry* **2013**, 4, 2783-2799.
10. Advances in the Radical Polymerization of alkyl α -trifluoromethacrylates and α -trifluoromethacrylic acid. **Yogesh Patil**, Bruno Ameduri, *Progress in Polymer Science* **2013**, 38, 703-739.
11. Fluoride adducts of Niobium(V): Activation Reactions and Alkene Polymerizations. M Hayatifar, Fabio Marchetti, Guido Pampaloni, **Yogesh Patil**, Anna Maria Raspolli Galletti, *Inorganic Chimica Acta* **2013**, 399, 214-218.
12. An Innovative Trifluoromethyl Radical from Persistent Radical as Efficient Initiator for the Radical Copolymerization of Vinylidene Fluoride with tert-butyl α -Trifluoromethacrylate. **Yogesh patil**, Taizo Ono, Bruno Ameduri, *ACS Macro Letter* **2012**, 1, 315-320.
13. Room-temperature polymerization of beta-pinene by niobium and tantalum halides. Mohammad Hayatifar, Fabio Marchetti, Guido Pampaloni, **Yogesh Patil**, Anna Maria Raspolli Galletti, *Catalysis Today* **2012**, 192, 177-182.
14. Copolymerisation of Ethylene with Vinyl Ether bearing Fluorinated group. **Yogesh Patil**, Anna Maria Raspolli Galletti, Gilles Silly, Bruno Ameduri, *Journal of Fluorine Chemistry* **2011**, 132, 1207-1212.

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15. Easily-Available Oxygen-Containing Derivatives of Niobium Pentachloride as Catalytic Precursors for Ethylene Polymerization. Fabio Marchetti, Guido Pampaloni, **Yogesh Patil**, Anna Maria Raspolli Galletti, Mohammad Hayatifar, *Polymer International* **2011**, 60, 1722-1727.
 16. Easily Available Niobium(V) Mixed Chloro-Alkoxide Complexes as Catalytic Precursors for Ethylene Polymerization. Fabio Marchetti, Guido Pampaloni, **Yogesh Patil**, Anna Maria Raspolli Galletti, Stefano Zacchini, *Journal of Polymer Science Part A: Polymer Chemistry* **2011**, 49, 1664–1670.
 17. Ethylene Polymerization by Niobium N,N-dialkylcarbamates/Aluminoxane Catalytic Systems. Fabio Marchetti, Guido Pampaloni, **Yogesh Patil**, Anna Maria Raspolli Galletti, Filippo Renili, Stefano Zacchini, *Organometallics* **2011**, 30, 1682–1688.
 18. Homopolymerization of n-butyl methacrylate using bis(salicylaldehyde)copper(II)/ methylaluminoxane catalysts. Anna Maria Raspolli Galletti, Mohammad Hayatifar, **Yogesh Patil**, *Polymer International* **2010**, 59, 1148-1153.
 19. Novel Highly Active Niobium Catalysts for Ring Opening Metathesis Polymerization of Norbornene. Anna Maria Raspolli Galletti, Guido Pampaloni, Aldo D'Alessio, **Yogesh Patil**, Filippo Renili, Simone Giaiacopi, *Macromolecular Rapid Communication* **2009**, 30, 1762-1768.

● **PATENTS**

1. *Controlled Radical Copolymerization of Fluorinated monomers by Xanthate or Trithiocarbonate*. **Yogesh patil**, Bruno Ameduri, US Patent 13/689816. Deposited on 1st December **2011** (Assigned to Arkema Group).
2. *Radical Homopolymerization of 2-trifluoromethacrylic acid*. **Yogesh patil**, Bruno Ameduri, Japanese Demand JP 2012/070563 Deposition on 27 March **2012** (Assigned to Tosoh F-Tech Japan).

● **BOOK**

"Olefins Polymerization Reactivity of Niobium-Based Metal Complexes"

Dr. Yogesh Patil Published By LAP LAMBERT Academic Publishing GmbH & Co. KG Dudweiler Landstraße 99, 66123 Saarbrücken, Germany. (Project number 29888, and ISBN 978-3-8465-1029-2, www.lap-publishing.com)

● **SYMPOSIUM COMMUNICATIONS**

1. *Recent Advances on the Radical Copolymerization of Vinylidene Fluoride*. **Yogesh Patil**, Bruno Ameduri, Ali Alaaeddien, *21st Winter Fluorine Conference*, St. Pete Beach, Florida, USA, Jan 13-18, **2013**, Book of Abstracts.
2. *Highly Active Novel Niobium Catalysts for Norbornene Ring Opening Metathesis Polymerization*. **Yogesh Patil**, Anna Maria Raspolli Galletti, *Frontiers In Polymer Science International Symposium (2009)* Mainz, GERMANY, Book of Abstracts.
3. *Novel Highly Active Group 5 Catalysts for Olefins Polymerization*. **Yogesh Patil**, Anna Maria Raspolli Galletti, Guido Pampaloni, Aldo D'Alessio, Simone Giaiacopi, Filippo Renili, Mohammad Hayatifar, *11nd International GPE-EPIC congress (2009)* Venice, ITALY, Book of Abstract.

● **DECLARATION**

I, Yogesh R. Patil, hereby declare that the information state in these Curriculum Vitae is true and correct.

July 2018
KAUST, KSA

Sincerely,
Dr. Yogesh R. Patil