



## **ANEESH MATHEW, PhD**

Senior Executive,  
Torque Pharmaceuticals Pvt. Ltd.  
Jharmajri, Baddi,  
Himachal Pradesh, 173205, India.  
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### **Personal objective:-**

To find a position that challenges me and allows me to fulfil my full professional and personal potential by employing my abilities and research experience in a progressive intellectual and technological organization that values collaborative leadership, integrity, and honesty.

### **WORK EXPERIENCES**

<b>Senior Executive</b>	Torque Pharmaceuticals	Quality Control wing	2022-present
Assistant professor	Marian college (Autonomous)	Department of Chemistry	2021-2022
Assistant professor	Pavanatma College	Post-graduate Department of Chemistry	2019-2020
Postdoctoral Researcher	Geopolymer	<b>Korean Institutes of Science and Technology (KIST)</b>	2018
Research Professor	Korea CCS 2020 Project	<b>Chungnam National University,</b> South Korea (Prof. Churl-Hee Cho)	2017-2018
PhD Candidate	BK 21 PLUS Project	<b>Pusan National University,</b> South Korea (Prof. Chang-Sik Ha)	2011-2016
Technical officer	Resin Free Tinter	<b>Akzonobel Car Refinishes,</b> Mohali, India	2008-2010
Research Assistant	Open Frame Work Materials	<b>Mahatma Gandhi University,</b> India (Prof. Suresh Mathew)	2006-2008
Master Project	Magnetic Nano alloy	<b>National Chemical Laboratory,</b> India (Dr. Joy P. A.)	2006

### **EDUCATION**

PhD candidate	BK21 PLUS (Brain Korea 21)	Department of Polymer Science and Chemical Engineering, Busan, Republic of Korea.	2011-2016
<b>Doctoral dissertation</b>		“Metal Ion Adsorption and Drug Delivery Behaviors of Mesoporous Silica Materials”	

Master in Chemistry	Organic, Inorganic, Physical, and Polymer Chemistry	School of Chemical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India.	2004-2006
<b>Master dissertation</b>		“Synthesis and Characterization of Magnetic Stable ‘Fe’ and ‘FePt’ Nanoparticles’	
Bachelor in Chemistry	Chemistry, Physics, Mathematics	Pavanatma College, Mahatma Gandhi University, Kerala, India.	2001-2004

## QUALIFICATIONS

### COMPUTER SKILLS

Experience in using MS office (Word, Excel, PowerPoint), Chem Draw, SigmaPlot, Origin Lab, IR solution, MestRec etc. SciFinder.

### TECHNICAL SKILLS

Hands on experience in operation and data analysis of

Membrane Pervaporation

X-Ray diffractometer (XRD, Bruker AXN)

FTIR machine (FT-IR, JASCO FTIR 4100),

UV-Vis Spectrometer (U-2010, HITACHI Co),

Lab basket mill handling (NETZSCH),

Vibrational Scanning Magnetometer, (MODEL P525: PPMS-VSM)

Scanning Electron Microscopy (Mini-SEM, Nanoeye)

### LANGUAGE SKILLS

Malayalam, English, Hindi, (read, write, speak), Tamil (speak), Korean (basic)

### DOCUMENTATION SKILLS

**Total Publication** (Conference and International) = **17** (15 SCI Journal Articles)

**Manuscript Under preparation = 7**

United States Patent No. **US 10,029,231B2** – “Organic - Inorganic Hybrid Nanoporous Silica Material and Method for Preparing Same”.

### GOOGLE SCHOLAR ID

<https://scholar.google.co.in/citations?hl=en&user=ENiup8IAAAAJ>

## HONOURS AND ACHIEVEMENTS

- **Senior Executive**, in a leading pharmaceutical company,
- Worked as a **Post-doctoral fellow** at Korean Institutes of Science and Technology (**KIST**),
- Worked as a **Research Professor**, Reaction & Separation Nanomaterials Laboratory (**RSNL**),
- United States Patent filled (No. **US 10,029,231B2**),
- **Doctoral degree** in chemistry from Pusan National University, **Republic of Korea**,
- **ETS TOEIC** percentile Rank (During 2016 to 2017),
- **Accounts committee member** in Mahatma Gandhi University students Union during the year 2004-2005,
- “**B certificate**” holder of National Cadet Corps during the graduation period and attended many camps conducted by Army.

## Conference Activity/Participation.

### Oral Presentation

#### International:-

- 1) “*Recovery of metal ions using Pyridine ligand Functionalized Mesoporous Material*”, “**The 1<sup>st</sup> International Workshop on Nanogrid Materials (IASAMP)**”, 2011 November 3-5.

#### National:-

- 1) “*The effect of pH responsive capping over spherical MCM-41 in the delivery of 5-Fluorouracil*”, “**2014 BK21 plus Southeast Chemical Technology Agency Workshop**”, 2014 January 26.

## WORK INTERESTS

Raw material testing according to pharmacopoeia, Material Chemistry, Pigment & Resin Technology, Silica for coating application (both hydrophilic and hydrophobic coating), Zeolite materials for membrane application, Gas permeation experiments, Mesoporous materials and its application, Nanostructured Materials, Magnetic or Metal particle and its coating applications, Synthesis and characterization of magnetic core shell nanoparticles, Open framework solids, Solid State Chemistry.

### PhD Thesis

“**Metal Ion Adsorption and Drug Delivery Behaviors of mesoporous silica materials**”, Department of Polymer Science and Chemical Engineering, Busan, South Korea, supervisor **Prof. Chang-Sik Ha**.

### Master Thesis

“**Synthesis and characterization of magnetic stable ‘Fe’ and ‘FePt’ nanoparticles**”, Physical and Materials Chemistry Division, National chemical Laboratory (NCL), Pune, India, supervisor **Dr. P. A Joy**.

### List of publications

- 1) Zhenzhen Wang, **Aneesh Mathew**, Hongzhi Liu, “**Silsesquioxane-based porous polymer derived from organic chromophore with AIE characteristics for selective detection of 2,4-dinitrophenol and Ru<sup>3+</sup>**”, *Polymer* 248 (2022) 124788, (Publisher: Elsevier B.V., **Impact Factor: 4.60**) <https://doi.org/10.1016/j.polymer.2022.124788>
- 2) Surendran Parambadath, **Aneesh Mathew**, Anandhu Mohan, Chang-Sik Ha, “**Chelation dependent selective adsorption of metal ions by Schiff Base modified SBA-15 from aqueous solutions**”, “*Journal of Environmental Chemical Engineering*” 8 (2020) 104248, (Publisher: Elsevier B.V., **Impact Factor: 7.70**) <https://doi.org/10.1016/j.jece.2020.104248>
- 3) Surendran Parambadath, **Aneesh Mathew**, Su Yeon Kim, S S Park, Chang-Sik Ha, “**Fe<sup>3+</sup>-bis-ethylenediamine complex bridged periodic mesoporous organosilica for the efficient removal of arsenate and chromate**”, “*Pure and Applied Chemistry*” 90 (2018) 5 (The Scientific Journal of IUPAC, **Impact factor = 2.45**) <https://doi.org/10.1515/pac-2017-0909>
- 4) **Aneesh Mathew**, Surendran Parambadath, Mary Jenisha Barnabas, Su Yeon Kim, Dong Won Kim, Kummara Madhusudana Rao, Sung Soo Park, Chang-Sik Ha, “**Snap-top nanocontainer for selective recovery of nickel ions from seawater**”, “*Microporous and Mesoporous Materials*” 238 (2017) 27-35. (Publisher: Elsevier B.V., **Impact factor = 5.20**) <http://dx.doi.org/10.1016/j.micromeso.2016.04.033>
- 5) **Aneesh Mathew**, Surendran Parambadath, Su Yeon Kim, Hyung Min Ha, Sung Soo Park, Chang-Sik Ha, “**Diffusion mediated selective adsorption of Zn<sup>2+</sup> from artificial seawater by MCM-**

- 41", "*Microporous and Mesoporous Materials*" 229 (2016) 124-133. (Publisher: Elsevier B.V., **Impact factor = 5.2**) <http://dx.doi.org/10.1016/j.micromeso.2016.04.028>
- 6) Aneesh Mathew, Surendran Parambadath, Mary Jenisha Barnabas, Hyun Jin Song, Jae-Sung Kim, Sung Soo Park, Chang-Sik Ha, "**Rhodamine 6G assisted adsorption of metanil yellow over succinamic acid functionalized MCM-41**", "*Dyes and Pigments*" 131 (2016) 177-185. (Publisher: Elsevier B.V., **Impact factor = 5.12**) <http://dx.doi.org/10.1016/j.dyepig.2016.04.007>
- 7) Mary Jenisha Barnabas, Surendran Parambadath, Aneesh Mathew, Sung Soo Park, Ajayan Vinu, Chang-Sik Ha, "**Highly efficient and selective adsorption of In<sup>3+</sup> on pristine Zn/Al layered double hydroxide (Zn/Al-LDH) from aqueous solutions**", "*Journal of Solid State Chemistry*" 233 (2016) 133-142. (Publisher: Elsevier B.V., **Impact factor = 3.66**) <http://dx.doi.org/10.1016/j.jssc.2015.10.001>
- 8) Surendran Parambadath, Aneesh Mathew, Mary Jenisha Barnabas, Kummara Madhusudana Rao, and Chang-Sik Ha, "**Periodic mesoporous organosilica (PMO) containing bridged succinamic acid groups as a nanocarrier for sulfamerazine, sulfadiazine and famotidine: Adsorption and release study**", "*Microporous and Mesoporous Materials*" 225 (2016) 174-184. (Publisher: Elsevier B.V., **Impact factor = 5.20**) <http://dx.doi.org/10.1016/j.micromeso.2015.12.016>
- 9) Surendran Parambadath, Aneesh Mathew, Mary Jenisha Barnabas, Su Yeon Kim, Sung Soo Park and Chang-Sik Ha, "**Concentration-dependant selective removal of Cr(III), Pb(II) and Zn(II) from aqueous mixtures using 5-methyl-2-thiophenecarboxaldehyde Schiff base-immobilised SBA-15**", "*Journal of sol-gel science and technology*" 79 (2016) 426-439. (Publisher: Springer, **Impact factor = 2.60**) <https://link.springer.com/article/10.1007/s10971-015-3923-x>
- 10) Aneesh Mathew, Surendran Parambadath, Sung Soo Park, Chang-Sik Ha, "**Adsorption of Cr(III) ions using 2-(ureylenemethyl)pyridine functionalized MCM-41**", "*Journal of Porous Materials*" 22 (2015) 831-842. (Publisher: Springer., **Impact factor = 2.52**) <https://link.springer.com/article/10.1007/s10934-015-9956-2>
- 11) Surendran Parambadath, Aneesh Mathew, Mary Jenisha Barnabas, Chang-Sik Ha, "**A pH-responsive drug delivery system based on ethylenediamine bridged periodic mesoporous organosilica**", "*Microporous and Mesoporous Materials*" 215 (2015) 67-75. (Publisher: Elsevier B.V., **Impact factor = 5.20**) <http://dx.doi.org/10.1016/j.micromeso.2015.05.027>
- 12) Surendran Parambadath, Aneesh Mathew, Sung Soo Park, Chang-Sik Ha, "**Pentane-1,2-dicarboxylic acid functionalized spherical MCM-41: A simple and highly selective heterogeneous ligand for the adsorption of Fe<sup>3+</sup> from aqueous solutions**", "*Journal of Environmental Chemical Engineering*" 3 (2015) 1918-1927. (Publisher: Elsevier B.V., **Impact Factor = 7.97**) <http://dx.doi.org/10.1016/j.jece.2015.07.003>
- 13) Aneesh Mathew, Surendran Parambadath, Sung Soo Park, Chang-Sik Ha, "**Hydrophobically modified spherical MCM-41 as nanovalve system for controlled drug delivery**", "*Microporous and Mesoporous Materials*" 200 (2014) 124-131. (Publisher: Elsevier B.V., **Impact factor = 5.20**) <http://dx.doi.org/10.1016/j.micromeso.2014.08.033>
- 14) Madhappan Santha Moorthy, Sung Soo Park, Aneesh Mathew, Sang Hyun Lee, Won-Ki Lee, Chang-Sik Ha, "**Amidoxime Functionalized SBA-15 for Selective Adsorption of Li<sup>+</sup> ions**",

“*Science of Advanced Materials*” 6 (2014) 1611-1617. (**Impact factor = 1.47**)  
<https://doi.org/10.1166/sam.2014.1819>

- 15) Madhappan Santha Moorthy, Pradip Kumar Tapaswi, Sung Soo Park, **Aneesh Mathew**, Hun-Jeong Cho, Chang-Sik Ha, “**Ion-imprinted mesoporous silica hybrids for selective recognition of target metal ions**”, “*Microporous and Mesoporous Materials*” 180 (2013) 162-171. (Publisher: Elsevier B.V., **Impact factor = 5.20**)  
<http://dx.doi.org/10.1016/j.micromeso.2013.06.010>

### Conference publications

- 16) **Aneesh Mathew**, Surendran Parambadath, “**Metal Adsorption Property of Succinamic Acid Functionalized MCM-41**”, “*SSRG International Journal of Applied Chemistry*”, 5 (2018) 6-14, ISSN: 2393-9133.
- 17) **Aneesh Mathew**, Surendran Parambadath, “**Thiophene based schiff base functionalized mesoporous silica for the selective separation of mercury ions from water**”, “*New Numbers and Letters – An interdisciplinary research Journal*”, 8 (2017) 5-10, ISSN 2320-8317.

### Personal Details

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Age, Sex & Date of birth 38, Male, 26<sup>th</sup> December 1983

Married Status Married

Wife Dr. Remyamol P. R.,

Baby Girl Olive Mary Aneesh (DB:- 21 April 2017)

Baby Boy Ostin Mathew Aneesh (DB:- 27 October 2020)

Nationality Indian

### REFERENCES

**Dr. Renjith P Johnson**, Assistant Professor, Yenepoya Research Centre, Yenepoya University, Mangalore, Karnataka, India. Tel: +91-9645812331.

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**Dr. Aneesh Mathew**