

## RESUME

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**Positions held:** Professor in HAG Scale since 03.07.2019. Professor (from 17.10.2006 to 27.1.2019). Held positions of Head of the Department and Dean (Research & Consultancy) each for one full term of three and two years, respectively

**Date of Birth:** January 6, 1964

**Sex:** Male

### **Educational Qualifications:**

Ph.D. M.S. University of Baroda, Baroda . 1993 Chemical Engineering.

M.E. M.S. University of Baroda, Baroda . 1987 Petrochemical Engineering, I Class.

B.E. M.S. University of Baroda, Baroda . 1985 Chemical Engineering, Distinction.

**Ph.D. guided:** 11

**Master's guided:** 29

### **Current Research Activities**

Catalytic conversions of biomass derived molecules into chemicals and liquid transportation fuels, refining and petrochemical processes involving zeolites catalysis, CO<sub>2</sub> capture and gas storages in adsorbents

## Fellowships

# **DAAD Fellowship** to participate at the 37<sup>TH</sup> International Seminar For Research and Teaching In Chemical Engineering and Physical Chemistry at the University of Karlsruhe, Karlsruhe, Germany from May 2, 2001 to July 31, 2002.

# **DAAD Re-invitation Fellowship**, University of Bayreuth, Bayreuth, Germany, Jan. 2 to Feb. 28, 2006

# **DAAD Re-invitation Fellowship**, Technische Universitat Munchen, Muenchen, Germany, May, 11, 2009 to July 25, 2009

## Awards

# **GTU Innovation Council Innovation to Impact 2017 Award** by the Gujarat Technological University, Ahmedabad

# **5<sup>th</sup> National Award of** Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, **Government of India** for Technology Innovation in Petrochemicals & Downstream Plastic Processing Industry (2014-15) for Innovation in Polymer Waste Management & Recycling Technology and Green Polymeric Materials & Products for work on Resource Recovery from Waste Plastics for the Upgradation of Biomass Derived Bio-oil

## Visiting Professorship

# Centre of Excellence in Nanotechnology, Asian Institute of Technology, Bangkok; September – December 2010

# Indian Society for Technical Education (ISTE), New Delhi for the year 2007-08.

## Professional Associations

# **Member**, Green India Technological Alliance for Advances & Research, Surat

# **DIRECTOR (TECHNICAL)** at M/s/ Mahavir EcoProjects Private Limited, Surat (July 2014 to July 17)

**Journal Publications:** 102, **Conference Papers:** 63 **Invited talks:** > 10

## Research Grants

# **Department of Science & Technology, Technology Development & Transfer Division**, Environmentally Safe Disposal of Refinery Sludges *via* Catalytic Conversion to Value-added Hydrocarbons, Rs. 6,71,000, November 2017

# **GUJCOST**, Performance of stacked-bed configurations in isomerization reactions, Rs. 3,00,000. November 2014

# **Ministry of New and Renewable Energy**, Copyrolysis of deoiled cake of jatropha and waste plastics to produce upgraded biofuel, Rs. 1881000 Nov. 2011 to Nov. 2012

# **Gujarat Energy Development Agency, Gandhinagar, Gujarat** Co-processing of waste plastics with various biomasses to recover energy Rs. 2,42,000. (with Dr. Yogesh Rotliwala, Principal Investigator) April 2009 to March 2011

# **Petroleum Conservation Research Association (PCRA), Ministry of Petroleum Natural Gas, Government of India** Energy Recovery from Waste Plastics in Presence & Absence of other Wastes (e.g., Vacuum Residue from Refinery) In Presence & Absence of Catalysts and Microwave Irradiation. Rs. 4,55,000

# **Research Grant by Department of Science and Technology, Government of India**, Monolith Supported Zeolite Catalyzed Aromatic Alkylation Reactions of Commercial Interest

# **Ministry of Human Resources Development, Government of India**, Carbon dioxide hydrogenation, Rs. 3,00,000

## Journal Publications

### 2021

(102) Apoorv P Parikh, Vihang P Parikh, Parimal A Parikh, Comparison of Catalyst Life and Performance employing the Conversion Capacity Concept, Accepted for publication in Int. J. Chem. Kin. Doi: 10.1002/kin.21523

(101) AK Jana, M Chakraborty, PA Parikh, Treating crude oil storage tank sludge by catalytic process and recovering valuable hydrocarbons, accepted in Chemical Papers

(100) Parimal A Parikh, Correlations for catalyst deactivation during valorization of biomass derived acetone and butanol, *Chemical Papers*, 75(5)(2021)1919-1923, DOI: 10.1007/s11696-020-01475-w

## 2020

(99) Rana P.H., Parikh P.A. (2020) Catalytic Transformation of Ethanol to Industrially Relevant Fine Chemicals. In: Nanda S., N. Vo DV., Sarangi P. (eds) *Biorefinery of Alternative Resources: Targeting Green Fuels and Platform Chemicals*. Springer, Singapore. [https://doi.org/10.1007/978-981-15-1804-1\\_3](https://doi.org/10.1007/978-981-15-1804-1_3)

(98) Vaishali Umrigar, Mausumi Chakraborty, Parimal Parikh, Cleaner Production of Methyl benzoate using solid Heterogeneous catalyst via Electromagnetic waves as an Energy source, accepted in *Journal of The Institution of Engineers (India): Series E*, 101(2)(2020)109–114

(97) Rohit S. Mahale, Parimal A.Parikh, Aromatization of n-hexane: Synergism afforded by C<sub>1</sub>-C<sub>3</sub> alcohols, *Chemical Engineering Science*, 217(2020)115519

## 2019

(96) Tarun Pratap Singh Jadon, Arun Kumar Jana\*, Parimal A Parikh, Conversion of biorenewably available acetone and butanol to liquid fuels using base catalysts, Accepted for publication in *Biomass Conversion and Biorefinery*, DOI: 10.1007/s13399-019-00563-6

(95) Tarun Pratap Singh Jadon, Arun Kumar Jana and Parimal Parikh, Influence of acid-metal functions on product distribution in valorization of biomass-derived acetone and catalysts' deactivation behaviour, *Biomass Conversion and Biorefinery*, <https://doi.org/10.1007/s13399-019-00492-4>

(94) Vaishali Umrigar, Mausumi Chakraborty, Parimal Parikh, Esterification and ketalization of levulinic acid with desilicated zeolites, *Int J Chem Kinet.* 51(4)(2019)299-308.

## 2018

(93) Vaishali Umrigar, Mausumi Chakraborty, Parimal A Parikh, Catalytic activity of zeolite H-Beta for the preparation of fuels, Journal of Environmental Chemical Engineering, 6(2018)6816-6827

(92) Yogesh Shinde, Mousumi Chakraborty, Parimal A. Parikh, Combined influence of alkaline earth metals and CO<sub>2</sub> on performance of hierarchical zeolite Beta in n-hexane isomerization, Applied Petrochemical Research, 9(1)(2019)57-62

(91) Paresh H. Rana, Parimal A. Parikh, Role of Oxygen Storage/Supply Capacity of Mixed Oxides of Ce and Zr in Ethanol Oxidation, Accepted in Chem. Eng. Res. Des.

(90) S.M. Pai, B.L. Newalkar, P. A. Parikh, Quantifying Enhancement of Metal Supported Zeolites due to Hydrogen Spillover, Progress in Reaction Kinetics and Mechanism, 43(2)(2018)157-165

## 2017

(89) Paresh H. Rana, Parimal A. Parikh, Bioethanol Valorization via its Gas Phase Oxidation over Au &/or Ag supported on various Oxides, J. Ind. Eng. Chem., 47(2017)228-235

(88) Paresh H. Rana, Parimal A. Parikh, Bioethanol Selective Oxidation to Acetaldehyde over Ag-CeO<sub>2</sub>: Role of Metal -Support Interactions, New J. Chem., 41(2017)2636-2641

(87) Parimal A. Parikh, Counter-intuitive Comparable Diffusivity of Xylene Isomers in Zeolitic Mesopores: Adsorption and Catalytic Confirmation, Indian J. Chem. Technol., 24(2017)517-524.

(86) Vaishali Umrigar, Mousumi Chakraborty, Parimal A. Parikh, Study of the reaction paths for Cleaner production of Nitrochlorobenzenes using Microwave Irradiation, Chemical Engineering Research and Design, 117(2017)369-375

(85) Yogesh D. Shinde, Mousumi. Chakraborty, and Parimal A. Parikh, n-Hexane isomerization: Exploit hydrogen spillover to reduce catalyst costs, Progress in Reaction Kinetics and Mechanism, 42(1)(2017)62-68.

## 2016

(84) Abhijeet H. Thaker , Mathew John, Kishore Kumar, Mahesh W. Kasture, Snehal Kumar Parmar, Bharat L. Newalkar, and Parimal A. Parikh, Hydroisomerization of biomass derived n-hexadecane towards diesel pool: Effect of selective removal external surface sites from Pt/ZSM-22, *Int. J. Chem. React. Eng.*, 14(1)(2016)155-165

## 2015

(83) Raji, V.; Chakraborty, M.; Parikh, P. A., Room temperature benzaldehyde oxidation using air over gold-silver nanoalloy catalysts, *J. Taiwan Insti. Chem. Engrs.* 50(2015)84-92

(82) Rakhi N. Mehta, Utkarsh More, Naved Malek, Mousumi Chakraborty, Parimal A. Parikh, Study of stability and thermodynamic properties of water-in-diesel nanoemulsion fuels with nano-Al additive, *Applied Nanoscience*, 5(8)(2015)891-900

(81) R.R. Patel, J.M. Barad, S.U. Nandanwar, A.A. Dabbawala, M. Chakraborty, P.A. Parikh, and H. C. Bajaj, Cellulose Supported Ruthenium Nanoclusters as an Efficient and Recyclable Catalytic System for Benzene Hydrogenation under Mild Conditions, *Kinetics and Catalysis*, 56 (2)(2015)173–180.

(80) Hari C. Bajaj, Parimal A. Parikh, Synthesis of hierarchical nano-crystalline zeolite beta using biomass-derived hard templates, *Int. J. Materials Engineering Innovation*, 6(1)(2015)49-58.

## 2014

(79) Akshay Mehta, Gopal Tembe, Parimal Parikh and Girish Mehta, A study of molecular weight regulation in polyethylene by titanium diolate catalysts, *Polym. Int.* 63(2)(2014)206-203

(78) Paresh K. Patel, Rahul V. Patel, Dharmesh H. Mahajan, Parimal A. Parikh, Girish N. Mehta, Christophe Pannecouque, Erik De Clercq, Kishor H. Chikhaliya, Different heterocycles functionalized s-triazine analogues: design synthesis and in vitro antimicrobial, antituberculosis and anti-HIV assessment, *J. Heterocy. Chem.*, 51(6)(2014)1641-1658

- (77) Raji Vadakkekara, Mousumi Chakraborty, Parimal A. Parikh, Hollow mesoporous silica spheres supported Ag and Ag-Au catalyzed reduction of 4-nitrobenzo-15-crown, J. Ind. Eng. Chem., 20(2014)767-774.
- (76) Palak Trivedi, Parimal A. Parikh, Spent FCC Catalyst: Potential anti-corrosive and anti-biofouling material, J. Ind. Eng. Chem., 20(4)(2014)1388-1396
- (75) Palak A. Trivedi, Nikunj M. Solanki, Naresh Butani, Parimal A. Parikh, Investigation on corrosion control of mild steel buried in soil by spent FCC catalyst coating, . J. Ind. Eng. Chem., 20(4)(2014)2264-2271
- (74) Makarand A. Patil and Parimal A. Parikh, Investigation on Likely Effects of Ag, TiO<sub>2</sub>, and ZnO Particles with Nanometer Size on Sewage Treatment, Bulletin of Environmental Contamination and Toxicology, 92(2014)109–114.
- (73) Rakhi N. Mehta, Mausumi Chakraborty, Parimal A. Parikh, Nanofuels: Combustion, Engine Performance and Emissions, Fuel, 120 (2014) 91–97
- (72) Sandip Derle, Parimal A. Parikh, Hydrogenation of Levulinic Acid and  $\gamma$ -Valerolactone: Steps towards Biofuels, Biomass Conversion and Biorefinery, 4(2014)293-299
- (71) R. Vadakkekara, M. Chakraborty, P. A. Parikh, Synthesis, characterization and application of monodisperse gelatine-stabilized silver nanospheres in reduction of aromatic nitro compounds, КОЛЛОИДНЫЙ ЖУРНАЛ, 76(1)(2014) 15–21.
- (70) H.B. Pande, P.A. Parikh, Corrosion resistance of zeolite coated mild steel in chloride environment, Indian Journal of Geo-Marine Sciences, 44(8)(2014)1229.
- (69) Rakhi N Mehta, Mousumi Chakraborty & Parimal A Parikh, Study of stability, physical properties and engine performance of alcohol blended fuels, Indian Journal of Chemical Technology, 21(2014)182-187.
- (68) Rakhi N Mehta, Mousumi Chakraborty & Parimal A Parikh, Study of stability, physical properties and engine performance of alcohol blended fuels, Indian Journal of Chemical Technology, 21(2014)182-187.
- (67) Raji V., Chakraborty M., Parikh P.A. Synthesis, characterization, and application of monodisperse gelatin-stabilized silver nanospheres in reduction of aromatic nitro compounds Colloid J, 76 (2014), pp. 12-18

## 2013

(66) Harshad B. Pande and Parimal A. Parikh, Novel Application of ZSM-5 Zeolite: Corrosion Resistant Coating in Chemical Process Industry, *Journal of Materials Engineering and Performance*, 22(2013)190-199.

(65) Mayuri N. Katariya, Arun K. Jana, Parimal A. Parikh, Corrosion inhibition effectiveness of zeolite ZSM-5 coating on mild steel against various organic acids and its antimicrobial activity, *Journal of Industrial and Engineering Chemistry*, 19 (2013) 286–291

(64) Z.V.P. Murthy, Parimal A. Parikh, & Nilamkumar B. Patel, Application of  $\beta$ -Zeolite, Zeolite Y, and Mordenite as Adsorbents to Remove Mercury from Aqueous Solutions, *J. Disper. Sci. Technol.*, 34:6 (2013)747-755

(63) Akshay Mehta, Gopal Tembe, Marzena Białek, Parimal Parikh, Girish Mehta, Synthesis, characterization and ethylene polymerization by metallasilsesquioxane, *Polym. Adv. Tech.* 2013, 24, 441-445.

(62) Akshay Mehta, Gopal Tembe, Marzena Białek, Parimal Parikh, Girish Mehta, A study of ethylene polymerization by homogeneous and POSS-supported Titanium(IV) catalysts *Polimery*, 58(2013)43-50

## 2012

(61) R.N. Mehta , J.M. Barad, M. Chakraborty, and P.A.Parikh, Stability and Performance Study of Ethanol-Diesel Microemulsion Fuel, *Petroleum Science & Technology*, 30(2)(2012)159-169

(60) Y.C. Rotliwala, P. A. Parikh, Thermal Co-processing of High Density Polyethylene with Coal, Fly Ashes and Biomass: Characterization of Liquid Products, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 34(2012)1055-1066.

(59) Akshay M. Mehta, Gopal L. Tembe, Marzena Bialek, Parimal Parikh, Girish Mehta, Synthesis and catalytic studies of Ti-anchored disilanol isobutyl-POSS/alkylaluminum system, *J. Molec. Catal., A: Chem.*, 361-362(2012)17-28

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- (57) N.L. Chauhan, J. Das, R.V. Jasra, P.A. Parikh, Z.V.P. Murthy, Synthesis of small-sized ZSM-5 zeolites employing mixed structure directing agents, *Materials Letters*, 74 (2012) 115–117
- (56) O. K. Mahadwad, P. A. Parikh, R.V. Jasra and C. Patill, Photocatalytic degradation of reactive black-5 dye using TiO<sub>2</sub> impregnated activated carbon, *Environmental Technology*, 33(3)(2012)307-312
- (55) V. Raji, M. Chakraborty, and P.A. Parikh Reduction of aromatic nitro compounds on colloidal hollow silver Nanospheres, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 399(2012)11-17
- (54) Rakhi N. Mehta, Mousumi Chakraborty & Parimal A. Parikh, Comparative study of stability and properties of alcohol-diesel blends, *Indian Journal of Chemical Technology*, 19(2012)134-139.
- (53) Nilam L Chauhan, Jagannath Das, Raksh.V Jasra, Z V.P. Murthy, Parimal A Parikh, Synthesis of Zeolite ZSM-5: Effect of Emulsifiers, *Crystal Res. Technol.*, 47(7)(2012)746-753
- (52) Akshay Mehta, Gopal Tembe, Parimal Parikh, Girish Mehta, Titanasilsesquioxane-Alkylaluminum catalyst system for ethylene polymerization, *Modern Res. Catal.*, 1(2012)29-42
- (51) M. Chakraborty, D. Dobarra, & P. A. Parikh, The Separation of Aromatic Hydrocarbons Through a Supported Ionic Liquid Membrane, *Petroleum Science and Technology*, 30(2012)2504–2516
- (50) Akshay Mehta, Gopal Tembe, Prashant Umare, Marzena Bialek, Parimal Parikh, Girish Mehta, Titanium-Biphenoxide catalyst for ethylene polymerization, *J. Polym. Res.*, 19(2012)17
- (49) Vadakkekara R, Chakraborty M, Parikh PA, Synthesis of starch-stabilized silver nanoparticles and their antimicrobial activity, *Particulate Science and Technology*, 20(2012)565-577.
- (48) Vadakkekara R, Chakraborty M, Parikh PA, Catalytic performance of silica supported silver nanoparticles for liquid phase oxidation of ethylbenzene, *Ind. Eng. Chem. Res.*, 51(2012)5691-5698

(47) Vadakkekara R, Chakraborty M, Parikh PA, Reduction of aromatic nitro compounds of colloidal hollow silver nanospheres, *Colloids and Surface A: Physicochem Eng. Aspects*, 399(2012)11-17

(46) Raji, V.; Chakraborty, M.; Parikh, P. A., Synthesis of Starch-Stabilized Silver Nanoparticles and Their Antimicrobial Activity, *Particulate Sci. Technol.*, 30(6)(2012)565-577

## 2011

(45) Rakhi N. Mehta, Mausumi Chakraborty, Parimal A. Parikh, Impact of hydrogen generated by splitting water with nano- silicon and nano-aluminum on diesel engine performance *International Journal of Hydrogen Energy*, 39(2011)8098.

(44) Yogesh C. Rotliwala and Parimal A. Parikh, Study on thermal co-pyrolysis of jatropha deoiled cake and polyolefins, *Waste Management & Research*, 29(12)(2011)1251 – 1261

(43) Yogesh Chandrakant Rotliwala and Parimal Amaratlal Parikh, Thermal degradation of rice-bran with high density polyethylene: A kinetic study, *The Korean Journal of Chemical Engineering*, 28(3), 788-792 (2011)

(42) Smitha Rajesh, Parimal A. Parikh and Z.V.P. Murthy, In Situ Synthesis of Inorganic Filler Filled Polyethylene Using Polyethersulfone Supported TiCl<sub>4</sub> Catalyst System, *Journal of Applied Polymer Science*, 119(5)(2011)2611-2619

(41) Harshad R. Patil, P.A. Parikh, and Z.V.P. Murthy, Nucleating agents derived from natural resources: study on poly propylene nucleation and crystallization, *J. Polym. Mater.*, 28(1)(2011)15-32

(40) Bharat K. Modhera, Mousumi Chakrabortya Hari C. Bajaj, Parimal A. Parikha, Influences of Mesoporosity Generation in ZSM-5 and Zeolite Beta on Catalytic Performance during n-Hexane Isomerization, *Catal. Lett.*, 141 (2011)1182–1190.

(39) Rupak Kishor, Sudhakar Padmanabhan, Krishna R Sarma, Viral Patel, Shashikant Sharma, Parimal A. Parikh, Correlation of Arrhenius Parameters for UHMWPE Synthesis with Ethylene Solubility Characteristics in Different Polymerization Media, *J. Appl. Polym. Sc.*, 122(2011)2646-2652

(38) O. K. Mahadwad, P. A. Parikh, R. V. Jasra, and C. Patil, Photocatalytic degradation of reactive black-5 dye using TiO<sub>2</sub> impregnated ZSM-5, Bull. Mater. Sci., 34(3)(2011)551–556.

(37) Akshay M. Mehta, Gopal L. Tembe, Parimal A. Parikh, Girish N. Mehta, Catalytic ethylene polymerization by the titanium-polyhedral oligomeric silsesquioxane-Et<sub>3</sub>Al<sub>2</sub>Cl<sub>3</sub> system, Reac. Kinet. Mech. Cat., 104(2011)369-375

(36) Nilam L. Chauhan, Z.V.P. Murthy, J. Das, Parimal A. Parikh, Synthesis of zeolite ferrierite: role of emulsifiers, Indian J. Chem. Technol., 18(2011)335-342

## 2010

(35) Sumeet K. Sharma, Parimal A. Parikh, Raksh V. Jasra, Reconstructed Mg/Al hydrotalcite as a solid base catalyst for synthesis of jasminaldehyde, Appl. Catal. A: Gen. 386(1-2)(2010)34-42

(34) Sumeet K. Sharma, Ram S. Shukla, Parimal A. Parikh, and Raksh V. Jasra, Kinetics of the multi-step reactions for the synthesis of C<sub>8</sub> aldehydes and alcohol from propylene in a single pot using an eco-friendly multi-functional catalyst system, Appl. Catal. Gen., 386(2010)34-42

(33) Sumeet K. Sharma, Parimal A. Parikh, Raksh V. Jasra, Hydroformylation of alkenes using heterogeneous catalyst prepared by intercalation of HRh(CO)(TPPTS)<sub>3</sub> complex in hydrotalcite, J. Molec. Catal. A: Chem. 316(1-2)(2010)153-162.

(32) Sumeet K. Sharma, Parimal A. Parikh, Raksh V. Jasra, Ruthenium containing hydrotalcite as a solid base catalyst for >C=C< double bond isomerization in perfumery chemicals, J. Molec. Catal. A: Chem. 317(1-2)(2010)27-33.

(31) Bharat Modhera, Mousumi Chakraborty, Hari C. Bajaj, and Parimal A. Parikh, Simultaneous *N*-Hexane Isomerization and Benzene Saturation over Pt/Nano-Crystalline Zeolite Beta, Reaction Kinetics, Mechanisms and Catalysis, 99(2)(2010)421-429

(30) Mousumi Chakraborty, Dilip Dobaria & Parimal A. Parikh, Performance & Stability Study of Vegetable Oil based Supported Liquid Membrane, Ind. J. Chem. Technol., 17(2010)126-132

- (29) Rakhi N. Mehta, Mousumi Chakraborty, Pinakeswar Mahanta, Parimal A. Parikh, Evaluation of Fuel Properties of Butanol-Biodiesel-Diesel Blends and their Impact on Engine Performance and Emissions, *Ind. Eng. Chem. Res.*, 49 (16)(2010)7660–7665.
- (28) Z.V.P. Murthy, Parimal A. Parikh, Nilamkumar B. Patel, Adsorptive Removal of Mercury from Aqueous Solutions using H-ZSM-5 and Na-ZSM-5 Zeolites, *International Journal of Chemical and Environmental Engineering Systems*, 1(1) (2010)1-9
- (27) O.K. Mahadwad, R.V. Jasra, P.A. Parikh and R.J. Tayade, Photocatalytic Degradation of Textile Dyes, *J. Environ. Sc. Technol.*, 52(3)(2010)181-184.

## 2009

- (26) Kalpesh Sidhpuria, Parimal Parikh, Pratap Bahadur and Raksh Jasra, Influence of the surface acidity of ZSM-5 support on the catalytic activity of Rh/ZSM-5 for hydrodearomatization of toluene, *Catal. Today*, 141(2009)12-18
- (25) Bharat Modhera, Mousumi Chakraborty, Parimal A. Parikh, Raksh V. Jasra, Synthesis of Nano-crystalline Zeolite Beta: Effects of Crystallization Parameters, *Cryst. Res. Technol.* 44(4)(2009)379–385.
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- (23) Kalpesh B. Sidhpuria, Hasmukh A. Patel, Parimal A. Parikh, Pratap Bahadur, Hari C. Bajaj and Raksh V. Jasra, Rhodium nanoparticles intercalated into montmorillonite for hydrogenation of aromatic compounds in the presence of thiophene. *Applied Clay Science* 42 (2009) 386–390.
- (22) Sumeet K. Sharma, Ram S. Shukla, Parimal A. Parikh and Raksh V. Jasra, The multi-step reactions for the synthesis of C<sub>8</sub> aldehydes and alcohol from propene in a single pot using an eco-friendly multi-functional catalyst system: Kinetic performance for parametric optimization, *J. Molec. Catal. A: Chem.*, 304(1-2)(2009)33-39.
- (21) Sumeet K. Sharma, Parimal A. Parikh and Raksh V. Jasra, Synthesis of 2-methylpentanol from ethylene in one pot using eco-friendly HRhCO(PPh<sub>3</sub>)<sub>3</sub> supported

on activated hydrotalcite as a multi-functional catalyst, *J. Molec. Catal. A: Chem.* 301(1-2)(2009)31-38

(20) Dharmendra B. Parekh, Yogesh C. Rotliwala, and Parimal A. Parikh, Synergetic pyrolysis of high density polyethylene and Jatropha and Karanj cakes: A thermogravimetric study, *Journal of Renewable and Sustainable Energy* 1, 033107 (2009)

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## **2008**

(18) Kalpesh Sidhpuria, Parimal Parikh, Pratap Bahadur and Raksh Jasra, Simplified synthesis of isomorphously nickel substituted ZSM-5, *Journal of Porous Materials*, 15(2008)481-489.

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(14) P.A. Parikh and Y.C. Rotliwala, Resource recovery through catalytic cracking of waste plastics, *Waste and Resource Management*, 161 (WR2) (2008)85-87

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(12) Chintan K Joshi and Parimal A Parikh, Application of monolithic stirred reactor in hydrogenation reaction, *Indian J. Chem. Technol.*, 15(2008)572-575

## **2007**

(11) J. Das, A.B. Halgeri, V. Sahu, P.A. Parikh, Alkaline Hydrolysis of Poly(ethylene terephthalate) in the Presence of a Phase Transfer Catalyst, *Ind. J. Chem. Technol.*, 14(2007)173-177.

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(8) Vaishali M.Umrigar, Mousumi Chakraborty and Parimal A. Parikh, Microwave assisted sulfonation of 2-Naphthol by sulfuric acid: Cleaner production of Schaeffer's acid, *Ind. Eng. Chem. Res.*, 46(19)(2007)6217-6220

#### **2004**

(7) Kalpesh Sidhpuria and P.A. Parikh; Aromatic Saturation: A Means to Cleaner Transportation Fuels, *Bul. Catal. Soc. India*, 3(2)(2004)59

**No Master's or Doctoral programmes were available during the employment in this period.**

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