



# RABINDRAN JERMY BALASAMY

Nationality | Indian

Specialization | Nanotechnology, Material Science

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Language	Read	Write	Speak
English	✓	✓	✓
Hindi	✓	✓	✓

Date	Academic Degree	Department/Place of Issue	Address
2006	PhD	Department of Chemistry, Anna University, Chennai	India
2002	Master of Science	Department of Chemistry, Anna University, Chennai	India
2000	Bachelor of Science	Department of Chemistry, Loyola College, Chennai	India

PhD Title	Synthesis, characterization and catalytic activity of AIMCM-41 and heteropoly acid loaded MCM-41 for the esterification and in the synthesis of acetals and acylals
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Job Rank	Place and Address of Work	Date
Associate Professor	Department of Nanomedicine Research, IRMC, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	2021 to Present
Assistant Professor	Department of Nanomedicine, IRMC, Imam Abdulrahman Bin Faisal University, Dammam	2016-2021
Assistant Professor	King Fahd University of Petroleum and Refining, Saudi Arabia, Saudi Arabia	2008 to 2016
Post-doctoral Fellow	Pusan National University, South Korea	2006 to 2008

h-index: 32

Citations: 2391

Researcher ID: <http://www.researcherid.com/rid/P-2928-2016>

Google Scholar : [https://scholar.google.com/citations?user=xrTN\\_roAAAAJ&hl=en](https://scholar.google.com/citations?user=xrTN_roAAAAJ&hl=en)

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56100218300>

SCIENTIFIC	College	Date
Nanomaterial engineering for biomedical applications	Imam Abdulrahman Bin Faisal University Role: Associate Professor	Sep, 2016 to Present
<ul style="list-style-type: none"> <li>✓ Drug repurposing nanotechnology for targeted cancer therapeutics</li> <li>✓ Develop commercial scope based multifunctional thernostic nanomaterials for nanotherapeutics.</li> <li>✓ Synthesis of mesoporous, microporous, and hierarchical zeolites for cancer therapeutics.</li> <li>✓ Metal organic framework and zeolitic imidazolate framework modifications</li> <li>✓ Developing 1D, 2D, 3D mesoporous silica, graphene oxide, and mesoporous carbon nanocarriers.</li> <li>✓ Functionalization of Pt based drugs (cisplatin, carboplatin, oxaliplatin), tamoxifen, doxorubicin.</li> <li>✓ Developing magnetic/silica nanocomposites for thernostic applications.</li> <li>✓ Green synthesis using plant extracts.</li> <li>✓ Nano design of large pore ferrisilicate and mesocellular foam for insulin delivery.</li> <li>✓ Zeolite coating on Ti, and stainless-steel implants and study the corrosion resistivity.</li> <li>✓ Antioxidants effect on Anti-Blastocystosis activity.</li> <li>✓ Fabrication of silver silicalite for drug resistant microorganism Candida auris.</li> <li>✓ Optimization of spherical silica and Halloysite clay for targeted pulmonary infections</li> <li>✓ Liposome formulation for siRNA delivery</li> <li>✓ Study the drug/antioxidant molecular size effect for quick and slow drug release capabilities.</li> <li>✓ Designing stimuli responsive drug delivery system using pegylation, chitosan and PLGA using lyophilization.</li> <li>✓ Study loading effect of Zn, Ag, Au incorporated/impregnated zeolite, silicalite using hydrothermal/impregnation technique.</li> <li>✓ Multifunctional nanocarrier design using spinel ferrite, SPIONs and fluorescent nanoparticles.</li> <li>✓ Characterize using physico-chemical techniques (XRD, BET, FTIR, TGA-DTA, diffuse reflectance spectroscopy, SEM-EDX and TEM).</li> </ul>		
<b>Nanotechnology; Petroleum and Refining</b>	King Fahd University of Petroleum and Minerals (KFUPM) Assistant Professor, Research Scientist III	December 2008 – June 2016
<ul style="list-style-type: none"> <li>✓ Developing hierarchical nano-particles (NiO, alpha-/beta-Bi2O3 and gamma-Al2O3) alumina-based catalyst system for oxidative dehydrogenation of n-butane to butadiene in collaboration with Prof. Asouka, Japan cooperation center, Petroleum, CoRE-PRP.</li> <li>✓ Synthesis of Ge/Zr/Ti substituted nano zeolite materials for high olefinic fluid catalytic cracking using light and heavy petroleum feedstocks in collaboration with Saudi Aramco, KSA, Project No. CRP 2261</li> <li>✓ Synthesis of nano zeolites and ultra thin nanosheets for toluene methylation using high pressure pilot plant reactor in collaboration with UOP, USA, Project No. CRP2247, XYTEL, P3201, UOP</li> </ul>		

<ul style="list-style-type: none"> <li>✓ Formulation of new different mesoporous nano composite FCC additives for enhanced propylene yield from catalytic cracking of vacuum gas oil (VGO) at various catalyst/oil ratios in collaboration with Saudi Aramco, KSA, NSTIP Project; 09-PETE85-4 (in collaboration with Saudi Aramco)</li> <li>✓ Preparation of hierarchical beta based zeolites for transalkylation of heavy aromatics in collaboration with Saudi Aramco, KSA, Project No. CRP2238 (in collaboration with Saudi Aramco).</li> <li>✓ Catalytic testing of linear alkylation (LAB process) using desilicated and dealuminated Mordenite based catalysts (in collaboration with Prof. Tsai, Taiwan).</li> <li>✓ Developing side chain alkylation (toluene and methanol) processes to produce selectively styrene (Completed, in collaboration with Prof. Hattori, Hokkaido University, Japan)</li> <li>✓ Synthesizing highly dispersed CrV based mesoporous catalysts, Mg/Fe/Al or Zn/Fe/Al-based hydrotalcites precursors for dehydrogenation of ethylbenzene, n-butane, respectively in the presence of CO<sub>2</sub> or O<sub>2</sub> (Completed, KAUST-008).</li> </ul>		
Nanotechnology	Pusan National University (PNU) Post Doctoral Fellow	October 2006 – Nov 2008
<ul style="list-style-type: none"> <li>✓ Synthesis of nanoporous molecular sieves such as SBA-15, SBA-1, SBA-16, KIT-5, KIT-6, and MCM-48 by optimizing various synthesis parameters (pH, Silica to Surfactant ratio, molar hydrochloric acid to water ratio, and hydrothermal conditions)</li> <li>✓ Characterization using various physico-chemical techniques</li> <li>✓ One pot synthesis of Ni(II)<math>\alpha</math>-diimine complex supported spherical periodic mesoporous organosilica and its activity in ethylene polymerization in combination with various co-catalysts including common alkyl aluminums such as EASC, MADC and DEAC, and MAO.</li> </ul>		
<b>Awards</b>	Received <b>2<sup>nd</sup> prize for Annual Innovation Award</b> at IAU in presence of His Royal Highness Prince Saud bin Naif bin Abdulaziz.  <a href="https://twitter.com/IAU_VPSRI">https://twitter.com/IAU_VPSRI</a>  Venus International Award winner for “ <b>Outstanding Scientist</b> ” in the field of Nanotechnology, 2016.  <a href="http://viraw.info/ra16/winners/Rabindranjermy.html#">http://viraw.info/ra16/winners/Rabindranjermy.html#</a>	2024      2016
	Korean Science and Engineering Foundation Fellowship, Pusan National University, South Korea, November	2007-2008
	Korean Brain Pool Fellowship, Pusan National University, South Korea, October	2006-2007
	Project Assistant in AICTE project, New Delhi, India	2002 - 2005
<b>Research Consultant</b>	IAU-KFUPM-Saudi Aramco Project - 2022	2021- 2022
<b>TECHNICAL EDITING BOARD KFUPM</b>	Reviewer for proposal submitted to KFUPM	2013-2014

<p><b>Academic Supervisor Experience</b></p>	<p>Supervising <b>Ph.D student</b>: Ms. Hend Ghnaim Thesis title “Green and Chemical Synthesis of Platinum based Nanoformulations, Characterization and pH Stimuli Drug Delivery for Targeted Breast Cancer Therapy” 2024</p> <p>Trained Master Student at KFUPM (please refer list of publication list)</p> <ol style="list-style-type: none"> <li>1. Sung Yun Kim, Pusan National University, South Korea.</li> <li>2. Baba jidane Ajayi, KFUPM, Saudi Arabia</li> <li>3. Wahab Alabi, KFUPM, Saudi Arabia</li> <li>4. Odedairo Taiwo, KFUPM, Saudi Arabia</li> <li>5. Abdul Hameed, KFUPM, Saudi Arabia</li> <li>6. Tanimu Gazali, KFUPM, Saudi Arabia</li> </ol> <p>Trained Undergraduate Student (BA-SALEM, ABDULLAH OMA) in the Summer Training Programme at KFUPM, Saudi Arabia.</p> <p>Trained Summer research program, nanotechnology at IAU (Sep 2020)</p> <ol style="list-style-type: none"> <li>1. Ali Alghwainem</li> <li>2. Saleh Alshehri</li> <li>3. Thabet Abdulaziz Althabit</li> <li>4. Ali Alamer</li> <li>5. Sukainah Alzayer</li> <li>6. Zahra Alfaraj</li> <li>7. Sakinah Al Isam</li> </ol> <p>Trained Volunteers about nanomaterial synthesis at IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Rehab S. Basuwaidan (3 months, 2018)</li> <li>2. Ms. Hajer Saleh Ali Alghamdi (3 months, 2018)</li> <li>3. Ms. Nada A. Alhamed (3 months, 2018)</li> <li>4. Ms. Leena Alluhaibi (2 months, 2018)</li> <li>5. Ms. Shoroug (3 months, 2019)</li> <li>6. Ms. Hind Nasser ALSuwaidan ( 2 months, 2019)</li> <li>7. Ms. SUKINAH MANSOUR DHAMEN (5 months, 2022)</li> </ol> <p>Training Master Student at IAU (Nanotechnology lab II, MSNE 834; Nanoparticle uses and applications; 30-8-2020 to 31-12-2020)</p> <ol style="list-style-type: none"> <li>1. Ms. Atheel Awad M Almofleh</li> <li>2. Ms. Tahany M. A. Alfared</li> </ol> <p>Training Master Student at IAU (Nanotechnology lab I, MSNE 822; Nanoparticle uses and applications; 30-8-2020 to 31-12-2020)</p> <ol style="list-style-type: none"> <li>3. Ms. Nasser Ali AlQarni</li> <li>4. Ms. Sarah Awad Al-Otaibi</li> </ol> <p>Trained 12<sup>th</sup> grade School student, synthesis, application of nanosynthesis at IAU (Al Hussan School)</p>	
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<p>Conducted IAU/IRMC-<b>Mawhiba Program-2021</b>, IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Sultanah Omar (Participated in Ibdaa 2022, Winner of special award, Connect).</li> <li>2. Ms. Zahra Zakaria,</li> <li>3. Ms. Alia Ali</li> </ol> <p>Conducted <b>Summer Research Program-2021</b> (IRMC-SRP-2021), IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Batool Abdullah Al Tuhaifah</li> <li>2. Ms. Zahra Saeed Kashounalqaffas</li> <li>3. Atheer Jebreen Aljebreen</li> <li>4. Alaa Abdulrazaq Al adam</li> <li>5. Farah hamad Al-shaiban</li> <li>6. Shooq Mahammed Alhajri</li> <li>7. Shahad Abdulazeem Alturaif</li> </ol> <p>Conducted IAU/IRMC-<b>Mawhiba Program-2022</b>, IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Cady Baqer Alfaraj</li> <li>2. Ms. Zainab Ahmed Alwbari,</li> <li>3. Ms. Fatimah Ashraf Almatar</li> <li>4. Ms. Hamsah Abdullelah</li> </ol> <p>Conducted <b>Summer Research Program-2022</b> (IRMC-SRP-2022), IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Mr. Ahmad Abdullah Bukahmsin, Mr. Mouad Ahmed Tuhami</li> <li>2. Mr. Abdullah Aljami, Mr. Ali Alkhalaf</li> <li>3. Ms. Latifah Aljabari, Ms. Laila Albuawadh, Ms. Fatimah Alsaihati,</li> </ol> <p>Conducted IAU/IRMC-<b>Mawhiba Program-2023</b>, IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Jumana Mujeeb-ul-Haq Munzari</li> <li>2. Ms. Fatima Ahmed bin Mohammed Al Abdullah</li> <li>3. Ms. Layan Hussein bin Saeed Abukbous</li> <li>4. Ms. Jude Raed bin Abdul Razzaq Al-Duhailib</li> </ol> <p>Conducted <b>Summer Research Program-2023</b> (IRMC-SRP-2023), IRMC, IAU</p> <ol style="list-style-type: none"> <li>1. Ms. Rakan ALJOHANI,</li> <li>2. Ms. Shoug Saleh Alhbabi</li> <li>3. Mr. Farooq Hassan Dandal</li> <li>4. Ms. Sajidah Jaffar Alalwan</li> <li>5. Ms. Roaa Abdulaziz Almahman</li> </ol>	
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Laboratory Course (weeks-15; hr-30 h)	Nanotechnology I (MSNE 822 LAB; 3 + 1.5) Material Science II (MSNE 834 LAB; 3 + 1.5) Material Science II (MSNE 830 LAB; 3 + 1.5) Material Science II (MSNE 843-LABF; 3 + 1.5) Nanotechnology I (MSNE 822 LAB; 3+1.5) Material Science II (MSNE 834 LAB; 3+1.5)	Aug 2020-Dec 2020 Feb 2022-May 2022 Aug 2022-Dec 2022  Aug 2023-Dec 2023 Aug 2023-Dec 2023
Lecture	Research Methodology & Scientific Writing (MSNE891; 2 + 0) Material Science Lecture II, MSNE 834, 2023 Nanotech Lecture I, MSNE 822, 2023	Dec 2022 – Feb 2023 Aug 2023 Aug 2023
EDITOR IN CHIEF	Journal of Nanoscience & Nanotechnology Research <a href="https://www.imedpub.com/journal-nanoscience-nanotechnology-research/editors.php">https://www.imedpub.com/journal-nanoscience-nanotechnology-research/editors.php</a> Decent Journal Editorial Engineering Team <a href="https://www.decentdatabase.com/Editorial/Engineering">https://www.decentdatabase.com/Editorial/Engineering</a>	2017-2022  2019-2022
TRAINING	Attended Scanning electron microscope (SEM) Model FEI Inspect S50 Operation and Software Control at IRMC, SEM Facilities-Dammam, Saudi Arabia	2016
Course Attended	Attended control of Biohazards course at Imam Abdulrahman Bin Faisal University (IAU).	2017
Currently approved Projects at IAU	<b>TITLE OF PROJECTS</b>	<b>Amount (SAR)</b>
Grant No. 12968-iau- 2023-iau-R-3-1-HW-	Title: Reactivating and Advancement of laboratories at Institute for Research and Medical Consultations (IRMC), Imam Abdulrahman Bin Faisal University (IAU). Funder: RDIA, Year: 2024, Duration: 36 months	3,878,600
2016-099-IRMC	Designing Functionalized Hierarchical Nanocarrier, <b>Role-Principal Investigator</b> , Funding agent – Deanship of Scientific Research (DSR), IAU.	157,000
2016-099-IRMC	Designing Functionalized Hierarchical Nanocarrier, <b>Role-Principal Investigator</b> , Funding agent – Deanship of Scientific Research (DSR), IAU.	157,000
2017-091-IRMC	Design and Evaluation of stimuli responsive smart hierarchical silica nanovehicle, <b>Role-Principal Investigator</b> , Funding agent – Deanship of Scientific Research (DSR), IAU.	200,000
2016-072-DSR	Developing metal oxide based graphitized mesocarbon hybrid composite, <b>Role-Principal Investigator</b> , Deanship of Scientific Research (DSR), IAU	60,000
2016-072-DSR	Studying the efficiency of drug release in engineered 1D, 2D and 3D pore shaped Nano porous material, <b>Role-Co-investigator</b> , Deanship of Scientific Research (DSR), IAU.	180,000

2017-111-DSR	Effective targeted therapy for hepatocellular carcinoma using novel drug formulation, <b>Role-Co-investigator</b> , Deanship of Scientific Research (DSR), IAU.	76,000
2018-025-IRMC	Engineering free radical combating nanoparticles, <b>Role-Principal Investigator</b> , Deanship of Scientific Research (DSR), IAU	155,475
2018-034-DSR	A new design study of Nutraceutical based nanodrug delivery system for neuroprotection and tumor imaging, <b>Role-Co Investigator</b> , Deanship of Scientific Research (DSR), IAU	199,807
Covid19-2020-004-IRMC	Targeted delivery of Interferon Alpha for the treatment of respiratory ailment caused by novel Coronavirus, COVID-19, <b>Role-Principal Investigator</b> , IAU	150,377
2020-165-IRMC	Developing Corrosion resistant biodegradable metal oxide based silicalite coatings for medical implants, <b>Role-Principal Investigator</b> , IAU	174,820
2020-153-DSR	Developing bone targeted drug delivery system based on clay nanocomposite, <b>Role-Co Investigator</b> , IAU	176,706
Completed Projects at KFUPM, Dhahran	<b>TITLE OF PROJECTS</b>	<b>Amount (SAR)</b>
CPR2261	Development And Evaluation Of High Olefinic Fluid Catalytic Cracking (FCC) Catalyst Formulations, Saudi Aramco, Saudi Arabia Working hours <b>1000 hrs</b> ; 2013-2018, <b>in collaboration with Saudi Aramco</b>	460,000
CRP2247	Alkylation of toluene with methanol to para-xylene, UOP, Honeywell Company, USA, Working hours <b>500 hrs</b> ; (2011-2016)	500,000
CRP2251	R&D with UOP, Honeywell Company, USA, Working hours <b>150 hrs</b> ; (2011-2016)	500,000
CRP2238	Enhanced production of para-xylene via transalkylation of heavy aromatics, <b>in collaboration with Saudi Aramco</b> , Saudi Arabia, Working hours <b>150 hrs</b> ; (2011-2016)	280,000
KAUST-008	CrV based mesoporous catalysts, Mg/Fe/Al or Zn/Fe/Al-based hydrotalcites precursors for dehydrogenation of ethylbenzene, n-butane, KFUPM, Saudi Arabia, Working hours <b>150 hrs</b> ; (2008-2012)	500,000
LIST OF PATENTS	<b>Title of Patent</b>	<b>Year</b>

1	Porous silicate/magnetic ferrite nanocarrier for combination anti-cancer therapeutic and antioxidant delivery, <b>U.S. Pat.No. 11,779,652</b>	2023
2	Nanotherapeutic and a method of oxidative dehydrogenation built on hierarchical silica composites, <b>U.S. Pat.No. 11,759,534</b>	2023
3	B. Rabindran Jermy, Vijaya Ravinayagam, Curcuminoid chemotherapeutic drug carrier composition, <b>US Patent 11,738,097</b>	2023
4	B. Rabindran Jermy, Vijaya Ravinayagam, Abdulhadi Baykal, Method for treating cancer with a nanoformulation, <b>US Patent 11,723,920</b>	2023
5	B. Rabindran Jermy, Vijaya Ravinayagam, Chitosan-coated platinum ferrite-silica spinel nanocomposite, <b>US Patent 11,717,489</b>	2023
6	B. Rabindran Jermy, Vijaya Ravinayagam, Method for treating breast cancer with a chemotherapeutic drug carrier, <b>US Patent 11,701,438</b>	2023
7	. R. Jermy, V. Ravinayagam, Curcumin-based magnetic nanostructured system for dual response of imaging and therapeutics, <b>US Patent 11471542</b>	2022
8	B. Rabindran Jermy, Ali, S.A., Abudawoud, R.H., Aitani, A.M. and Al-Khattaf, S.S., Saudi Arabian Oil Co and King Fahd University of Petroleum, 2022. Zeolite composite catalysts for conversion of heavy reformat to xylenes, <b>U.S. Patent 11,351,527.</b>	2022
9	B. Rabindran Jermy, Acharya S, Vijaya Ravinayagam, Hierarchical siliceous mesosilicalite nanocarrier loaded with platinum(II) complex, <b>U.S. Pat. No. 11,103,594</b>	2021
10	B. Rabindran Jermy, Vijaya Ravinayagam, Abdulhadi Baykal, Spinel ferrite impregnated mesoporous silica containing a platinum complex, <b>U.S. Pat. No. 11207348</b>	2021
11	B. R. Jermy, V. Ravinayagam, Multifunctional pH responsive drug delivery system and method of use, <b>U.S. Pat. No. 11, 160, 763</b>	2021
12	B. R. Jermy, V. Ravinayagam, Methods for drug delivery, tumor imaging, and oxidative dehydrogenation using hierarchical ZSM-5 complex, <b>U.S. Pat. No. 11, 123, 309</b>	2021



13	B. Rabindran Jermy, Vijaya Ravinayagam, Hierarchical siliceous mesosilicalite nanocarrier”, <b>US Patent 10,525,023</b> .	2020
14	Balasamy Rabindran Jermy, Syed Ahmed Ali, Raed Hasan Abudawoud, Abdullah Mohammed Aitani, Sulaiman Saleh Al-Khattaf, Zeolite composite catalysts for conversion of heavy reformat to xylenes, <b>US Patent 10,661,260 (in collaboration with Saudi Aramco)</b>	2020
15	Balasamy Rabindran Jermy, Syed Ahmed Ali, Raed Hasan Abudawoud, Abdullah Mohammed Aitani, Sulaiman Saleh Al-Khattaf, Zeolite composite catalysts for conversion of heavy reformat to xylenes, <b>US Patent 10,661,260</b>	2020
16	Mansour Ali Al-Herz, Mused Salem Al-Ghrami, Mohammed Abdul Bari Siddiqui, Mian Rahat Saeed, Rabindran Jermy Balasamy, Methods for synthesizing hierarchical zeolites for catalytic cracking, <b>US Patent 10427142 (in collaboration with Saudi Aramco)</b>	2019

## Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publication details
1.	Almansour, <b>B. Rabindran Jermy</b>	Nucleic acid vaccine candidates encapsulated with mesoporous silica nanoparticles against MERS-CoV	Human Vaccines & Immunotherapeutics 20 (1), 2024, 2346390
2.	<b>B Rabindran Jermy</b> , FA Khan, Vijaya Ravinayagam, MA Almessiere, Y Slimani, M Hassan, AM Homeida, EA Al-Suhaimi, A Baykal	Multifunctional CoCe/silica and CoMnCe/silica spinel ferrite nanocomposite: in vitro and in vivo evaluation for cancer therapy	Nano-Structures & Nano-Objects 39, 2024, 101251
3.	Vijaya Ravinayagam and <b>Jermy, B.R.</b>	Book Chapter: Challenges of Materials Products Used in Medical Applications.	In Materials for Medical Applications 2024, (pp. 199-216). CRC Press.
4.	Suriya Rehman, Ghadi Albhishiri, Zainab Alsalem, Suhailah S AlJameel, Rabindran Jermy et al.	Bionanocomposites comprising mesoporous metal organic framework (ZIF-8) phytofabricated with Allium sativum as alternative	Bioprocess and Biosystems Engineering, 2024, 1-10.

5.	Sarah AlMofty, Vijaya Ravinayagam, Norah AlGhamdi, Wejdan AlGhamdi, Zainab AlBazroun, Layan AlMulla, Sultan Akhtar, Ali Awad Almofleh, Gazali Tanimu, H Dafalla, <b>B Rabindran Jermy</b>	Effect of CeO <sub>2</sub> /Spherical Silica and Halloysite Nanotubes Engineered for Targeted Drug Delivery System to Treat Breast Cancer Cells	Open Nano, 2023, 100169
6.	<b>Jermy, B. R.</b> , M. Salahuddin, G. Tanimu, H. Dafalla, S. Almofty, V. Ravinayagam	Design and Evaluation of Pegylated Large 3D Pore Ferrisilicate as a Potential Insulin Protein Therapy to Treat Diabetic Mellitus	Pharmaceutics 15.2 (2023): 593.
7.	<b>Jermy, B.R.</b> , Tanimu, A., Siddiqui, M.A., Qureshi, Z.S., Aitani, A., Akah, A., Xu, Q. and AlHerz, M.	Crude oil conversion to chemicals over green synthesized ZSM-5 zeolite.	Fuel Processing Technology, 2023, 241, p.107610.
8.	Almohazey, D., Ravinayagam, V., Alamoudi, W., Akhtar, S., Dafalla, H., AlSuwaidan, H.N., Almutairi, S.T., Alghamdi, H.S., Aldamen, S.A., Almessiere, M.A. and Baykal, A and <b>B. Rabindran Jermy</b>	Insights of Platinum Drug Interaction with Spinel Magnetic Nanocomposites for Targeted Anti-Cancer Effect.	Cancers, 2023, 15(3), p.695.
9.	Sarah AlMofty, Vijaya Ravinayagam, Norah AlGhamdi, Wejdan AlGhamdi, Zainab AlBazroun, Layan AlMulla, Sultan Akhtar, Ali Awad Almofleh, and <b>B.Rabindran Jermy*</b>	Influence of CeO <sub>2</sub> on Silica and Clay Nanotubes Coated with Curcumin for Targeted Delivery of Cisplatin to Breast Cancer Cells	Journal of Functional Biomaterials, revision, 2022
10.	<b>B. Rabindran Jermy</b> , Reem Y. Al-Jindan, Vijaya Ravinayagam & Ayman A. El-Badry	Anti-blastocystosis activity of antioxidant coated ZIF-8 combined with mesoporous silicas MCM-41 and KIT-6	Scientific Reports 12, 6403 (2022).
11.	<b>B Rabindran Jermy</b> , D Almohazey, WA Alamoudi, RM Palanivel, Nora AlSudairi, H Dafalla, AA Almofleh, TM Alfareed, Vijaya Ravinayagam	Synergistic action of curcumin and cisplatin on spinel ferrite/hierarchical MCM-41 nanocomposite against MCF-7, HeLa and HCT 116 cancer cell line,	Cancer Nanotechnology 12 (1), (2022), 1-21.

12	<b>B Rabindran Jermy</b> , Vijaya Ravinayagam, D Almohazey, WA Alamoudi, H Dafalla, Sultan Akhtar, Gazali Tanimu	PEGylated green halloysite/spinel ferrite nanocomposites for pH sensitive delivery of dexamethasone: A potential pulmonary drug delivery treatment option for COVID-19.	Applied Clay Science 216 (2022) 106333.
13	Ali SA, Almulla FM, <b>Jermy BR</b> , Aitani AM, Abudawoud RH, AlAmer M, Qureshi ZS, Mohammad T, Alasiri HS	Hierarchical composite catalysts of MCM-41 on zeolite Beta for conversion of heavy reformato to xylenes ( <b>in collaboration with Saudi Aramco</b> )	Journal of Industrial and Engineering Chemistry. 2021 Jun 25;98:189-99.
14	Almessiere MA, Güner S, Slimani Y, <b>Jermy BR</b> , Sertkol M, Taskhandi N, Korkmaz AD, Baykal A	An investigation on their structural, magnetic, optical, and porosity characteristics.	Ceramics International. 2021 Jun 1.
15	Al Qahtani NH, AbdulAzeez S, Almandil NB, Alhur NF, Alsuwat HS, Al Taifi HA, Al-Ghamdi AA, <b>Jermy BR</b> , Abouelhoda M, Subhani S, Al	Whole-Genome Sequencing Reveals Exonic Variation of ASIC5 Gene Results in Recurrent Pregnancy Loss.	Frontiers in Medicine. 2021;8.
16	Alomari M, Almahasheer A, <b>Jermy BR</b> , Al-Dossary AA, Bahmdan H, Ravinayagam V, Ababneh D, Tarhini M, Elaissari A.	Impact of Poly (Styrene–Acrylic Acid) Latex Nanoparticles on Colorectal and Cervical Cancer Cells.	Polymers. 2021 Jan;13(13):2025.
17	Suriya Rehman, <b>Rabindran Jermy</b> , Sarah Mousa Asiri, Manzoor A Shah, Romana Farooq, Vijaya Ravinayagam, Mohammad Azam Ansari, Zainab Alsalem, Reem Al Jindan, Zafar Reshi, Firdos Alam Khan	Using Fomitopsis pinicola for bioinspired synthesis of titanium dioxide and silver nanoparticles, targeting biomedical applications	RSC Advances 10 (2020) 32137-32147
18	M. Alomari, <b>Rabindran Jermy</b> , D. Almohazey, V. Ravinayagam, M. Al Hamad, D. Ababneh, H. Bahmdan, A-H. Alomari, Z. Mokadem, A. Elaissari,	Nile Red-Poly(Methyl Methacrylate)/Silica Nanocomposite Particles Increase the Sensitivity of Cervical Cancer Cells to Tamoxifen	Polymers 12 (2020) 1516. Impact Factor: 3.42
19	Vijaya Ravinayagam and <b>Rabindran Jermy</b> ,	Nanomaterials and Their Negative Effects on Human Health,	Book chapter, Applications of Nanomaterials in Human Health, In: Khan F. (eds) Applications of Nanomaterials in Human Health. Springer, Singapore, 2020, 249-273.

20	<b>Rabindran Jermy</b> , Vijaya Ravinayagam, Widyan Alamoudi, Dana Almohazey, Silviya Elanthikkal, Hatim Dafalla, Suriya Rehman, Govindasamy Chandrasekar, Abdulhadi Baykal	Tuning pH sensitive chitosan and cisplatin over Spinel ferrite/Silica nanocomposite for anticancer activity in MCF-7 cell line	Journal of drug delivery science and technology, 2020, 101711, Impact Factor: 2.73
21	Suriya Rehman, Sarah Mousa Asiri, Firdos Alam Khan, B <b>Rabindran Jermy</b> , Vijaya Ravinayagam, Zainab Alsalem, Reem Al Jindan, Ahsanulhaq Qurashi	Anticandidal and In vitro Anti-proliferative Activity of Sonochemically synthesized indium tin oxide nanoparticles	Scientific reports, 9 (2020)1-10 Impact Factor: 4.01
22	Suriya Rehman, Munerah Abdullah Almessiere, Nedaa Tashkandi, Abdulhadi Baykal, Yassine Slimani, <b>Rabindran Jermy</b> , Vijaya Ravinayagam, Cevat Yaman	Fabrication of Spinel Cobalt Ferrite (CoFe <sub>2</sub> O <sub>4</sub> ) Nanoparticles with Unique Earth Element Cerium and Neodymium for Anticandidal Activities	ChemistrySelect, 4 (2019) 14329-14334, Impact Factor: 1.70
23	Sayed AbdulAzeez, Nourah H Al Qahtani, Noor B Almandil, Amani M Al-Amodi, Sumayh A Aldakeel, Neda Z Ghanem, Deem N Alkuroud, Ameen AlTurki, Quds Abdulhakeem AlQattan, Abdulrahman Alghamdi, Norah Fahad Alhur, Hatoon Ahmed Al Taifi, Halah Egal Aljofi, <b>B Rabindran Jermy</b> , Vinoth Raman, Antonino Giambona, Aurelio Maggio, J	Genetic disorder prenatal diagnosis and pregnancy termination practices among high consanguinity population, Saudi Arabia	Scientific reports, 9 (2019)1-8 Impact Factor: 4.01
24	<b>Rabindran Jermy Balasamy</b> , Vijaya Ravinayagam, Munther Alomari, Mohammad Azam Ansari, Sarah Ameen Almofty, Suriya Rehman, Hatim Dafalla, Palanivel Rubavathi Marimuthu, Sultan Akhtar, Mohammad Al Hamad	Cisplatin delivery, anticancer and antibacterial properties of Fe/SBA-16/ZIF-8 nanocomposite	RSC Advances 9 (2019) 42395-42408, Impact Factor: 3.11
25	<b>B Rabindran Jermy</b> , Vijaya Ravinayagam, Widyan A Alamoudi, Dana Almohazey, Hatim Dafalla, Lina Hussain Allehaibi, Abdulhadi Baykal, Muhammet S Toprak, Thirunavukkarasu Somanathan	Targeted therapeutic effect against the breast cancer cell line MCF-7 with a CuFe <sub>2</sub> O <sub>4</sub> /silica/cisplatin nanocomposite formulation	Beilstein journal of nanotechnology, 10 (2019) 2217-2228, Impact Factor: 2.44

26	<b>Rabindran Jermy</b> & Vijaya Ravinayagam	Hierarchical ZSM-5 based MCM-41 aluminosilicates: Ostwald ripening effect of 8 years old aged samples	Advances in Natural Sciences: Nanoscience and Nanotechnology, 2019, in press, Impact Factor: 1.58
27	<b>B. Rabindran Jermy*</b> , Munther Alomarib, Vijaya Ravinayagam*, Sarah Ameen Almoftyc, S. Akhtard, Jesu Francis Borgioe, Sayed Abdul Azeeze	SPIONs/3D SiSBA-16 based Multifunctional Nanoformulation for target specific cisplatin release in colon and cervical cancer cell lines	Scientific Reports, 9, Article number: 14523 Impact Factor: 4.01
28	Suriya Rehman, Mohammad Azam Ansari, Mohammad A. Alzohairy, Mohammad N. Alomary, <b>B Rabindran Jermy</b> , Raheem Shahzad, Neda Tashkandi, Zainab Hassan Alsalem	Antibacterial and Antifungal Activity of Newly Synthesized Neodymium (Nd)-substituted Cobalt Ferrites Nanoparticles for Biomedical Application	Processes, 2019, 7 (10) 714 Impact Factor: 1.96
29	Munther Alomari, <b>B Rabindran Jermy*</b> , Vijaya Ravinayagam, Sultan Akhtar, Sarah Ameen Almofty, Suriya Rehman, Hiba Bahmdan, Sayed AbdulAzeez, J Francis Borgio	Cisplatin-functionalized three-dimensional magnetic SBA-16 for treating breast cancer cells (MCF-7)	ARTIFICIAL CELLS, NANOMEDICINE, AND BIOTECHNOLOGY, 47 (2019) 3079-3086, Impact Factor: 4.462
30	T Somanathan, A Abilarasu, B <b>Rabindran Jermy</b> , Vijaya Ravinayagam, D Suresh	Microwave assisted green synthesis Ce <sub>0.2</sub> Ni <sub>0.8</sub> Fe <sub>2</sub> O <sub>4</sub> nanoflakes using calotropis gigantean plant extract and its photocatalytic activity	Ceramics International, 45 (2019) 18091-18098. Impact Factor: 3.45
31	Suriya Rehman, <b>B. Rabindran Jermy</b> , Sultan Akhtar, J. Francis Borgio, Sayed Abdul Azeez, Vijaya Ravinayagam, Reem Al Jindan, Zainab Hassan Alsalem, Abdullah Buhameid and Adil Gani	Isolation and characterization of a novel thermophile; Bacillus haynesii, applied for the green synthesis of ZnO nanoparticles	ARTIFICIAL CELLS, NANOMEDICINE, AND BIOTECHNOLOGY, 47 (2019) 2072-2082, Impact Factor: 4.462
32	Suriya Rehman, Sarah Mousa Asiri, Firdos Alam Khan, <b>B Rabindran Jermy</b> , Hafeezullah Khan, Sultan Akhtar, Reem Al Jindan, Khalid Mohammed Khan, and	Biocompatible Tin Oxide Nanoparticles: Synthesis, Antibacterial, Anticandidal and Cytotoxic Activities	Chemistry Select, 4 (2019) 4013-4017

33	Ebtesam Al-Suhaimi, Vijaya Ravinayagam, <b>B Rabindran Jermy</b> , Tarhini Mohamad, Abdelhamid Elaissari	Protein/Hormone Based Nanoparticles as Carriers for Drugs Targeting Protein-Protein Interactions	Current topics in medicinal chemistry, 19 (2019) 444-456
34	A. Baykal, A. Bozkurt, <b>B. Rabindran Jermy</b> , M. Sarah Asiri, M.K. Lima-Tenorio, C. Kaewsaneha, A. Elaissari	Book Chapter "Multistimuli Responsive Magnetic assemblies" in Stimuli Responsive Polymeric Nanocarriers for Drug Delivery Applications	Part 2, Vol 2, Woodhead Publishing, Elsevier, Page 155-185, 2018.
35	<b>B. Rabindran Jermy</b> , V. Ravinayagam, S. Akhtar, W. A. Alamoudi, A. Baykal	Magnetic mesocellular foam functionalized by Curcumin for potential multifunctional therapeutics	Journal of Superconductivity and Novel Magnetism, accepted, 2018. Impact Factor:1.14
36	Vijaya Ravinayagam and <b>B. Rabindran Jermy</b> .	Fabricating hierarchical ZSM-5 to induct long chain antioxidant Coenzyme Q10 for biomedical application	Journal of Saudi Chemical Society 2018, <a href="https://doi.org/10.1016/j.jscs.2018.09.001">https://doi.org/10.1016/j.jscs.2018.09.001</a> . Impact Factor:2.45
37	S Akhtar, ŞT Günday, <b>BR Jermy</b> , MA Almessiere, A Bozkurt.	A Novel Approach to Produce Monodisperse Hollow Pure Silica Spheres	Journal of Saudi Chemical Society 2018, <a href="https://doi.org/10.1016/j.jscs.2018.09.002">https://doi.org/10.1016/j.jscs.2018.09.002</a> Impact Factor:2.45
38	<b>B Rabindran Jermy</b> , Sadananda Acharya, Vijaya Ravinayagam, Hajer Saleh Alghamdi, Sultan Akhtar, Rehab S. Basuwaidan	Hierarchical mesosilicalite nanoformulation integrated with cisplatin exhibits target-specific efficient anticancer activity	Appl Nanosci (2018) 8: 1205-1220. Impact Factor:2.95
39	Vijaya Ravinayagam and <b>B. Rabindran Jermy</b>	Optimization study of nanoporous cubic Ti-SBA-16	J Porous Mater (2018) 25: 813-820. Impact Factor:1.85
40	<b>B. Rabindran Jermy</b>	Synthesis of hexagonal aluminosilicate from liquid-crystalline mesophase using zeolitic nanoclusters: bottom-up versus top-down approach	J Porous Mater (2018) 25: 735-754. Impact Factor:1.85
41	Vijaya Ravinayagam and <b>B. Rabindran Jermy</b>	Studying the loading effect of acidic type antioxidant on amorphous silica nanoparticle carriers	Journal of Nanopart Res. 19 (2017) 190. Impact Factor:2.12

42	Hideshi Hattori, Abdulhameed A. Amusa, <b>Rabindran B. Jermy</b> , Abdullah M. Aitani, Sulaiman S. Al-Khattaf	Zinc oxide as efficient additive to cesium ion-exchanged zeolite X catalyst for side-chain alkylation of toluene with methanol	J Mol Catal. A:Chem. 424 (2016) 98. Impact Factor:3.958
43	G. Tanimu, <b>B. Rabindran Jermy</b> , S. Asaoka, S. Al-Khattaf,	Composition effect of metal species in (Ni, Fe, Co)-Bi-O/ $\gamma$ -Al <sub>2</sub> O <sub>3</sub> catalyst on oxidative dehydrogenation of n-butane to butadiene	Journal of Industrial and Engineering Chemistry, 45 (2016) 111. Impact Factor 4.179
44	<b>B. Rabindran Jermy</b> , S. Asaoka, S. Al-Khattaf	Influence of calcination on performance of Bi-Ni-O/ $\gamma$ -alumina catalyst for n-butane oxidative dehydrogenation to butadiene	Catal. Sci. Technol., 5, (2015) 4622-4635. Impact Factor 4.179
45	<b>B. Rabindran Jermy</b> , B.P. Ajayi, B.A. Abussaud, S. Asaoka, S. Al-Khattaf	Oxidative dehydrogenation of n-butane to butadiene over Bi-Ni-O/ $\gamma$ -alumina catalyst	J. of Mol. Catal. A: Chem. 400 (2015) 121-131. Impact Factor:3.958
46	Waqas Aslam, M. Abdul Bari Siddiqui, <b>B. Rabindran Jermy</b> , Abdullah Aitani, Jiří Čejka, Sulaiman Al-Khattaf,	Selective synthesis of linear alkylbenzene by alkylation of benzene with 1-dodecene over desilicated zeolites	Catalysis Today, 227 (2014) 187-197. Impact Factor:4.312
47	B.P. Ajayi, B. Abussaud, <b>Jermy B. R.</b> , S. Al-Khattaf,	Kinetic modelling of n-butane dehydrogenation over CrOxVOx/MCM-41 catalyst in a fixed bed reactor	Progress in Reaction Kinetics and Mechanism, 39 (2014) 341-353. Impact Factor:0.279
48	Wahab O. Alabi, Balkrishna B. Tope, <b>Rabindran B. Jermy</b> , Abdullah M. Aitani, Hideshi Hattori, Sulaiman S. Al-Khattaf	Modification of Cs-X for styrene production by side-chain alkylation of toluene with methanol	Catalysis Today, 226 (2014) 117-123. Impact Factor 4.312
49	Hattori H, Alabi W.O, <b>Jermy B.R.</b> , Aitani A.M, Al-Khattaf, S	Pathway to Ethylbenzene Formation in Side-Chain Alkylation of Toluene with Methanol Over Cesium Ion-Exchanged Zeolite X	Catal. Lett., 143 (2013) 1025-1029. Impact Factor2.294

50	B.P. Ajayi, <b>B. Rabindran Jermy</b> , B.A. Abussaud, S. Al-Khattaf	Oxidative dehydrogenation of n-butane over bimetallic mesoporous and microporous zeolites with CO <sub>2</sub> as mild oxidant	J. Porous Materials, 20 (2013) 1257-1270. Impact Factor 1.385
51	Je-Shian Lin, Jhao-Jyun Wang, Jenshi Wang, Ikai Wang, <b>Rabindran J. Balasamy</b> , Abdullah Aitani, Sulaiman Al-Khattaf, Tseng-Chang Tsai	Catalysis of alkaline-modified mordenite for benzene alkylation of diolefin-containing dodecene for linear alkylbenzene synthesis	Journal of Catalysis, 300 (2013) 81-90. Impact Factor 7.354
52	B. P. Ajayi, <b>B. Rabindran Jermy</b> , K.E. Ogunronbi, B.A. Abussaud, S. Al-Khattaf	n-butane dehydrogenation over mono and bimetal impregnated MCM-41 in oxygen free atmosphere	Catalysis Today, 204 (2012) 189-196. Impact Factor 4.312
53	Wahab Alabi, Luqman Atanda, <b>Rabindran Jermy</b> , Sulaiman Al-Khattaf,	Kinetics of toluene alkylation with methanol catalyzed by pure and hybridized HZSM-5 catalysts	Chemical Engineering Journal, 195-196 (2012) 276-288. Impact Factor
54	T. Odedairo, <b>R.J. Balasamy</b> and S. Al-Khattaf,	Aromatic transformation over ZSM-5/MCM-41 composites with adjustable porosity in fluidized bed reactor	Catal. Sci. Technol., 2 (2012) 1275-1286. Impact Factor 5.287
55	S. Al-Khattaf, T. Odedairo, <b>R.J. Balasamy</b>	Kinetic and catalytic performance of a bi-porous composite material in catalytic cracking and isomerization reactions	Canadian Chemical Eng Journal, 9999 (2012) 1-11. Impact Factor 1.066
56	R.J. Balasamy, T. Odedairo, S. Al-Khattaf,	Unique catalytic performance of mesoporous molecular sieves containing zeolite units in transformation of m-xylene	Appl. Catal. A: Gen., Vol. 409-410, 2011, 223-233. Impact Factor 4.012
57	B. R. Jermy, M. A. B. Siddiqui, A. M. Aitani, M. R. Saeed, S. Al-Khattaf	Utilization of ZSM-5/MCM-41 Composite as FCC Catalyst Additive for Enhancing Propylene Yield from VGO Cracking	J. Porous Mater. 19 (2012) 499-509. Impact Factor 1.385



58	T. Odedairo, R.J. Balasamy, S. Al-Khattaf	Influence of mesoporous materials containing ZSM-5 on alkylation and cracking reactions,	J. Mol. Catal., Volume 345, Issues 1-2, 2011, 21-36. Impact Factor 3.958
59	B. Rabindran Jermy, Muneeb Khurshid, Mohammed A. Al-Daous, Hideshi Hattori, Sulaiman S. Al-Khattaf	Optimizing preparative conditions for tungstated zirconia modified with platinum as catalyst for heptane isomerization	Catal. Today, Vol. 164, 2011, 148. Impact Factor 4.312
60	Balkrishna B. Tope, Rabindran J. Balasamy, Alam Khurshid, Luqman A. Atanda, Hidenori Yahiro, Tetsuya Shishido, Katsuomi Takehira, Sulaiman S. Al-Khattaf	Catalytic mechanism of the dehydrogenation of ethylbenzene over Fe–Co/Mg(Al)O derived from hydrotalcites	Appl. Catal. A: Gen., Vol. 407, Issues 1-2, 2011, 118-126. Impact Factor 4.012
61	Rabindran J. Balasamy, Alam Khurshid, Ali A.S. Al-Ali, Luqman Atanda .A., Kunimasa Sagata, Makiko Asamoto, Hidenori Yahiro, Kiyoshi Nomura, Tsuneji Sano, Katsuomi Takehira, Sulaiman S. Al-Khattaf	Ethylbenzene dehydrogenation over FeOx/(Mg,Zn)(Al)O catalysts derived from hydrotalcites: Role of MgO as the catalyst support	Appl. Catal. A. Gen., Vol. 398, 2011, 113. Impact Factor 4.012
62	Luqman Atanda, Rabindran J. Balasamy, Alam Khurshid, Ali A.S. Al-Ali, .A., Kunimasa Sagata, Makiko Asamoto, Hidenori Yahiro, Kiyoshi Nomura, Tsuneji Sano, Katsuomi Takehira, Sulaiman S. Al-Khattaf	Ethylbenzene dehydrogenation over Mg <sub>3</sub> Fe <sub>0.5-x</sub> CoxAl <sub>0.5</sub> catalysts derived from hydrotalcites: Comparison with Mg <sub>3</sub> Fe <sub>0.5-y</sub> NiyAl <sub>0.5</sub> catalysts	Appl. Catal. A Gen., Vol. 396, 2011, 107. Impact Factor 4.012
63	Rabindran J. Balasamy, Alam Khurshid, Ali A.S. Al-Ali, Luqman Atanda .A., Kunimasa Sagata, Hidenori Yahiro, Kiyoshi Nomura, Tsuneji Sano, Katsuomi Takehira, Sulaiman S. Al-Khattaf	Ethylbenzene dehydrogenation over binary FeOx–MeOy/Mg(Al)O catalysts derived from hydrotalcites	Appl. Catal. A Gen., Vol. 390, pp. 225-234. 2010. Impact Factor 4.012
64	T. Odedairo, R.J. Balasamy, S. Al-Khattaf	Toluene disproportionation and methylation over zeolites TNU-9, SSZ-33, ZSM-5 and mordenite using different reactor system	Ind. Eng. Chem. Res., Vol. 50, 2011, 3169. Impact Factor:2.567

65	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, Dae-Won Park	Optimization of Various Synthesis Parameters for Effective Vanadium Substitution into Cubic SBA-16 in the Presence of Co-Surfactant At Low Acidity: Its Application in the Selective Oxidation of Ethyl benzene	Journal of Industrial and Engineering Chemistry, Vol. 17, 2011, 130. Impact Factor:4.179
66	Bijal Kottukkal Bahuleyan, Balasamy Rabindran Jermy, In Yong Ahn, Hong Suk Suh, Dae-Won Park, Chang SikHa, Il Kim	One-pot synthesis of spherical periodic mesoporous organosilica supported catalyst bearing Ni(II) $\alpha$ -diimine complexes for ethylene	Catal. Commun. Vol. 11, (2009) pp. 252-256. Impact Factor: 3.389
67	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, Dae-Won Park	Optimization, Synthesis and Characterization of Vanadium-Substituted Thick Walled Three-Dimensional SBA-16	Microporous and Mesoporous Materials, Vol. 117 (2009) 661-669. Impact Factor: 3.349
68	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, M. Selvaraj, Dae-Won Park	Easy route for the synthesis of Fe-SBA-16 at weak acidity and its catalytic activity in the oxidation of cyclohexene	Microporous and Mesoporous Materials, Vol. 121 (2009) 103-113. Impact Factor: 3.349
69	Kanattukara Vijayan Bineesh, Dal-Rae Cho, Sang-Yun Kim, Balasamy Rabindran Jermy, D.W. Park	Synthesis, characterization and catalytic performance of vanadia-doped delaminated zirconia-pillared montmorillonite clay for the selective catalytic oxidation of hydrogen sulfide	J. Mol. Catal. A: Chemical, Vol. 308 (2009) 150-158. Impact Factor:3.958
70	Kanattukara Vijayan Bineesh, Dal-Rae Cho, Sang-Yun Kim, Balasamy Rabindran Jermy, Dae Won Park	Synthesis of vanadium doped Titanium Pillared Clay for the Selective Catalytic Oxidation of H <sub>2</sub> S	Catal. Commun., Vol. 9 (2008) 2040-2043. Impact Factor: 3.389
71	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, M. Selvaraj, Dae-Won Park	Direct incorporation of vanadium into three-dimensional KIT-6: 1. Reactivity test for styrene oxidation	Korean Journal of Chemical Engineering, Vol. 26 (2009) 1241-1245. Impact Factor:1.408
72	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, M. Selvaraj, Dae-Won Park	Direct incorporation of vanadium into three-dimensional KIT-6: 1. Optimization of synthesis conditions	Korean Journal of Chemical Engineering, Vol. 26 (2009) 1235-1240. Impact Factor:1.408

73	Rabindran Jermy B, Sang-Yun Kim, Bineesh K.V, Dae-Won Park	Vanadium incorporated into three-dimensional KIT-6: Optimization of synthesis procedure and its catalytic applications	Stud. Surf. Sci. Catal. Vol. 174 (2008) 1267-1270
74	Rabindran Jermy B, Dal-Rae Cho, Bineesh K.V, Sang-Yun Kim, Dae-Won Park	Direct synthesis of vanadium incorporated three-dimensional KIT-6: A systematic study in the oxidation of cyclohexane	Microporous and Mesoporous Materials, Vol. 115 (2008) 281-292. Impact Factor: 3.349
75	Kanattukara Vijayan Bineesh, Sang-Yun Kim, Balasamy Rabindran Jermy, Dae-Won Park	Catalytic performance of vanadia-doped titania-pillared clay for the selective catalytic oxidation of H <sub>2</sub> S	Journal of Industrial and Engineering Chemistry 15 (2009) 207–211. Impact Factor:4.179
76	Rabindran Jermy B. and Pandurangan A	An effective heterogeneous H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> supported MCM-41 molecular sieves for the synthesis of geminal diacetates (acylals)	Catalysis Communications, Vol 9, (2008) 577-583. Rated 25th in Top 25 Articles published between October-December 2005. Impact Factor 4.012
77	Rabindran Jermy B and Pandurangan A	Solvent-free synthesis of diacetal of pentaerythritol under microwave irradiation using heteropoly acid H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub>	Catalysis Communications, Vol 7, (2006) 921-925. Rated 8th in Top 25 Articles published in Catalysis Communications October- December 2006. Impact Factor: 3.389
78	Rabindran Jermy B. and Pandurangan A	Al-MCM-41 as an efficient heterogeneous catalysts in the acetalization of cyclohexanone with methanol, ethylene glycol and pentaerythritol	J. Mol. Catal. A: Chemical, Vol. 256, (2006) 184-192. Impact Factor:3.958
79	Rabindran Jermy B. and Pandurangan A	H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> supported on MCM-41 molecular sieves: An effective catalyst for acetal formation	Appl. Catal. A: General, Vol. 295, (2005) 185-192. Impact Factor: 4.012

80	Rabindran Jermy B. and Pandurangan A	Catalytic application of Al-MCM-41 in the esterification of acetic acid with various alcohols	Appl. Catal. A: General, Vol. 288, (2005) 25-33. Impact Factor:4.012
81	Rabindran Jermy B. and Pandurangan A	A highly efficient catalyst for the esterification of acetic acid using n-butyl alcohol	J. Mol. Catal. A: Chemical, Vol. 237, (2005) 146-154. Impact Factor: 3.958

#### Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of Conference	Extent of Contribution
1.	Participated in the <b>Promising Technologies and Innovations exhibition</b> accompanying the "Sustainable Partnerships" conference (Research and Innovation towards a Prosperous Economy)	November 23-24, in Riyadh.	Participated
2.	32nd European Congress of Clinical Microbiology and Infectious Diseases "Anti-Cryptosporidium effect of new hybrid resveratrol nanocomposite in immunocompromised mice".	23-26 <sup>th</sup> of April 2022, Lisbon, Portugal	Participated
3.	SUNCAT Summer Institute 2021 on Catalysis for a Sustainable future, CENTER FOR INTERFACE SCIENCE AND CATALYSIS	Virtual International Conference, Stanford University, August 16-19, 2021.	Participated

4.	Therapeutic and Nitazoxanide-enhancer effect of a novel curcumin nanocomposite in Cryptosporidium infected immunocompromised mice, Ayman A. EL-BADRY, Reem Y. AL-Jindan, Eman S. El-Wakil, Rabindran Jermy	13th European Multicolloquium of Parasitology, a hybrid event in Belgrade, Serbia, October 12-16, 2021.	Oral Presentation (Co-author)
5.	Professional development lecture" Topics on research article writing: Literature survey and introduction-Research Methodology"	IRMC, Imam Abdulrahman BinFaisal University, Saudi Arabia, June 16 <sup>th</sup> , 2021.	Oral presentation
6.	International Virtual Conference on Advanced Nanomaterials and their applications (ICANTA 2021), Topic: Designing Industrial relevant Catalyst for Petroleum refining and cancer therapeutics	Department of Chemistry, School of Basic Sciences, VISTAS, Chennai, Tamil Nadu, India	Oral presentation
7.	Faculty Development Program, Topic: Zeolites role in petrochemicals and biomedical applications	Department of Chemistry, MES Keveeyam College Valanchery, Malappuram dist, Kerala, India, Feb, 2021.	Oral presentation
8.	International Webinar, Porous solid Zeolites in Petroleum refining and Biomedical applications	Department of Chemistry, Vinayaka Mission's Kirupananda Variyar Engineering College, Salem, Tamil Nadu, Dec, 2020	Oral Presentation
9.	Bi-Ni-O/gamma-alumina Catalyst for n-Butane Oxidative Dehydrogenation to Butadiene, Rabindran Jermy, B, Ajayi, B.P, Abussaud, B.A, Asaoka, S, Al-Khattaf, S.	King Fahd University of Petroleum and Minerals, Research Institute for Proceedings 24th Saudi Japan Annual Symposium Catalysts in Petroleum Refining & Petrochemicals KFUPM Dhahran, Saudi Arabia Dec. 1-2, 2014.	Oral Presentation

10	Selective synthesis of linear alkylbenzene by alkylation of benzene with 1-dodecene over desilicated zeolites. Aslam, W.; Siddiqui, M.A.B.; Jermy, B.R.; Aitani, Abdullah; Čejka, Jiří; Al-Khattaf, S.	5th Czech-Italian-Spanish Conference on Molecular Sieves and Catalysis, June 16-19, 2013, Segovia, Spain.	Co-author
11	Tuning dehydrogenation activity of MCM-41 and Ni/γ-alumina based catalyst system for butadiene production from n-butane, B. Rabindran Jermy, B.P. Ajayi, B.A. Abussaud, S. Asaoka, S. Al-Khattaf,	King Fahd University of Petroleum and Minerals, Research Institute – 23rd Annual Catalysts in Petroleum Refining and Petrochemicals Symposium Papers, KFUPM, Saudi Arabia, 2, Dec, 2013.	Oral Presentation
12	Improvised catalytic performance on mesoporous molecular sieves containing ZSM-5 in m-xylene isomerization, Rabindran Jermy, T. Odedairo, M. N. Akhtar, Sulaiman S. Al-Khattaf	15th International Congress on Catalysis, Munich, Germany, July 1, 2012.	Co-author
13	B. P. Ajayi, B. Rabindran Jermy, K.E. Ogunronbi, B.A. Abussaud, S. Al-Khattaf	Butane dehydrogenation over mono and bimetallic MCM-41 catalysts under oxygen free atmosphere, International Zeolite Workshop, Jeju Island, South Korea, Aug 3-5-2012.	Poster Presentation
14	Balasamy, R.J., Odedairo, T., Al-Khattaf, S. Does the presence of ZSM-5 influence the catalytic activity of mesoporous molecular sieves?	King Fahd University of Petroleum and Minerals, Research Institute – 21st Annual Catalysts in Petroleum Refining and Petrochemicals Symposium Papers, KFUPM, Saudi Arabia, Nov 27, 2011.	Oral Presentation
15	B. Rabindran Jermy, Muneeb Khurshid, Mohammed A. Al-Daous, Hideshi Hattori, Sulaiman S. Al-Khattaf	Optimizing preparative conditions for tungstated zirconia modified with platinum as catalyst for heptane isomerization' Oral Presentation, TOCAT6/APCAT5, July 18-23, Sapporo, Japan.	Co-author

16	Balasamy Rabindran Jermy, Dal-Rae Cho, Kanattukara Vijayan Bineesh, Sang-Yun Kim, Dae-Won Park	VANADIUM INCORPORATED INTO THREE DIMENSIONAL KIT-6: OPTIMIZATION OF THE SYNTHESIS PROCEDURE AND ITS CATALYTIC APPLICATIONS' 4th International FEZA conference, September 2-2008, France.	Co-author
17	Balasamy Rabindran Jermy, Dal-Rae Cho, Kanattukara Vijayan Bineesh, Sang-Yun Kim, Dae-Won Park	Highly dispersed vanadium MCM-48 synthesized at room temperature for the oxidation of styrene' KIChe, Busan, December 12, 2007, South Korea.	Oral Presentation
18	Kanattukara Vijayan Bineesh, Dal-Rae Cho, Sang-Yun Kim, Balasamy Rabindran Jermy (2007)	Synthesis of metal doped Titanium Pillared Clay for the Selective Catalytic Oxidation of H <sub>2</sub> S' Proceedings of the 9th Cross Straits Symposium on Materials, Energy and Environmental Engineering, Pohang University of Science and Technology, November 21-22, South Korea.	Co-author
19	Balasamy Rabindran Jermy, Dal-Rae Cho, Kanattukara Vijayan Bineesh, Sang-Yun Kim, Dae-Won Park	Vanadium incorporated into MCM-48 mesoporous molecular sieve materials synthesized at room temperature' KIChe, Daejeon, October 26-2007, South Korea.	Oral Presentation
20	Dae-Won Park, Kanattukara Vijayan Bineesh, Dal-Rae Cho, Jin-Woo Lee, Balasamy Rabindran Jermy	Synthesis of Vanadia doped Titanium Pillared Clay for the Selective Catalytic Oxidation of H <sub>2</sub> S KIChe, Daejeon, October 26-2007, South Korea	Co-author
21	K. V. Bineesh, D.R. Cho, J.W. Lee, B. Rabindran Jermy and D.W. Park.	Vanadium-doped Tatiana-pillared Montmorillonite Clay for the Selective Catalytic Oxidation of H <sub>2</sub> S 14th International Symposium on Intercalation Compounds, June 12, 2007, Seoul, South Korea.	Co-author

22	Rabindran Jermy B. and Pandurangan A.	An effective heterogeneous H3PW12O40 supported MCM-41 for the synthesis of acetals and geminal diacetates', International Workshop on Advances in Catalysis, February 5, Varanasi, India.	Poster Presentation
23	Rabindran Jermy B. and Pandurangan A.	An efficient and green procedure for the preparation of acetals from aldehydes catalyzed by H3PW12O40 supported on MCM-41' National Conference on Pollution Abatement Through Technology Development, March 18-19, 2005, Anna University, Chennai-25,	Poster Presentation
24	Rabindran Jermy B. and Pandurangan A.	A highly efficient catalyst for the esterification of acetic acid using various alcohols', 17th National Symposium on Catalysis, January 18-20, 2005, CSMCRI, Bhavnagar, Gujarat, India.	Poster Presentation
25	Rabindran Jermy B. and Pandurangan A.	Effective synthesis of n-butyl acetate using Al-MCM-41 and zeolites', Chemists Meet, (A Regional Symposium in Chemistry), March 26-27, 2004, IIT, Chennai, India.	Poster Presentation
26	Rabindran Jermy B. and Pandurangan A.	Catalytic application of Al-MCM-41 in the synthesis of n-butyl acetate', National Workshop on Advances in Catalysis, January 6-7, 2004, Loyola College, Chennai, India.	Poster Presentation

#### EXPERIMENTAL/TECHNICAL SKILLS

<ul style="list-style-type: none"> <li>• Expert in design and synthesis of zeolites (bulk, nanosheets)</li> </ul>
<ul style="list-style-type: none"> <li>• Hydrothermal, impregnation, ion-exchange and steaming techniques.</li> </ul>
<ul style="list-style-type: none"> <li>• Mesoporous molecular sieves-based synthesis techniques</li> </ul>
<ul style="list-style-type: none"> <li>• Optimization of hydrothermal variables, metal doping techniques (impregnation, ion-exchange)</li> </ul>
<ul style="list-style-type: none"> <li>• Pore size modification using steaming, metalation, demetallation, desilication and dealumination.</li> </ul>
<ul style="list-style-type: none"> <li>• Developed a technique of mesopore generation using labile metal ions inside the zeolite framework</li> </ul>
<ul style="list-style-type: none"> <li>• Liposome modifications</li> </ul>
<ul style="list-style-type: none"> <li>• Drug delivery using Frank cell (Pearmagear, USA) and dialysis membrane.</li> </ul>
<ul style="list-style-type: none"> <li>• Preparation of Metal organic framework and zeolitic imidazolate framework, composite formation</li> </ul>
<ul style="list-style-type: none"> <li>• Insitu zeolite coating on medical implants using hydrothermal technique</li> </ul>
<ul style="list-style-type: none"> <li>• Designing of nanocomposites silica/carbon and silica/polymer based on chitosan and alginate.</li> </ul>
<ul style="list-style-type: none"> <li>• Expertise in synthesis of mesoporous aluminosilicates (such as MCM-41, MCM-48, SBA-15, SBA-</li> </ul>



16, KIT-5, KIT-6 and HMS).
<ul style="list-style-type: none"> <li>• Knowledge and expertise in small-scale and bulk synthesis of carbon template based mesoporous materials.</li> </ul>
<ul style="list-style-type: none"> <li>• Knowledge and expertise in tailoring the textural characteristics of TEOS and Silicalite coating.</li> </ul>
<ul style="list-style-type: none"> <li>• Expertise in carrying out vapor-phase and liquid phase heterogeneous catalytic reactions.</li> </ul>
<ul style="list-style-type: none"> <li>• Design of nanomaterials for Acidic/basic/oxidation reactions</li> </ul>
<ul style="list-style-type: none"> <li>• Expert in studying reactions using high/low pressure batch (Parr) reactors.</li> </ul>
<ul style="list-style-type: none"> <li>• Expertise especially in operation of Powder X-ray Diffractometer; Nitrogen Adsorption Measurements; FT-IR-pyridine adsorption; Carbon Content Analyzer.</li> </ul>
<ul style="list-style-type: none"> <li>• Expertise in operation of P3201 pilot plant XYTEL for toluene methylation (designed by UOP, Honeywell) for blank run testing, high-pressure testing (3-30 bar) at different WHSV.</li> </ul>
<ul style="list-style-type: none"> <li>• BTRS Jr reactor system (Fixed bed); Fluidized bed reactor system (Riser Stimulator); Temperature Programmed Desorption techniques (TPR/TPD).</li> </ul>

## REFERENCES

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I hereby declare that all the details I furnished above are true to the best of my knowledge.

**Place: Saudi Arabia**

**Signature**

Date: 09.01.2024

B. Rabindran Jermy