

PUBLICATIONS

1. Patents

SN	The following have been extracted from Ph.D. and/or MS	Status
[P01]	Stöver, H. D. H., Burke, N. A. D. Mazumder, M. A. J. , Shen, F. and Potter, M. A., " <i>Hydrogel with covalently cross-linked core</i> " US Patent 2011.011.033A1, 2011 .	Published
<u>Work after Ph.D. (Prior to joining at KFUPM)</u>		
[P02]	Sheardown, H. Fitzpatrick, S. and Mazumder, M. A. J. " <i>Biodegradable polymer system</i> " US Patent 2011. 028. 8062A1, 2011 .	Published
<u>Work after joining at KFUPM as an Assistant Professor</u>		
[P03]	Ali, S. A., Mazumder, M. A. J. and Al-Muallem, H. A. "Novel mild steel corrosion inhibitor compounds" US Patent 2016. 011. 5598A1, 2016 .	Published
[P04]	Mazumder, M. A. J. , Ali, S. A. and Al-Muallem, H. A. " <i>2-(p-alkoxyphenyl)-2-imidazolines and their use as corrosion inhibitors</i> ". US patent Application # 14/727, 393 (June 1, 2015).	Pending
[P05]	Mazumder, M. A. J. , Al-Muallem, H. A., Ali, S. A. and Estaitie M. " <i>cyclopolymer containing residues of methionine and synthesis and uses thereof</i> ". US patent Application # 14/957, 150 (December 2, 2015).	Pending

2. Refereed Journal Publications

SN	The following have been extracted from Ph.D. and/or MS	Impact Factor
[J01]	Ali, S. A., Al-Muallem, H. A. and Mazumder, M. A. J. " <i>Synthesis and solution properties of a new sulfobetaine/ sulfur di oxide copolymer and its use in aqueous two-phase polymer systems,</i> " Polymer. Vol. 44 (2003), pp. 1671-1679.	3.586
[J02]	Ali, S. A., Mazumder, M. A. J. and Al-Muallem, H. A. " <i>Synthesis and solution properties of a new pH responsive polymer containing amino propane</i> "	3.113

sulphonic acid residues,” Journal of Polymer Science. Part A. Polymer Chemistry. Vol. 41 (2003), pp. 172-184.

- [J03] **Mazumder, M. A. J.**, Umar, Y. and Ali, S. A. “*Synthesis and Solution properties of a new poly (electrolyte-zwitterions)*,” Polymer. Vol. 45 (2004), pp. 125-132. 3.586
- [J04] Burke, N. A. D., **Mazumder, M. A. J.**, Hanna, M. and Stöver. H. D. H. “*Polyelectrolyte complexation between poly(methacrylic acid, sodium salt) and poly(diallylammonium chloride) or poly[2-(methacryloyloxyethyl) trimethylammonium chloride]*,” Journal of Polymer Science. Part A. Polymer Chemistry. Vol. 44 (2007), pp. 4129-4143. 3.113
- [J05] **Mazumder, M. A. J.**, Shen, F., Burke, N. A. D., Potter, M. A. and Stöver. H. D. H. “*Self-cross linking polyelectrolyte complexes for therapeutic cell encapsulation*,” Biomacromolecules. Vol. 9(9) (2008), pp. 2292-2300. 5.583
- [J06] Shen, F., **Mazumder, M. A. J.**, Burke, N. A. D., Stöver. H. D. H. and Potter, M. A. “*Mechanically enhanced microencapsulated cellular gene therapy*,” Journal of Biomedical Material Research, Part B. Applied Biomaterials. Vol. 90 B(1) (2009), pp. 350-361. 2.881
- [J07] **Mazumder, M. A. J.**, Burke, N. A. D., Shen, F., Potter, M. A. and Stöver. H. D. H. “*Core cross linked alginate microcapsules for cell encapsulation*,” Biomacromolecules. Vol. 10(6), (2009), pp. 1365-1373. 5.583
- [J08] **Mazumder, M. A. J.** “*Bio-encapsulation for the immune-protection of therapeutic cells*,” Advanced Materials Research. Vol. 810 (2013), pp. 1-39. *ERA: B

Work after Ph.D. (Prior to joining at KFUPM)

- [J09] Fitzpatrick, S., **Mazumder, M. A. J.**, Lasowski, F., Fitzpatrick, L. E. and Sheardown. H. “*PNIPAAm- grafted- collagen as an injectable in situ gelling, bioactive drug delivery scaffolds*,” Biomacromolecules. Vol. 11 (2010), 2261-2267. 5.583
- [J10] Krishnamoorthy, S., Haria, M., Fortier-McGill, B. E., **Mazumder, M. A. J.**, Robinson, E. I., Xia, Y., Burke, N. A. D. and Stöver. H. D. H. “*High T_g Microspheres by Dispersion Copolymerization of N-Phenylmaleimide with Styrenic or Alkyl Vinyl Ether Monomers*,” Journal of Polymer Science. Part A. Polymer Chemistry. Vol. 49 (2011) pp. 192-202. 3.113

- [J11] Li, J., **Mazumder, M. A. J.**, Stöver, H. D. H., Hitchcock, A. P. and Shirley, I. M. “*Polyurea Microcapsules: Surface Modifications and Capsule Size Control.*” Journal of Polymer Science. Part A. Polymer Chemistry. Vol. 49 (2011) pp. 3038-3047. 3.113
- [J12] **Mazumder, M. A. J[#]**, Fitzpatrick, S.,[#] Muirhead, B. and Sheardown, H. “*Cell-Adhesive Thermo-Gelling PNIPAAm / Hyaluronic Acid Cell Delivery Hydrogels for Non-Invasive Retinal Therapeutics.*” Journal of Biomedical Materials Research. Part A, Vol. 100A (2012), pp. 1877-1887. [[#]**These authors contributed equally to this work**]. 3.263

Work after joining at KFUPM as an Assistant Professor

- [J13] Fitzpatrick, S.,[#] **Mazumder, M. A. J[#]**, Muirhead, B. and Sheardown, H. “*Development of an Injectable, Resorbable Drug-Releasing Copolymer Scaffold for Long-term Ophthalmic Delivery.*” Acta Biomaterialia. Vol. 8(7) (2012), pp. 2517-2528. [[#]**These authors contributed equally to this work**]. 6.008
- [J14] Song, Z, Pelletier, C., Qi, Y., Ahmed, J., Varshney, S. K. and **Mazumder, M. A. J***. “*Synthesis and Thermal Properties of Triblock Copolymers of Methyl methacrylate using combination of Anionic and Controlled Radical Polymerization: Poly(methacryl methacrylate) center block bearing different microstructures.*” E-Polymers. Vol. 67 (2012), pp. 1- 15. 0.812
- [J15] Fitzpatrick, S. D., Fitzpatrick, L. E., Thakur, A., **Mazumder, M. A. J.** and Sheardown, H. “*Temperature sensitive polymers for drug delivery.*” Expert Review of Medical Devices. Vol. 9(4) (2012), pp. 339-351. 1.796
- [J16] Zahir, M. H., AlHooshani, K., **Mazumder, M. A. J.** and Suzuki. T. “*Multicomponent catalysts with spinel structure for the selective reduction of nitrogen oxide by ethylene in lean exhaust gas streams.*” Kinetics and Catalysis. Vol. 54(5) (2013), pp. 578-585. 0.632
- [J17] Al-Ahmed, A., Bahaidarah, H. M. and **Mazumder, M. A. J***. “*Biomedical perspective of polyaniline based biosensors.*” Advanced Materials Research. Vol. 810 (2013), 173- 216. *ERA: B
- [J18] **Mazumder, M. A. J***. “*Gold Nanotubes from Organic Scaffolds for Biomedical Applications.*” Materials Science Forum. Vol. 754 (2013), 109-119. *ERA: C
- [J19] Ali, S. A., Al-Muallem, H. A. and **Mazumder, M. A. J.** “*Coexistence curves of aqueous two-phase systems of some pH- responsive homo- and copolymers*” 1.835

of 3-(diallylammnio)propane-1-sulfonate and urethanized poly(ethanol) or poly(oxyethylene), "Journal of Chemical and Engineering Data. Vol. 58 (2013) 2574-2585.

- [J20] **Mazumder, M. A. J***. "Polyelectrolyte complexation between cationic and anionic polyelectrolytes with complementary polymer-bound reactive groups of amine and acetoacetate: effect of mono- and divalent salts," Iranian Polymer Journal. Vol. 23 (2014) pp. 445-455. 1.684
- [J21] **Mazumder, M. A. J.**, Al-Muallem, H. A., Faiz, M. and Ali, S. A. "Design and synthesis of a novel class of inhibitors for mild steel corrosion in acidic and carbon dioxide-saturated saline media," Corrosion Science. Vol. 87 (2014), 187-198. 5.154
- [J22] **Mazumder, M. A. J***, Zahir, M. H. and Zaman, S. F. "Advanced Materials for Gene Delivery," Advanced Materials Research. Vol. 995 (2014) pp. 29-47. *ERA: B
- [J23] **Mazumder, M. A. J***, Al-Muallem, H. A. and Ali, S. A. "The effects of N-pendants and electron-rich amidine motifs in 2(p-alkoxyphenyl)-2-imidazolines on mild steel corrosion in CO₂-saturated 0.5M NaCl." Corrosion Science. Vol. 90 (2015) pp. 54-68. 5.154
- [J24] Al-Muallem, H. A., **Mazumder, M. A. J.**, Estaitie, M. K. and Ali, S. A. "A Novel Cyclopolymer Containing Residues of Essential Amino Acid Methionine: Synthesis and Application," Iranian Polymer Journal. Vol 24 (2015), pp. 541-547. 1.684
- [J25] **Mazumder, M. A. J***, Nazal, M. K., Faiz, M. and Ali, S. A. "Imidazolines containing single-, twin- and triple-tailed hydrophobes and hydrophilic pendants (CH₂CH₂NH)_nH as inhibitors of mild steel corrosion in CO₂-0.5 M NaCl." RSC Advances. Vol. 6 (2016), 12348-12362. 3.289
- [J26] **Mazumder, M. A. J***. "Synthesis and evaluation of new isoxazolidine derivatives of aldehyde as corrosion inhibitors for mild steel corrosion in acidic and saline media," International Journal of Electrochemical Science. Vol. 11 (2016) pp. 4050-4075. 1.692
- [J27] Chowdhury, S., **Mazumder, M. A. J.** and Husain, T. "Predicting bromide incorporation in a chlorinated indoor swimming pool." Environmental Science and Pollution Research. Vol. 23(12) (2016), pp. 12174-12184. 2.760
- [J28] Ali, S. A., Haladu, S. A., **Mazumder, M. A. J.** and Al-Muallem, H. A. "Synthesis of a ter- and tetrapolymer using monomers of diallylamine salts and

SO₂ and their application as antiscalants." Iranian Polymer Journal. Vol. 25(9) (2016), 747-756.

- [J29] Chowdhury, S., **Mazumder, M. A. J.**, Al-Attas, O. and Husain, T. 3.976
"Heavy metals in drinking water in the developing countries: Occurrences, Implications and Future Needs." Science of the Total Environment. Vol. 569-570 (2016), pp. 476- 488.
- [J30] **Mazumder, M. A. J.*.** *"Polydimethylsiloxane substrates with surfaces decorated by immobilized hyaluronic acids of different molecular weight for biomedical applications."* Arabian Journal for Science and Engineering. **Accepted**, November 3, 2016. Ms. ID. # AJSE-D-16-02441 0.728

***ERA:** Excellence in Research for Australia

3. Refereed Conference Publications

SN	The following have been extracted from Ph.D. and/or MS
[RC1]	Stöver, H. D. H., Mazumder, M. A. J. , Burke, N. A. D., Shen, F. and Potter. M. A. <i>"Self-cross linkable polymers for cell immuno-Isolation,"</i> presented at 235 th American Chemical Society National Meeting, New Orleans, LA, USA. April 6-10, 2008, published in Polymer Preprints, Vol. 49(1) (2008), pp. 877-878.
[RC2]	Mazumder, M. A. J. , Burke, N. Shen, F., Potter, M. and Stover. H. D. H <i>"Ca Alginate Composite Microcapsules for Cell Encapsulation,"</i> presented at 236 th American Chemical Society National Meeting, Philadelphia, PA, USA. August 17-21, 2008, published in Polymer Preprints. Vol. 49(2) (2008) pp. 1038-1039.
[RC3]	Mazumder, M. A. J. <i>"Quantitative determination of mechanical stability of microcapsule,"</i> presented at 9 th International Conference & Exhibition on Chemistry in Industry, Manamah, Bahrain, November 2-6, 2013, published in CHEMINDIX proceedings, (2013), Preprint Paper (x), (3 pages).

Work after Ph.D. (Prior to joining at KFUPM)

- [RC4] **Mazumder, M. A. J.**, Fitzpatrick, S., Muirhead, B. and Sheardown, H. *"Degradable Thermo-responsive Polymeric Hydrogel Biomaterials as Non-invasive Cell & Drug Delivery Vehicles for Retinal Degenerative Diseases,"* CBS Paper No. LSC 3 presented at 29th Canadian

Biomaterials Society Meeting, Vancouver, BC, Canada, June 1-4, 2011, published in CBS proceedings, (2011), pp. 71-71.

- [RC5] **Mazumder, M. A. J.**, Fitzpatrick, S., Muirhead, B. and Sheardown, H. “*Transparent, thermoresponsive hydrogels for ophthalmic drug delivery*,” presented at 242nd American Chemical Society National Meeting, Denver, Colorado, USA. August 28- September 1, 2011, published in Polymer Preprints. Vol. 52(2) (2011), pp. 346-347.
- [RC6] Perry, R. E., **Mazumder, M. A. J.**, Fitzpatrick, S. and Sheardown, H. “*Development and evaluation of PNIPAAm-based material for injectable, thermally responsive accommodating intraocular lenses*,” presented at ARVO Annual Meeting, May 6 – 10 in Fort Lauderdale, Florida, USA, published in Investigative Ophthalmology and Visual Science. Vol. 53(14) (2012), pp. 6676. [Impact Factor: 3.427].
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