PROMOTION DOSSIER

of

Dr. Mohammad Abu Jafar Mazumder

Submitted for promotion to the rank of
Associate Professor

Chemistry Department
King Fahd University of Petroleum and Minerals
Dhahran 31261, Saudi Arabia

TABLE OF CONTENTS

ITEM Page No

1- SUMMARY OF EXPERIENCE RECORD (RESUME)

1.1- PERSONAL

Name	:	Mohammad Abu Jafar Mazumder
Date of Birth	:	October 1, 1972
Place of Birth	:	Comilla, Bangladesh
Marital Status	:	Married
Nationality	:	Canadian
Address	:	King Fahd University of Petroleum and Minerals Chemistry Department KFUPM P. O. Box 1683 Dhahran 31261, Saudi Arabia Tel +966-13-860-7836 (*Office*) Mobile +966-551497827 Fax +966-13-860-4277 E-mail jafar@kfupm.edu.sa Website http://faculty.kfupm.edu.sa/CHEM/jafar/
Fluent Languages	:	English, Bengali, Hindi, Urdu.

1.2- EDUCATION

2003-2009 **Doctor of Philosophy (Ph.D.)** in Chemistry (Polymer), McMaster University, Hamilton, Ontario, Canada

Title of thesis: "Polyelectrolytes for Therapeutic Cell Encapsulation".
Supervisor: Prof. Harald D. H. Stöver.

2001-2003 **Master of Science (M. Sc.)** in Chemistry (Polymer), King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

Title of thesis: "Synthesis and Solution Properties of Some Polysulfobetaines".
Supervisor: Prof. S. A. Ali

1994-1996 **Master of Science (M. Sc.)** in Chemistry (Physical), Aligarh Muslim University, Aligarh, UP, India

Title of Project: "Studies on Selected Coordination Compounds in Solid State".
Supervisor: Prof. Afaq Ahmed

1991-1994 **Bachelor of Science** in Chemistry, Aligarh Muslim University, Aligarh, UP, India

1.3- SPECIALIZATION

Polymer Chemistry and Organic Materials (Materials design, synthesis and characterization for application in biomedical, surface modifications/coating and corrosion)

1.4- EMLOYMENT

Feb. 2012 – till date	**Assistant Professor** Chemistry Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran 31261, Saudi Arabia
Aug. 2011 – Feb. 2012	**Research Scientist** Polymer Source Inc., Montreal, QC, Canada
Sept. 2009 – Aug. 2011	**Post-Doctoral Researcher** Chemical Engineering Department, McMaster University, Hamilton, Ontario, Canada
Sept. 2003 – Aug. 2009	**Research and Teaching Assistant** Chemistry Department, McMaster University, Hamilton, Ontario, Canada
Sept. 2001 – July 2003	**Research and Teaching Assistant** Chemistry Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran 31261, Saudi Arabia
May 2001 – Sept. 2001	**Lecturer** Chemistry Department, Jaipurhat Govt. University College, Jaipurhat, Bangladesh
Aug. 2000 – May 2001	**Assistant Director** Foreign Exchange Policy Department, Bangladesh Bank, Bangladesh
April 2000 – Aug. 2000	**Chemist** Quality Control Department, Qatar Steel Company, Qatar
Oct. 1997 – April 2000	**Analyst** Quality Control Department, Sonear Laboratories Ltd., Dhaka, Bangladesh
Sept. 1996 – Sept. 1997	**Chemist** Quality Control Department, H. A. S. Beverage Ind. Ltd., Comilla, Bangladesh

1.5- TRAINING

1. "Microsoft Exchange and Lync" Messaging and Collaboration Platforms, jointly organized by Microsoft and ITC, KFUPM on September 11, 2012
2. Effective Networking Certification, organized by MITACS, Canada on October 15, 2010
3. Intellectual Property and Improvisation, organized by 20/20 NSERC Network, Canada on August 25, 2010
4. Project Management Certification, organized by MITACS, Canada on June 17-18, 2010
5. Environmental and Occupational Health Safety Training- Workplace Hazardous Materials Information System (WHMIS), Slips, Trips & Falls, Fire Safety, Ergonomics, Chemical Handling and Spills, Asbestos awareness, due diligence, Health and safety orientation, Bio-safety, Lab safety and Gas cylinder training in EOHSS time frame (2003-2009)- jointly organized by McMaster University and Hamilton Health Sciences, Canada.
6. Electron Microscopy, organized by Microscopical Society of Canada, Ontario section on February 9, 2007.

1.6- AWARDS

1. CBS Conference Travel Award- Canadian Biomaterials Society, Canada (2011)
2. MITACS-Postdoctoral Fellowship- Govt. of Ontario and NSERC, Canada (2010-2011)
3. Graduate Studies Scholarship- McMaster University, Hamilton, ON, Canada (2003-2009)
4. Graduate Merit Scholarship - Aligarh Muslim University, UP, India (1994-1996)
5. Undergraduate & Graduate Gold Medal – Aligarh Muslim University, UP, India (1994, 1996)
6. University Gold Medal – Aligarh Muslim University, UP, India (1994)
7. Cultural Exchange Scholarship for undergraduate studies - Government of India (1991-1994)
8. Education Board Scholarship- Government People's Republic of Bangladesh (1988-1990)

1.7- PROFESSIONAL MEMBERSHIPS

- Member, American Chemical Society (ACS)
- Member, Saudi Arabian International Chemical Sciences Chapter of ACS (SAICS-ACS)
- Member, Canadian Society for Chemistry (CSC)
- Member, Canadian Biomaterials Society (CBS)

- Member, Bangladesh Chemical Society (BCS)
- Member, International Society for the Philosophy of Chemistry (ISPC).

2- TEACHING

2.1- COURSES TAUGHT

2.1.1 Undergraduate Courses Taught at KFUPM, Dhahran, KSA (2012-2016)

- CHEM 101 General Chemistry I Lecture and Recitation
- CHEM 201 Organic Chemistry I Lecture and Laboratory
- CHEM 202 Organic Chemistry II Lecture

2.1.2 Graduate Courses Taught at KFUPM, Dhahran, KSA (2012-2016)

- CHEM 537 Polymer Synthesis Lecture

2.1.3 Undergraduate Courses Taught at McMaster University, Hamilton, ON, Canada (2003-2009)

- CHEM 1AO3 Introductory Chemistry I Laboratory and Tutorial
- CHEM 1EO3 General Chemistry for Engineering I Laboratory and Tutorial
- CHEM 20A3 Organic Chemistry I Laboratory and Tutorial
- CHEM 20B3 Organic Chemistry II Laboratory and Tutorial

2.2- COURSE DEVELOPMENT

- Proposed new course specification, course outline, books and course learning outcomes for "**CHEM 633 Polymeric Drug Delivery Systems**" course, 2014-2015
- Proposed new course specification, course outlines, books and course learning outcomes for "**CHEM 539 Chemistry of Organic Materials**" course, 2014-2015.

2.3- STUDENT ADVISING (ACADEMIC)

▪ Taleb A. Al Khamees	201431820	Freshman	BS Chemistry
▪ Mohammed A. Al Dkhel	201463940	Freshman	BS Industrial Chemistry
▪ Mohammad M. Al Hrthy	201516730	Sophomore	BS Chemistry
▪ Lipiar Khan M. Goni	201506730	Master	MS Chemistry

3- MASTER AND DOCTORAL STUDENT SUPERVISION

3.1- THESIS/ DISSERTATION SUPERVISION AND ADVISING

Student Name	Dissertation Title	Degree	Role	Status	Year
Ibrahim Yahia Yaagoob Mohamed	Alternate Cyclocopolymerization: Synthesis of a novel class of ionic polymers and their applications	PhD	Co-Supervisor	Ongoing	2018
Lipiar Khan Mohammad Osman Gani	A Novel Class of Ionic Polymers Containing Amino Acid Residues of Cysteine and Methionine as Green Corrosion Inhibitors and Antiscalants	MS	Supervisor	Ongoing	2017

3.2- THESIS/ DISSERTATION COMMITTEE MEMBER

Student Name	Dissertation Title	Degree	Role	Status	Year
Mokhtar Sayed Mohamed	Calcium carbonate Scale Inhibition by Non-chemical Methods	MS	Member	Completed	2015
Gaddafi Ibrahim Dammaliki	Adsorptive Evaluation of Nanoparticles Loaded Carbon Derived from Used Tires	MS	Member	Completed	2015

4- RESEARCH

4.1- RESEARCH INTERESTS

- Designing Polymeric Materials
- Polymer Synthesis and Characterization
- Biomaterials
- Polymeric Nano-composite
- Biomedical Engineering
- Bulk and Surface Modifications/ Coatings
- Corrosion.

4.2- PROJECTS

4.2.1- Sponsored Research Projects

SN	Title of the Project and Funding Agency	Role	Status
[FP1]	Imidazoline and Isoxazolidine in the inhibition of mild steel corrosion in oil and gas industries, Funded by DSR, KFUPM, Project # IN121036 (70,070 SAR).	P.I.	Completed
[FP2]	Proposed polymers as kinetic hydrate inhibitors, Funded by Saudi Aramco, Project # CRP2256 (456,550 SAR).	Co-I	Completed
[FP3]	Model- based exposure and risk analysis for disinfection by products in swimming pool, Funded by NSTIP-KACST, Project # 12-WAT2402-04, (1,556,000 SAR).	Co-I	Completed
[FP4]	Multilayered polyelectrolyte coated alumina, silica and carbon for the removal of heavy metals and organic contaminants: A novel protocol, Funded by KACST, Project # AR-32-99, (833,000 SAR).	Co-I	Ongoing
[FP5]	A Novel Class of Ionic Polymers Containing Amino Acid Residues of Cysteine and Methionine as Green Corrosion Inhibitors and Antiscalants, Funded by DSR, KFUPM, Project # 131047 (306,570 SAR).	P.I.	Ongoing
[FP6]	Effect of water stagnation in plumbing system on human health risk from heavy metals in tap water, Funded by DSR, KFUPM, Project # RG1409-1, RG1409-2 (310,650 SAR).	Co-I	Ongoing
[FP7]	National Inventory of anthropogenic emission sources and removal by sinks of greenhouse gases for the kingdom of Saudi Arabia, Funded by Saudi Aramco, Project # PN-CEW 2427(6,166,997 SAR).	Co-I	Ongoing

4.2.2- Unsponsored Research Projects

SN	Title of the Project	Role	Status
[UFP1]	Synthesis and Characterization of Modified PDMS Surface for Biomedical Application.	P.I.	Ongoing (Published one ISI journal paper)

4.2.3- Research Proposals

SN	Title of the Project and Funding Agency	Role	Status
[FP8]	Assembly of a multiple functional motifs in a novel class of ionic polymers: Their syntheses and applications, Full proposal Submitted to NSTIP-KACST (711,000 SAR).	Co-I	Under Review
[FP9]	Preparation and Evaluation of Synthetic Polymeric Composite Membrane for the Removal of Metal ions from Waste Water, Full proposal Submitted to DSR, KFUPM (188,800 SAR).	P.I.	Under Review
[FP10]	MWCNT grafted long chain fatty acids/fatty alcohols: A Novel Approach to have Higher Thermal Conductivity in organic PCMs, Full proposal Submitted to DSR, KFUPM (176,600 SAR).	Co-I	Under Review

4.3- PUBLICATIONS

4.3.1- 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., *"Hydrogel with covalently cross-linked core"* 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.** *"Biodegradable polymer system"* US Patent 2011. 028. 8062A1, **2011**.	Published

Work after joining at KFUPM as an Assistant Professor

[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. *"2-(p-alkoxyphenyl)-2-imidazolines and their use as corrosion inhibitors".* 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. "*cyclopolymer containing residues of methionine and synthesis and uses thereof*". US patent Application # 14/957, 150 (December 2, **2015**).	Pending

4.3.2- 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.** "*Synthesis and solution properties of a new sulfobetaine/sulfur di oxide copolymer and its use in aqueous two-phase polymer systems,"* Polymer. Vol. 44 (**2003**), pp. 1671-1679.	3.586
[J02]	Ali, S. A., **Mazumder, M. A. J.** and Al-Muallem, H. A. "*Synthesis and solution properties of a new pH responsive polymer containing amino propane sulphonic acid residues,"* Journal of Polymer Science. Part A. Polymer Chemistry. Vol. 41 (**2003**), pp. 172-184.	3.113
[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*	2.881

therapy," Journal of Biomedical Material Research, Part B. Applied Biomaterials. Vol. 90 B(1) (**2009),** pp. 350-361.

[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* 0.812

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.

[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 of 3-(diallylammnio)propane-1-sulfonate and urethanized poly(ethanol) or poly(oxyethylene), "* Journal of Chemical and Engineering Data. Vol. 58 (**2013**) 2574-2585. 1.835

[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 CO_2-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 $(CH_2CH_2NH)_nH$ as inhibitors of mild steel corrosion in CO_2-0.5 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 SO_2 and their application as antiscalants."* Iranian Polymer Journal. Vol. 25(9) (**2016**), 747-756.	1.684
[J29]	Chowdhury, S., **Mazumder, M. A. J.,** Al-Attas, O. and Husain, T. "*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.	3.976
[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

4.3.3- 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. "*Self-cross linkable polymers for cell immuno-Isolation,*" presented at 235th 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 "*Ca Alginate Composite Microcapsules for Cell Encapsulation,*" presented at 236th 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.** "*Quantitative determination of mechanical stability of microcapsule,*" presented at 9th 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].**

4.3.4- TECHNICAL REPORTS

SN	**Work after joining at KFUPM as an Assistant Professor**

[R01] **Mazumder, M. A. J.** "*Imidazoline and Isoxazolidine in the inhibition of mild steel corrosion in oil and gas industries*", DSR, KFUPM, Project # IN121036, Final Report, **2014.**

[R02] Ali, S. A., Al-Daous, M. and **Mazumder, M. A. J.** "*Proposed polymers as kinetic hydrate inhibitors*", Funded by Saudi Aramco, Project # CRP2256, Final Report, **2014.**

[R03] Chowdhury, S. H., Al- Zahrani, M. Al- Hooshani, K. and **Mazumder, M. A. J.** "*Model-based exposure and risk analysis for disinfection by products in swimming pool*", NSTIP-KACST, Project # 12-WAT2402-04, Final Report, **2015.**

4.3.5- BOOKS AND BOOK CHAPTERS

4.3.5.1- Books ***(Edited)***

SN	**Work after joining at KFUPM as an Assistant Professor**

[B01] **Mazumder, M. A. J.** and Al-Ahmed, A. *Advance Medical Materials and Applications*, Trans Tech Publications, Switzerland, ISBN-13: 978-3-03785-859-2, **2013.** Pages: 240.

[B02] **Mazumder, M. A. J.** and Al-Ahmed, A. *Materials for Biomedical Applications*, Trans Tech Publications, Switzerland, ISBN-13: 978-3-03835-182-5, **2014.** Pages: 143.

4.3.5.2- Book Chapter

SN	**The following have been extracted from Ph.D. and/or MS**

[BC1] **Mazumder, M. A. J*.,** Burke, N. A. D., Shen, F., Chu, T. Potter, M. A. and Stöver, H. D. H. "*Synthetic reactive polyelectrolytes for cell encapsulation*", American Chemical Society symposium series. Vol. 1053 (2010), pp. 131-159.

4.4- CITATIONS: NUMBER OF PUBLICATIONS CITED AND TOTAL No OF CITATIONS (EXCLUDING SELF CITATIONS)

- Number of publications cited: = 30
- Total No. of citations (exclude self-citations of all authors): = 192
- h-Index: = 12
- Please find complete details of citations from J1-J30 in appendix B

5. PROFESSIONAL ACTIVITIES

5.1- TECHNICAL CONFERENCE ATTENDANCE AND PRESENTATIONS

5.1.1- TECHNICAL CONFERENCES AND SYMPOSIA ATTENDANCE WITH PRESENTATION

SN **The following have been extracted from Ph.D. and/or MS**

[C01] Stöver, H. D. H., **Mazumder, M. A. J.,** Xia, Y., Robinson, E. and Burke. N. "*Dispersion polymer microspheres with high glass transition temperatures*," presented at 87th Canadian Chemistry Conference and Exhibition, London, Ontario, Canada, May 29-June 01, **2004**.

[C02] Shen, F., **Mazumder, M. A. J.,** Burke, N., Stöver, H. D. H. and Potter. M. A. "*Mechanically enhanced microencapsulated cellular gene therapy,"* presented at 10th American Society for Gene Therapy Annual Meeting, Seattle, Washington, USA, May 30- June 03, **2007.**

[C03] **Mazumder, M. A. J.,** Shen, F., Burke, N. A. D., Potter, M. A. and Stöver, H. D. H. "*Self-cross-linkable polyelectrolytes for cell encapsulation,"* presented at 33rd Canadian High Polymer Forum, Gananoque, ON, Canada, August 26-29, **2007.**

[C04] Li, J., **Mazumder, M. A. J.,** Stöver, H. D. H. and Hitchcock, A. P. "*Polyurea microcapsule surface modification using functional polyelectrolytes,"* presented at 91st Canadian Chemistry Conference and Exhibition, Edmonton, Alberta, Canada, May 24-28, **2008.**

[C05] Stöver, H. D. H., **Mazumder, M. A. J.,** Burke, N. A. D., Mills. C., Shen, F. and Potter, M. A. "*Polyelectrolytes for cell encapsulation,"* presented at 91st Canadian Chemistry Conference and Exhibition, Edmonton, Alberta, Canada, May 24-28, **2008.**

[C06] **Mazumder, M. A. J.,** Burke, N. and Stöver, H. D. H. "*Self-cross linking polyelectrolytes for cell immuno-Isolation*," presented at 7th International Symposium on Polyelectrolytes, Polyelectrolytes 2008, Coimbra, Portugal, June 16-19, **2008.**

[C07] Shen, F., **Mazumder, M. A. J.,** Cornelius, R. M., Brash, J. L., Stöver, H. D. H. and Potter, M. A. "*Adsorption of proteins on chemically modified alginate-based capsules for cellular gene therapy,"* presented at 58th American Society for Human Genetics Annual Meeting, Philadelphia, PA, USA. November 11-15, **2008.**

[C08] **Mazumder, M. A. J.,** Shen, F. Burke, N. A. D., Stöver, H. D. H. and Potter, M. A. "*Evaluation of mechanically enhanced alginate-based capsule for cellular gene therapy,"* presented 58th American Society for Human Genetics Annual Meeting, Philadelphia, PA, USA. November 11-15, **2008.**

[C09] **Mazumder, M. A. J.,** Burke, N. A. D., Shen, F., Potter, M. A., Stöver. H. D. H. "*Development of alternate polycations for alginate based microcapsules,"* presented at 92nd Canadian Chemistry Conference and Exhibition, Hamilton, Ontario, Canada, May 30-June 3, **2009.**

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

[C10] Fitzpatrick, S., **Mazumder, M. A. J.,** Muirhead, B., Lasowski, F. and Sheardown, H. "*PNIPAAm-Collagen Biomaterials as Cell Delivery Vehicles for Retinal Degenerative Diseases,"* presented at 34th American Society for Biomaterials Meeting and Exposition, Seattle, Washington, USA, April 21-24, **2010.**

[C11] **Mazumder, M. A. J.,** Fitzpatrick, S. and Sheardown, H. "*Thermo-responsive Polymeric Hydrogel Biomaterials as Bioactive Cell Delivery Scaffolds,"* presented at 28th Canadian Biomaterials Society Meeting, Kingston, ON, Canada, June 2-4, **2010.**

[C12] **Mazumder, M. A. J.,** Fitzpatrick, S., Muirhead, B. and Sheardown, H. "*Minimally Invasive Drug Delivery Strategies for posterior Segment Ocular Therapeutics,"* presented at 3rd Annual PolyMac Conference, Hamilton, ON, Canada, December 6-7, **2010.**

[C13] **Mazumder, M. A. J.,** Fitzpatrick, S. Muirhead, B. and Sheardown, H. "*Degradable Transparent Hydrogel as Smart Biopolymers,"* presented at 20/20 NSERC Ophthalmic Materials Network Spring Meeting, Niagara on the lake, ON, Canada, April 6-7, **2011.**

[C14] Fitzpatrick, S., **Mazumder, M. A. J.,** Muirhead, B. and Sheardown, H. "*Minimally Invasive Cell and Drug Delivery Biomaterials for Posterior Segment Ocular Therapy,"* presented at 35th American Society for Biomaterials Annual Meeting and Exposition, Orlando, Florida, USA, April 13-16, **2011.**

Work after joining at KFUPM as an Assistant Professor

[C15] **Mazumder, M. A. J.** and Sheardown. H. "*Thermo-responsive hydrogel as smart biopolymers,"* presented at 4th Asian Biomaterials Congress, Hongkong, June 26- 29, **2013.**

[C16] **Mazumder, M. A. J.** "*Synthesis, Characterization and Morphology of Self-cross-linking Polyelectrolyte Complexes,"* presented at Collaborative Conference on 3D and Material Research (CC3DMR), Busan, South Korea, June 15-19, **2015.**

[C17] Al-Muallem, H. A., Yaagoob, I., **Mazumder, M. A. J.** and Ali, S. A. "*Synthesis of a new class of alternate ionic cyclocopolymers and their potential use as antiscalants,"* presented at 251st American Chemical Society National Meeting, San Diego, California, USA. March 13-17, **2016.**

[C18] **Mazumder, M. A. J.** and Ali, S. A. "*Synthesis, Characterization and Morphology of pH dependent poly(electrolyte-zwitterions) Polyelectrolyte Complexes*," presented at 16th Asian Chemical Congress (16ACC), Dhaka, Bangladesh, March 16-19, **2016.**

[C19] **Mazumder, M. A. J.** and Ali, S. A. "*Ionic Polymers Containing Amino Acid Residues of Methionine as Green Corrosion Inhibitors,"* presented at 4th International Corrosion Engineering Conference, Beijing, China, August 8-11, **2016.**

5.1.2- TECHNICAL CONFERENCE AND SYMPOSIA ATTENDANCE WITHUT PRESENTATION

After joining at KFUPM as an Assistant Professor

- 25th Annual Saudi-Japan Symposium on **"**Catalysts in petroleum refining and petrochemicals", Research Institute, KFUPM, Saudi Arabia (December 7-8, **2015**).

- 1st KFUPM-NUS Collaboration Symposium on "Initiatives in Eco-Chemistry" organized by Chemistry Department, KFUPM (May 23-24, **2016)**.

5.2- TECHNICAL PRESENTATIONS AND INVITED LECTURES

Year	**Work after Ph.D. (Prior to joining at KFUPM)**	**Venue**
2010	An Injectable, *in situ* Gelling, Thermo-responsive Biodegradable Drug and Cell Delivery Scaffolds	McMaster Innovation Park, Hamilton, ON, Canada
	Work after joining at KFUPM as an Assistant Professor	
2012	Polymeric Microcapsules and Hydrogel for Biomedical Applications	Chemistry Department, KFUPM
2015	Polymers for Biomedical Applications	International Islamic University Malaysia, Jalan Istana, Kuantan, Malaysia

---

5.3- REVIEW OF TECHNICAL PAPERS, PROPOSALS AND REPORTS

5.3.1- Editorial Service

- Member, **Editorial Board**, Journal of Biomimetics, Biomaterials and Biomedical Engineering.
- Member, **Editorial Board**, International Journal of Corrosion Chemistry and its Application.
- Member, **Editorial Board**, Nano Hybrids and Composites.

5.3.2- Review of Technical papers

I have been working as a regular reviewer for various reputed international journals such as Journal of Thermal Analysis and Calorimetry, Journal of Microencapsulation, Biomacromolecules, Journal of Biomaterials Science Polymer Edition, Journal of Saudi Chemical Society, The Arabian Journal of Science and Engineering, Journal of the Taiwan Institute of Chemical Engineers, JBBBE and Nano hybrids.

5.3.3- Reviewed Proposals

- **Book proposal** entitled "Advances in composite materials: dentistry, orthopedic and drug delivery applications" for Elsevier, The Boulevard, Langford lane, Kidlington, Oxford OX5 1GB, UK, **2013.**

- **Research proposal** entitled "Synthesis of Novel Ionophores for Mercury (Hg) and Cadmium (Cd) Sensing" for International Summer Scholarly Program fund through Deanship of Scientific Research, KFUPM, Saudi Arabia, **2015.**

- **Research proposal** entitled "Design, synthesis, molecular modeling study, and biological evaluation of a series of pyrazole derivatives as potential anticancer agents acting through kinase and/or COX-2 inhibition" for research fund through office of the Vice Chancellor for Research and Graduate Studies, University of Sharjah, United Arab Emirates, **2016.**

6- COMMITTEES AND PUBLIC SERVICE

6.1- DEPARTMENTAL COMMITTEES

Title	Academic Year	Role	Type
▪ Graduate Studies	2011-2012 2012-2013	Member	Standing
▪ Information and Publicity	2013-2014	Member	Standing
▪ Freshmen Teaching	2013-2014 205-2016	Member	Standing
▪ Best Teaching and Advising Award	2013-2014	Member	Standing
▪ Information and Documentation	2014-2015	Member	Standing
▪ Program Assessment & Accreditation	2014-2015 2015-2016 2016- Till date	Member Member Chairman	Standing

▪ Quality Assurance	2016- Till date	Member	Standing
▪ Chemistry Minors and Elective Courses for Chemistry and Non-Chemistry students	2012-2013	Member	Ad hoc
▪ Industrial Chemistry Program Revision Committee	2015-2016	Member	Ad hoc

6.2- COLLEGE COMMITTEES

Title	Academic Year	Role	Type
▪ Committee on Assessment and Accreditation of College Programs	2015-2016 2016- Till date	Member	Ad hoc

6.3- UNIVERSITY COMMITTEES

Title	Academic Year	Role	Type
▪ Dammam Community College NCAAA Accreditation Committee	2015-2016	Member	Ad hoc

6.4- PUBLIC SEMINARS, LECTURES AND WORKSHOPS

I am regularly participating/attending public seminars, lectures and workshops organized by Chemistry Department, College of Sciences and the university. Some of them are listed below:

- Workshop by Dr. Amin Ghaleb, KFUPM on "Life Skills Team" organized by Deanship of Academic Development Testing and Learning Center, KFUPM (August 24, 2016)
- A workshop presented by Dr. Malkawi, KFUPM on "Infusing Skills in PYP Courses" organized by Deanship of Academic Development Testing and Learning Center, KFUPM (August 23, 2016)
- Workshop by Professor Lee Hian Kee, Chemistry Department, National University of Singapore on "old water and new water: the Singapore perspective" organized by Chemistry Department, KFUPM (May 24, 2016)
- Workshop by Professor Chuah Gaik Khuan, Chemistry Department, National University of Singapore on "Safety Practices for chemistry Laboratories" organized by Chemistry Department, KFUPM (May 23, 2016)
- Workshop by Dr. Saleh Duffuaa, System Engineering Department and Dr. Saad Ali Aiban, Civil Engineering Department, KFUPM on "Student Motivation" organized by

Deanship of Academic Development Teaching and Learning Center, KFUPM (April 18, 2016)

- Workshop by Dr. Khalid Alhooshani, Chemistry Department, KFUPM on "Inquiry-Based Student-Centered Instruction" organized by Deanship of Academic Development Teaching and Learning Center, KFUPM (April 13, 2016)
- Seminar by Prof. Abdelhamid Sayari, Department of Chemistry and Biomolecular Sciences, Department of Chemical and Biological Engineering, University of Ottawa, Canada on "CO_2 Capture: Material design, Performance and Stability" at Chemistry Department, KFUPM (April 13, 2016)
- Seminar by Dr. Wissam Nabil Lali, Centre for Hyperpolarization in Magnetic Resonance, The University of York, UK on "Transition Metal Complexes in Applied Catalysis" at Chemistry Department, KFUPM (April 4, 2016)
- Workshop by Prof. Philippe Marcus Institut de Recherché de Chimie Paris, Physical Chemistry of Surfaces CNRS on "Advances in Corrosion Mechanisms Studies and Atomistic Modelling of Corrosion" at Chemistry Department, KFUPM (March 23, 2016)
- Seminar by Prof. Philippe Marcus, Institut de Recherché de Chimie Paris/ Physical Chemistry of Surfaces CNRS – Chimie Paris Tech on "Recent Advances in Corrosion of Metals and Passivity" at Chemistry Department, KFUPM (March 23, 2016)
- Seminar by Dr. Thomas F. Garrison, Chemistry Department, KFUPM on "Practical Waterborne Agricultural Oil-Based Coatings in Chemistry" at Chemistry Department, KFUPM (March 9, 2016)
- Seminar by Mr. Sami Al-Buhair, Manager, Environment, Health and Safety Saudi Petrochemical Company (SADAF) SABIC on "Towards Safer and Healthier Work Environment in Teaching and Research Labs" Organized by Chemistry Department, KFUPM (March 2, 2016)
- Seminar by Dr. Dennis Gilmore Executive Director, RPD Innovations, Dhahran Techno Valley Innovation Centre on "Transforming Chemical Innovations into Commercial Impact" organized jointly by industry liaison office and the Chemistry department, KFUPM (February 17, 2016)
- Seminar by Dr. Saidur Rahman, Chair Professor, Centre of Research Excellence in Renewable Energy (CoRE-RE) Research, KFUPM on "Nano fluids for solar thermal energy applications" at RI, KFUPM (February 8, 2016)
- Workshop by ARAMCO Chair Prof. Omar Yaghi on Crafting Productive Research Programs titled "Thriving in the Mad World of Lab Research" organized by Deanship of Scientific Research, KFUPM (November 15, 2015)
- Seminar by Dr. Ahmed Abdelrahman visiting scholar in the Department of Chemical Engineering and Applied Chemistry, University of Toronto on "Solar Cells: Alternatives for the Incumbent Components" at Chemistry Department, KFUPM (November 11, 2015)
- Seminar by Dr. Qasim Saleem, King Abdullah University of Science and Technology (KAUST), Jeddah, KSA on "Timing the Lipid Sprint: Determining Phospholipid Lateral Diffusion Coefficients via Solid State NMR" at Chemistry Department, KFUPM (October 28, 2015)

- Seminar by Dr. Maher Al-Odan on "Chemical Science and sustainable energy, Research and Development and Innovation, KA CARE, Saudi Arabia" organized by SAICS-ACS, Saudi chapter at Al-Hasa Intercontinental Hotel, Saudi Arabia (October 27, 2015)
- PhD defense seminar by Mr. Mazen K. Nazal on "the potential applications of impregnated carbonaceous adsorbent in the removal of selected organosulfur compounds from synthetic diesel fuel" at Chemistry Department, KFUPM (October 21, 2015)
- Seminar by Dr. Abdul Rehman on "Reliable Chemical Sensors for Real-World Applications; Integrating the Orthogonal Detection Platforms" organized by Chemistry Department, KFUPM (October 21, 2015)
- Seminar by Dr. Muhammad Sharif, Leibniz Institute for Catalysis, Germany on "Novel Catalytic Transformations of Alcohols to Amides and Heterocyclic compounds" organized by Chemistry Department, KFUPM (September 16, 2015)
- Seminar by Dr. Almaz S. Jalilov, Rice University, USA on "Synthesis and Properties of Organic Radical Ions and Ultrahigh Surface Area Porous Activated Asphalt for CO_2 uptake" organized by Chemistry Department, KFUPM (September 9, 2015)
- Seminar by Dr Saidur Rahman, Chair Professor, Centre of Research Excellence in Renewable Energy (CoRE-RE) Research, KFUPM on "A guide on how to write a high impact journal paper", organized by CoRE-RE & Physics Department, KFUPM (September 7, 2015)
- Seminar by Dr. Sameer Patwardhan, North Western University USA on "Charge and Energy Transport Properties of Perovskites and Metal-Organic Frameworks for Solar Energy Applications" organized by Chemistry Department, KFUPM (September 2, 2015)
- Workshop by Dr. Wajih Abu Al-Saud on "online courses: Challenges and opportunities-KFUPM Experience" organized by DAD, KFUPM (August 10, 2015)
- Seminar by Dr. Katsuo Asakura on "Latest Applications of Liquid- and Solid-State NMR in Chemistry" at Chemistry Department, KFUPM (May 4, 2015)
- Seminar by Prof. Matthias Beller on "Efficient Catalysis for Organic Synthesis and Industrial Production of Fine and Bulk Chemicals" at Chemistry Department, KFUPM (April 29, 2015)
- Seminar by Dr. Peter Gorsuch, Nature Editor, on "How to Get Published in Top-tier Journals" organized by Deanship of Scientific Research, KFUPM (April 21, 2015)
- Seminar by Dr. Abdulrhman Alfawzan, Staff Scientist in Technology and Innovation Center at SABIC on "Polymer nanocomposite" at RI, KFUPM (March 16, 2015)
- Seminar by Dr. Omar M. Yaghi, University of California-Berkeley, USA on "Reticular Chemistry and the Design of New Materials" at Chemistry Department, KFUPM (March 4, 2015)
- Workshop by Prof. Toshihiro Akaike, Principal Investigator/Director FAIS Biomaterials Center for Regenerative Medical Engineering, Tokyo Institute of Technology, Japan on "Biomaterials – Concept, Design and Applications" at Chemistry Department, KFUPM (February 18, 2015)

- Seminar by Prof. Toshihiro Akaike, Principal Investigator/Director FAIS Biomaterials Center for Regenerative Medical Engineering, Tokyo Institute of Technology, Japan on "Cell-recognizable biomaterials – advancing the stem cell technology, regenerative medicine, and drug/gene delivery towards application" at Chemistry Department, KFUPM (February 18, 2015)
- Seminar by Dr. Kakon Nag, Deputy Director FAIS Biomaterials Centre for Regenerative Medical Engineering, Tsukuba, Ibaraki, Japan on "Industrial application of cell recognizable biomaterials" at Chemistry Department, KFUPM (February 16, 2015)
- Seminar by Prof. Tanju Karanfil, Clemson University, USA on "N-Nitrosodimethylamine Formation and Control at Drinking Water Treatment Plants" at Chemistry Department, KFUPM (December 29, 2014)
- Seminar jointly by Halliburton and Chemistry Department, KFUPM on "Collaborative research perspective" sponsored by Chemistry Department, KFUPM (December 3, 2014)
- Seminar by Mr. Yasir Abbas on "Safety in academic chemistry laboratories" organized by Chemistry Department, KFUPM (November 5, 2014)
- Seminar by Mr. Wissam Mouallem on "General spectroscopy, from basic measurements to Advanced Analysis Techniques" organized by Chemistry Department, KFUPM (October 29, 2013)
- Seminar by Mr. Paul Peters on "Scifinder- Chemical Abstract Service" organized by Chemistry Department/Deanship of library affairs, KFUPM (October 27, 2014)
- SAICS-ACS seminar by H. R. H. Prince Saud bin Khalid Al-Faisal, Deputy Governor for Investment Affairs on "Saudi Arabian General Investment" in Al-Ahsa Intercontinental Hotel, Al-Ahsa, Saudi Arabia (September 17, 2014)
- Workshop by Mr. Sanaullah on "getting started with Blackboard 9.1" organized by DAD, KFUPM (September 13, 2013)
- Workshop by Deanship of Academic Development Teaching and Learning Center on "NCAAA Activity workshop" organized by DAD, KFUPM (August 26, 2014)

7- STATEMENT OF TEACHING PHILOSOPHY

In last sixteen years of my teaching profession as a Teaching Assistant, Lecturer and Assistant Professor, I have had the privilege of teaching number of undergraduate and graduate Chemistry courses that includes- Introductory Chemistry, General Chemistry, Organic Chemistry, and Polymer Chemistry. I have developed my teaching philosophy from my own professional training and teaching experience, and the facts that have influenced me the most. My earlier teaching experiences have led me to appreciate how good teaching, at its core, about caring for students as people, and how such empathy helps teachers understand how students learn. In addition, I consistently striving to improve my teaching by discussions with peers, attending relevant teaching seminars, and learning and exploring new methods. As a faculty member, I am

always trying to achieve a sound balance between many facets of academic through undergraduate and graduate teaching, the development of a strong and innovative research program, performance of administrative duties for the benefit of the students and the institution, and active participation in the community. As a whole, good teaching means three things to me: being prepared, going the extra mile when necessary, and motivating students to care.

I love my profession as a faculty of Chemistry, a magnificent occupation which enable me to perform my own research work along with impart and coach young apprentices. I consider remarkable student's development and new origination of science are just inspiring forces which stimulate me to target and set high standards for my research and teaching and for better performance. Science is a dynamic, exciting and challenging area of work, study and research. Being a scientist, I experienced that curiosity is the powerful driving force for the students which encourage them to make effort to find the way to resolve the problems. Students should first enquire why, how and attempt to understand the concept instead of memorization and recitation of the material.

In my opinion, a good teacher is one who: (a) cares students, respects individual's ideas and opinions. So, Students feel safe to demonstrate their feelings and learn to respect and listen to others; (b) possess extremely professional organizational skills and preparedness for each day. Also able to categorizes, classify and take advantage of "teachable moments" in the classroom; (c) is friendly, approachable, and accessible, to whom students know they can go with any problems or concerns, and creates a warm learning atmosphere for all students. (d) Constantly renews himself as a professional to provide the highest quality of education possible. e) Inspires students to give their best efforts with his passion for education and for the course material. Moreover, a great teacher should possess strong, sense of humor, and being friendly who can laugh with the students.

In a nut shell, my teaching standpoint is to combine my understanding, knowledge, and professional skills into approaches which will benefit the students to achieve and uphold their knowledge and skills, and will be able to apply their new innovative efforts to their preferred field.

8- STATEMENT OF RESEARCH PHILOSOPHY

Researchers are life-long learners. My curiosity about the research domains in Chemistry and Chemical Biology field led my way to the doctoral program at McMaster University, Canada, where my thesis supervisor, mentors and fellow students extended my understating of the field. The interdisciplinary research in Chemistry, materials science and applied sciences is a fascinating and exhilarating, which led my way to design, synthesis, modification and characterization of various organic compounds, ionic and thermo-responsive polymers using various spectroscopic and chromatographic techniques, and helped me to establish my goals as a researcher, and opened a door for me to the scientific research world. Since I graduated from my graduate

school, joined in post-doctoral research, later joined at King Fahd University of Petroleum and Minerals in 2012, I continuously keep developing my philosophy of research with more thoughts gained through involvement in various scholarly activities as well as dialogues with my colleagues and collaborators. My specific research interests are in materials design, synthesis and characterization for application in biomedical, surface modifications/coating and corrosion.

In 16 years of academic research, I have had the opportunity to work with several international collaborative research groups and exposed myself to a broad range of research areas, including Chemistry, engineering and material sciences where I developed and engineered synthetic and natural organic and polymeric materials for biomedical and corrosion applications. Moreover, I have over four years of working experience in renowned pharmaceutical company in Bangladesh as a quality control Chemist, and R & D based Chemical Industry in Canada as a research scientist where I worked on the development, optimization and characterization of various chemical and polymeric products, and exposed with a variety of analytical techniques/ instruments.

I have secured 3 US patents and pending 2 more US patents, 2 books edited, 1 book chapter, published 30 peer reviewed journal articles in synthesis, characterization and applications based international journal of Chemistry, and had the opportunity to present my research more than 20 international conferences. I have been working as an editorial board members of Journal of Biomimetics, Biomaterials and Biomedical Engineering, International Journal of Corrosion Chemistry and its Application, and Nano Hybrids and Composites. I have been awarded with numerous national and international scholarships and awards that include prestigious Indian Government ICCR Scholarship, Aligarh Muslim University undergraduate & graduate gold medals, and certificate of excellence from Indian Government- Ministry of Human Resource Development, KFUPM research assistantship, McMaster University graduate scholarship, and Canadian MITACS postdoctoral fellowship for pursuing postdoctoral research.

Currently, I am actively involved in a number of ongoing university and client funded research projects in a capacity of principal and co- investigator where I am responsible for synthesis and characterization of various organic materials, modified monomers and polymers for their potential use in the inhibition of mild steel corrosion in oil and gas industries, and designing and preparation of multilayered polyelectrolyte coated membrane for the removal of heavy metals and organic contaminants from aqueous samples.

My long term scientific goal is not merely to make science fun and entertaining for people, it is to engage them with a multidisciplinary scientific mission at a deeper level to create a space through which they can interact with scientific ideas, developing connections between science, engineering and biology, and thoughts of their own to contributions to the society. I feel this goal and my engaging personality make me an engaging person to work with and help inspire my co-workers in any professional setting.

Appendix A

Teaching Evaluation

TEACHING EVALUATION

Academic Year	Term	Course (Section No.)	Type	Course Title	Enrollment	Student Evaluation (**out of 10**)
2011-2012	112*	CHEM 202 (2)	Lecture	Organic Chemistry II	20	8.45
2012-2013	121	CHEM 101 (22, 23, 24)	Lecture	General Chemistry I	70	8.41
		CHEM 201 (61)	Laboratory	Organic Chemistry I	13	8.74
	122	CHEM 201 (2)	Lecture	Organic Chemistry I	30	8.82
		CHEM 201 (51, 62)	Laboratory	Organic Chemistry I	24	9.06
2013-2014	131	CHEM 101 (19, 20, 21)	Lecture	General Chemistry I	55	8.71
	132	CHEM 101 (16, 17, 18)	Lecture	General Chemistry I	21	8.93
	133	CHEM 101 (4, 5)	Lecture	General Chemistry I	23	8.54
2014-2015	141	CHEM 201 (52, 57)	Laboratory	Organic Chemistry I	18	8.71
	142	CHEM 201 (52, 62)	Laboratory	Organic Chemistry I	20	8.45
		CHEM 537 (1)	Lecture	Polymer Synthesis	7	9.30
2015-2016	151	CHEM 101 (19, 20, 21)	Lecture	General Chemistry I	49	8.05
	152	CHEM 101 (16, 17, 18)	Lecture	General Chemistry I	82	9.09
2016-2017	161	CHEM 201 (4)	Lecture	Organic Chemistry I	11	-
		CHEM 201 (52, 54)	Laboratory	Organic Chemistry I	24	-

*Taught the course since February 27, 2012 as a replacement of Dr. Abdalla Jafar Salman Hamdan

TEACHING EVALUATION **(STUDENT COMMENTS**)

Few comments from students' evaluation report are listed below:

Term	Course Title (Section No.)	Comments
152	CHEM 101-Lecture (18)	▪ Mr.Jafar is excellent. His course plan went as he planned. His classes are enjoyable and he knows how to manage his way around with the students. I loved his class and I would love it if he could teach me again
152	CHEM 101-Lecture (17)	▪ nothing to say except he is an excellent teacher
152	CHEM 101-Lecture (16)	▪ I would love to take chem 102 with him again ▪ Dr. jafar is a really nice man! I loved my course with him
142	CHEM 537-Lecture (1)	▪ he is a very good instructor and help us so much ▪ He is hardworking and motivated ▪ Due to his method of teaching i am strongly motivated to the polymer side. And it could be my future research area in PhD.
142	CHEM 201-Laboratory (62)	▪ I was honored to be his student.
132	CHEM 201-Lecture (18)	▪ Friendly and cares about student understanding.
122	CHEM 201-Lecture (2)	▪ one of the best doctors ever ▪ The best chemistry doctor in kfupm ▪ He does his best to make us the best... ▪ Thank you very much mr. Jafar for all your hard work to help us understand the material ▪ He is versed and skilled in his field and most importantly is that he is very kind, friendly, respected and interested in students' abilities and motivates them all the time. He is one of the best instructors i have ever met.
122	CHEM 201-Laboratory (62)	▪ best chem lab Dr. ever

King Fahd University of Petroleum and Minerals

Deanship of Academic Development

Instructor Evaluation Summary Report

Refreshed Time: 02/10/2016 05:53:2 AM

Instructor's Name:	Mohammad Abu Jafar Mazumder	Department:	Chemistry

Term Code	Course	Course Title	Section No	Activity Type	Total Students	Total Evaluations	Total Valid Evaluations	Overall Average	Instuctor Average	Average Department UG	Average Department Graduate	Average University UG	Average University Graduate
201520	CHEM-101	General Chemistry I	16	LEC	32	16	13	9.41	9.09	8.62	9.34	8.67	9.09
	CHEM-101	General Chemistry I	17	LEC	23	9	8	9.37					
	CHEM-101	General Chemistry I	18	LEC	27	12	11	8.49					
201510	CHEM-101	General Chemistry I	19	LEC	29	17	11	7.76	8.05	8.48	9.33	8.60	9.00
	CHEM-101	General Chemistry I	20	LEC	17	13	9	8.22					
	CHEM-101	General Chemistry I	21	LEC	3	1	1	8.16					
201420	CHEM-201	Organic Chemistry I	52	LAB	12	11	8	8.17	8.73	8.50	9.24	8.59	9.03
	CHEM-201	Organic Chemistry I	62	LAB	8	8	8	8.72					
	CHEM-537	Polymer Synthesis	01	LEC	7	7	6	9.30					
201410	CHEM-201	Organic Chemistry I	52	LAB	8	7	7	8.41	8.71	8.52	9.23	8.53	8.95
	CHEM-201	Organic Chemistry I	57	LAB	10	10	9	9.01					
201330	CHEM-101	General Chemistry I	04	LEC	13	8	7	8.53	8.54	8.57		8.59	
	CHEM-101	General Chemistry I	05	LEC	10	10	8	8.55					
201320	CHEM-101	General Chemistry I	16	LEC	11	7	4	8.57	8.93	8.46	9.21	8.57	9.05
	CHEM-101	General Chemistry I	17	LEC	7	6	5	8.60					
	CHEM-101	General Chemistry I	18	LEC	3	3	2	9.61					
201310	CHEM-101	General Chemistry I	19	LEC	23	16	13	8.74	8.71	8.44	9.12	8.55	8.90
	CHEM-101	General Chemistry I	20	LEC	21	10	9	8.50					

Printed Time: Oct 2, 2016 8:40:29 AM Page 1

King Fahd University of Petroleum and Minerals
Deanship of Academic Development
Instructor Evaluation Summary Report

Term Code	Course	Course Title	Section No	Activity Type	Total Students	Total Evaluations	Total Valid Evaluations	Overall Average	Instuctor Average	Department Average		University Average	
										UG	Graduate	UG	Graduate
201310	CHEM-101	General Chemistry I	21	LEC	11	7	6	8.89	8.71	8.44	9.12	8.55	8.90
201220	CHEM-201	Organic Chemistry I	02	LEC	30	24	21	8.82	8.98	8.35	9.01	8.55	8.84
	CHEM-201	Organic Chemistry I	51	LAB	12	10	9	9.17					
	CHEM-201	Organic Chemistry I	62	LAB	12	8	6	8.94					
201210	CHEM-101	General Chemistry I	22	LEC	29	15	13	8.41	8.49	8.41	9.30	8.54	8.95
	CHEM-101	General Chemistry I	23	LEC	30	18	15	8.15					
	CHEM-101	General Chemistry I	24	LEC	11	8	6	8.66					
	CHEM-201	Organic Chemistry I	61	LAB	13	11	10	8.74					

Refreshed Time: 17/09/2012 07:00:0 AM

Instructor's Name: **Abdalla Jafar Salman Hamdan** Department: **Chemistry**

Term Code	Course	Course Title	Section No	Activity Type	Total Students	Total Evaluations	Total Valid Evaluations	Overall Average	Instuctor Average	Department Average		University Average	
										UG	Graduate	UG	Graduate
201120	CHEM-202	Organic Chemistry II	01	LEC	20	14	12	8.45	8.45	8.43	8.84	8.54	9.02

Appendix B

Citations Details

Scopus
Citation Statistics

Export date: October 18, 2016

Date range: 2012 to 2016

☑ Exclude self citations of all authors

☐ Exclude Citations from books

Edit the data for this graph and the citation table below.

Update

Documents		Citations								
Sort on: Date (newest) Citation count (descending) ...		<2012	2012	2013	2014	2015	2016	Subtotal	>2016	Total
	Total	34	25	21	46	33	32	157	0	192
1 Predicting bromide incorporation in a chlorinated indoor swi...	2016							0		0
2 Heavy metals in drinking water: Occurrences, implications, a...	2016							0		0
3 Synthesis of a terpolymer and a tetrapolymer using monomers ...	2016							0		0
4 Synthesis and evaluation of new isoxazolidine derivatives of...	2016							0		0
5 Imidazolines containing single-, twin- and triple-tailed hyd...	2016							0		0
6 A novel cyclopolymer containing residues of essential amino ...	2015							0		0
7 The effects of N-pendants and electron-rich amidine motifs i...	2015					4	2	6		6
8 Advanced materials for gene delivery	2014						1	1		1
9 Preface	2014							0		0
10 Polyelectrolyte complexation between cationic and anionic po...	2014							0		0
11 Design and synthesis of a novel class of inhibitors for mild...	2014					4	7	11		11
12 Coexistence curves of aqueous two-phase systems of some pH-r...	2013				1		1	2		2
13 Multi-component catalysts with spinel structure for the sele...	2013						1	1		1
14 Gold nanotubes from organic scaffolds for biomedical applica...	2013							0		0
15 Biomedical perspectives of polyaniline based biosensors	2013				1			1		1
16 Bio-encapsulation for the immune-protection of therapeutic c...	2013							0		0
17 Synthesis and thermal properties of triblock copolymers of m...	2012							0		0
18 Cell-adhesive thermogelling PNIPAAm/hyaluronic acid cell del...	2012			2	7	8	3	20	1	21
19 Development of injectable, resorbable drug-releasing copolym...	2012			2	6	1	3	12		12
20 Temperature-sensitive polymers for drug delivery	2012				3	5	4	12		12
21 Polyurea microcapsules: Surface modification and capsule siz...	2011		5	3	2	1	1	12		12
22 High T<inf>g</inf> microspheres by dispersion copolymerizati...	2011		3			2	1	6		6
23 Synthetic reactive polyelectrolytes for cell encapsulation	2010				1			1		1
24 PNIPAAm-Grafted-Collagen as an injectable, in situ gelling, ...	2010	6	8	2	8	1	3	22		28
25 Core-cross-linked alginate microcapsules for cell encapsulat...	2009	8	5	5	4	4	3	21		29
26 Mechanically enhanced microcapsules for cellular gene therap...	2009	1		3	6			9		10
27 Self-crosslinkable polymers for cell immuno-isolation	2008							0		0
28 Self-cross-linking polyelectrolyte complexes for therapeutic...	2008	6	2	4	2	2	1	11		17
29 Polyelectrolyte complexation between poly(methacrylic acid, ...	2007	4	1		1	1		3		7
30 Synthesis and solution properties of a new poly(electrolyte-...	2004	5	1		2			3		8
31 Synthesis and solution properties of a new poly(electrolyte-...	2003	3			1		1	2		5
32 Synthesis and solution properties of a new pH-responsive pol...	2002	1			1			1		2

All citation References from SCOPUS:

J01: *Synthesis and solution properties of a new sulfobetaine/sulfur di oxide copolymer and its use in aqueous two-phase polymer systems*

1. Zhi, Y., Wu, J., Ma, A., Tian, N., Shan, S., Jia, Q., Su, H. Efficient alternating copolymerization of sulfur dioxide with cyclohexene oxide and a mechanistic understanding,(2016) RSC Advances, 6 (39), pp. 32881-32886.
2. Laschewsky, A. Structures and synthesis of zwitterionic polymers (2014) Polymers, 6 (5), pp. 1544-1601.
3. Singh, P.K.' Singh, V.K., Singh, M., Zwitterionic polyelectrolytes: A review (Review) , 2007, E-polymers, 9 March 2007,1-34
4. Kudaibergenov, S., Jaeger, W., Laschewsky, A. Polymeric betaines: Synthesis, characterization, and application (2006) Advances in Polymer Science, 201 (1), pp. 157-224.
5. Rullens, F., Devillers, M., Laschewsky, A. New regular, amphiphilic poly(ampholyte)s: Synthesis and characterization (2004) Macromolecular Chemistry and Physics, 205 (9), pp. 1155-1166

J02: *Synthesis and solution properties of a new pH responsive polymer containing amino propane sulphonic acid residues*

1. Laschewsky, A. Structures and synthesis of zwitterionic polymers,(2014) Polymers, 6 (5), pp. 1544-1601.
2. Berti, C., Celli, A., Marianucci, E., Vannini, M. Modification of poly(butylene terephthalate) by reaction with 1,4-butane sultone; synthesis and thermal characterization of new telechelic PBT ionomers, (2008) E-Polymers, art. No. 074.

J03: *Synthesis and Solution properties of a new poly (electrolyte-zwitterions*

1. Wang, B., Galliford, C.V., Low, P.S. Guiding principles in the design of ligand-targeted nanomedicines (2014) Nanomedicine, 9 (2), pp. 313-330.
2. Schunk, T., Hirsch, A. Dendritic architectures with positively charged cores and negatively charged shells (2012) European Journal of Organic Chemistry, (6), pp. 1130-1137.
3. Mary, P., Bendejacq, D.D., Labeau, M.-P., Dupuis, P. Reconciling low- and high-salt solution behavior of sulfobetaine polyzwitterions (2007) Journal of Physical Chemistry B, 111 (27), pp. 7767-7777.
4. Singh, P.K., Singh, V.K., Singh, M. Zwitterionic polyelectrolytes: A review (2007) E-Polymers, pp. 1-34.
5. Kudaibergenov, S., Jaeger, W., Laschewsky, A. Polymeric betaines: Synthesis, characterization, and application (2006) Advances in Polymer Science, 201 (1), pp. 157-224.
6. Liu, J., Xu, T., Gong, M., Yu, F., Fu, Y. Fundamental studies of novel inorganic-organic charged zwitterionic hybrids. 4. New hybrid zwitterionic membranes prepared from polyethylene glycol (PEG) and silane coupling agent (2006) Journal of Membrane Science, 283 (1-2), pp. 190-200.

7. Marshall, A.J., Young, D.S., Kabilan, S., Hussain, A., Blyth, J., Lowe, C.R. Holographic sensors for the determination of ionic strength (2004) Analytica Chimica Acta, 527 (1), pp. 13-20.

J04: *Polyelectrolyte complexation between poly(methacrylic acid, sodium salt) and poly(diallylammonium chloride) or poly[2-(methacryloyloxyethyl) trimethylammonium chloride]*

1. Kayitmazer, A.B., Koksal, A.F., Kilic Iyilik, E. Complex coacervation of hyaluronic acid and chitosan: Effects of pH, ionic strength, charge density, chain length and the charge ratio (2015) Soft Matter, 11 (44), pp. 8605-8612.
2. Bercea, M., Nita, L.-E., Eckelt, J., Wolf, B.A. Polyelectrolyte complexes: Phase diagram and intrinsic viscosities of the system water/poly(2-vinylpyridinium-Br)/poly(styrene sulfonate-Na) (2012) Macromolecular Chemistry and Physics, 213 (23), pp. 2504-2513.
3. Uematsu, T., Matsui, Y., Kakiuchi, S., Isogai, A. Cellulose wet wiper sheets prepared with cationic polymer and carboxymethyl cellulose using a papermaking technique (2011) Cellulose, 18 (4), pp. 1129-1138.
4. Beheshti, N., Zhu, K., Kjøniksen, A.-L., Nyström, B. Characterization of complexation and phase behavior of mixed systems of unmodified and hydrophobically modified oppositely charged polyelectrolytes. (2010) Colloid and Polymer Science, 288 (10-11), pp. 1121-1130.
5. Grigoriev, D.O., Köhler, K., Skorb, E., Shchukin, D.G., Möhwald, H. Polyelectrolyte complexes as a "smart" depot for self-healing anticorrosion coatings (2009) Soft Matter, 5 (7), pp. 1426-1432.
6. Seno, K.-I., Kanaoka, S., Aoshima, S. Synthesis and LCST-type phase separation behavior in organic solvents of poly (vinyl ethers) with pendant imidazolium or pyridinium salts (2008) Journal of Polymer Science, Part A: Polymer Chemistry, 46 (17), pp. 5724-5733.

J05: *Self-cross linking polyelectrolyte complexes for therapeutic cell encapsulation*

1. Mahou, R., Passemard, S., Carvello, M., Petrelli, A., Noverraz, F., Gerber-Lemaire, S., Wandrey, C. Contribution of polymeric materials to progress in xenotransplantation of microencapsulated cells: a review (2016) Xenotransplantation, 23 (3), pp. 179-201.
2. Mahou, R., Borcard, F., Crivelli, V., Montanari, E., Passemard, S., Noverraz, F., Gerber-Lemaire, S., Bühler, L., Wandrey, C. Tuning the Properties of Hydrogel Microspheres by Adding Chemical Cross-linking Functionality to Sodium Alginate (2015) Chemistry of Materials, 27 (12), pp. 4380-4389.
3. Liu, J., Willför, S., Xu, C. A review of bioactive plant polysaccharides: Biological activities, functionalization, and biomedical applications (2015) Bioactive Carbohydrates and Dietary Fibre, 5 (1), pp. 31-61.
4. Guo, H., Guo, Q., Chu, T., Zhang, X., Wu, Z., Yu, D. Glucose-sensitive polyelectrolyte nanocapsules based on layer-by-layer technique for protein drug delivery (2014) Journal of Materials Science: Materials in Medicine, 25 (1), pp. 121-129.
5. Granicka, L.H. Nanoencapsulation of cells within multilayer shells for biomedical applications (2014) Journal of Nanoscience and Nanotechnology, 14 (1), pp. 705-716.
6. Gu, X., Wang, J., Wang, Y., Wang, Y., Gao, H., Wu, G. Layer-by-layer assembled polyaspartamide nanocapsules for pH-responsive protein delivery (2013) Colloids and Surfaces B: Biointerfaces, 108, pp. 205-211.
7. Sharma, A., Kundu, S., Reddy M, A., Bajaj, A., Srivastava, A. Design and Engineering of Disulfide Crosslinked Nanocomplexes of Polyamide Polyelectrolytes: Stability under

Biorelevant Conditions and Potent Cellular Internalization of Entrapped Model Peptide (2013) Macromolecular Bioscience, 13 (7), pp. 927-937.
8. Guo, M., Cao, X., Meijer, E.W., Dankers, P.Y.W. Core-Shell Capsules Based on Supramolecular Hydrogels Show Shell-Related Erosion and Release Due to Confinement (2013) Macromolecular Bioscience, 13 (1), pp. 77-83.
9. Bocharova, V., Zavalov, O., MacVittie, K., Arugula, M.A., Guz, N.V., Dokukin, M.E., Halámek, J., Sokolov, I., Privman, V., Katz, E. A biochemical logic approach to biomarker-activated drug release (2012) Journal of Materials Chemistry, 22 (37), pp. 19709-19717.
10. Zhao, S., Zhao, Y., Meng, H., Li, Q., Yin, Y. Carrier materials of mesenchymal stem cells expansion (2012) Progress in Chemistry, 24 (1), pp. 173-181.
11. Dräger, G., Krause, A., Möller, L., Dumitriu, S. Carbohydrates (2011) Handbook of Biodegradable Polymers: Isolation, Synthesis, Characterization and Applications, pp. 155-193.
12. Schmidt, S., Fernandes, P.A.L., De Geest, B.G., Delcea, M., Skirtach, A.G., Möhwald, H., Fery, A. Release properties of pressurized microgel templated capsules (2011) Advanced Functional Materials, 21 (8), pp. 1411-1418.
13. Ondaral, S., Ankerfors, C., Ödberg, L., Wågberg, L. Surface-induced rearrangement of polyelectrolyte complexes: Influence of complex composition on adsorbed layer properties (2010) Langmuir, 26 (18), pp. 14606-14614.
14. Shu, S., Zhang, X., Wu, Z., Wang, Z., Li, C. Gradient cross-linked biodegradable polyelectrolyte nanocapsules for intracellular protein drug delivery (2010) Biomaterials, 31 (23), pp. 6039-6049.
15. Boyer, C., Bousquet, A., Rondolo, J., Whittaker, M.R., Stenzel, M.H., Davis, T.P. Glycopolymer decoration of gold nanoparticles using a LbL approach (2010) Macromolecules, 43 (8), pp. 3775-3784.
16. Baruch, L., Benny, O., Gilert, A., Ukobnik, M., Ben Itzhak, O., MacHluf, M. Alginate-PLL cell encapsulation system Co-entrapping PLGA-microspheres for the continuous release of anti-inflammatory drugs (2009) Biomedical Microdevices, 11 (5), pp. 1103-1113.

J06: *Mechanically enhanced microencapsulated cellular gene therapy.*

1. Fakhoury, M., Negrulj, R., Mooranian, A., Al-Salami, H. Inflammatory bowel disease: Clinical aspects and treatments (2014) Journal of Inflammation Research, 7 (1), pp. 113-120.
2. Rokstad, A.M.A., Lacík, I., de Vos, P., Strand, B.L. Advances in biocompatibility and physico-chemical characterization of microspheres for cell encapsulation (2014) Advanced Drug Delivery Reviews, 67-68, pp. 111-130.
3. Fakhoury, M., Coussa-Charley, M., Al-Salami, H., Kahouli, I., Prakash, S. Use of artificial cell microcapsule containing thalidomide for treating TNBS-induced Crohn's disease in mice (2014) Current Drug Delivery, 11 (1), pp. 146-153.
4. Bhujbal, S.V., Paredes-Juarez, G.A., Niclou, S.P., de Vos, P. Factors influencing the mechanical stability of alginate beads applicable for immunoisolation of mammalian cells (2014) Journal of the Mechanical Behavior of Biomedical Materials, 37, pp. 196-208.
5. Richardson, T., Kumta, P.N., Banerjee, I. Alginate encapsulation of human embryonic stem cells to enhance directed differentiation to pancreatic islet-like cells (2014) Tissue Engineering - Part A, 20 (23-24), pp. 3198-3211.
6. Gimi, B., Nemani, K.V. Advances in alginate gel microencapsulation of therapeutic cells (2014) Critical Reviews in Biomedical Engineering, 41 (6), pp. 469-481.

7. Lacík, I. Current status on immunoprotection of transplanted islets: Focus on islet microencapsulation (2013) Micro and Nanosystems, 5 (3), pp. 168-176.
8. Ren, M., Liu, R., Lv, B., Gao, Q., Feng, J., Wu, Y., Zhao, Z., Zhou, Y. Safety and efficacy of ethylenediaminetetraacetic acid for removing microcapsules (2013) Journal of Surgical Research, 183 (1), pp. 442-449.
9. Dong, Y., Cui, L., Peng, C., Han, B., Huang, F. The botryoidal microcapsule: A novel tissue scaffold (2013) Hepato-Gastroenterology, 60 (123), pp. 415-419.
10. Catena, R., Santos, E., Orive, G., Hernández, R.M., Pedraz, J.L., Calvo, A. Improvement of the monitoring and biosafety of encapsulated cells using the SFGNESTGL triple reporter system (2010) Journal of Controlled Release, 146 (1), pp. 93-98.

J07: *Core cross linked alginate microcapsules for cell encapsulation.*

1. Badruddoza, A.Z.M., Godfrin, P.D., Myerson, A.S., Trout, B.L., Doyle, P.S. Core–Shell Composite Hydrogels for Controlled Nanocrystal Formation and Release of Hydrophobic Active Pharmaceutical Ingredients (2016) Advanced Healthcare Materials, 5 (15), pp. 1960-1968.
2. Mahou, R., Passemard, S., Carvello, M., Petrelli, A., Noverraz, F., Gerber-Lemaire, S., Wandrey, C. Contribution of polymeric materials to progress in xenotransplantation of microencapsulated cells: a review (2016) Xenotransplantation, 23 (3), pp. 179-201.
3. Chatzistavrou, X., Rao, R.R., Caldwell, D.J., Peterson, A.W., McAlpin, B., Wang, Y.-Y., Zheng, L., Christopher Fenno, J., Stegemann, J.P., Papagerakis, P. Collagen/fibrin microbeads as a delivery system for Ag-doped bioactive glass and DPSCs for potential applications in dentistry (2016) Journal of Non-Crystalline Solids, 432, pp. 143-149.
4. Meier, R.P.H., Navarro-Alvarez, N., Morel, P., Schuurman, H.-J., Strom, S., Bühler, L.H. Current status of hepatocyte xenotransplantation (2015) International Journal of Surgery, 23, pp. 273-279.
5. Sonia, T.A., Sharma, C.P. Oral Delivery of Insulin (2015) Oral Delivery of Insulin, pp. 1-345.
6. Jeong, E., Shin, S., Park, M., Hyun, J. Permeability control of cellulose hydrogel membrane using alginate (2015) Palpu Chongi Gisul/Journal of Korea Technical Association of the Pulp and Paper Industry, 47 (2), pp. 17-23.
7. Liu, J., Willför, S., Xu, C. A review of bioactive plant polysaccharides: Biological activities, functionalization, and biomedical applications (2015) Bioactive Carbohydrates and Dietary Fibre, 5 (1), pp. 31-61.
8. Rokstad, A.M.A., Lacík, I., de Vos, P., Strand, B.L. Advances in biocompatibility and physico-chemical characterization of microspheres for cell encapsulation (2014) Advanced Drug Delivery Reviews, 67-68, pp. 111-130.
9. Baldo, G., Giugliani, R., Matte, U. Gene delivery strategies for the treatment of mucopolysaccharidoses (2014) Expert Opinion on Drug Delivery, 11 (3), pp. 449-459.
10. Mahou, R., Meier, R.P.H., Bühler, L.H., Wandrey, C. Alginate-poly(ethylene glycol) hybrid microspheres for primary cell microencapsulation (2014) Materials, 7 (1), pp. 275-286.
11. Wen, Y., Oh, J.K. Dual-stimuli reduction and acidic pH-responsive bionanogels: Intracellular delivery nanocarriers with enhanced release (2014) RSC Advances, 4 (1), pp. 229-237.
12. Lacík, I. Current status on immunoprotection of transplanted islets: Focus on islet microencapsulation (2013) Micro and Nanosystems, 5 (3), pp. 168-176.

13. Breul, A.M., Hager, M.D., Schubert, U.S. Fluorescent monomers as building blocks for dye labeled polymers: Synthesis and application in energy conversion, biolabeling and sensors (2013) Chemical Society Reviews, 42 (12), pp. 5366-5407.
14. Pérez, R.A., Won, J.-E., Knowles, J.C., Kim, H.-W. Naturally and synthetic smart composite biomaterials for tissue regeneration (2013) Advanced Drug Delivery Reviews, 65 (4), pp. 471-496.
15. Cook, M.T., Saratoon, T., Tzortzis, G., Edwards, A., Charalampopoulos, D., Khutoryanskiy, V.V. CLSM method for the dynamic observation of pH change within polymer matrices for oral delivery (2013) Biomacromolecules, 14 (2), pp. 387-393.
16. Guo, M., Cao, X., Meijer, E.W., Dankers, P.Y.W. Core-Shell Capsules Based on Supramolecular Hydrogels Show Shell-Related Erosion and Release Due to Confinement (2013) Macromolecular Bioscience, 13 (1), pp. 77-83.
17. Tu, F., Lee, D. Controlling the stability and size of double-emulsion-templated poly(lactic- co -glycolic) acid microcapsules (2012) Langmuir, 28 (26), pp. 9944-9952.
18. Laroui, H., Sitaraman, S.V., Merlin, D. Gastrointestinal delivery of anti-inflammatory nanoparticles (2012) Methods in Enzymology, 509, pp. 101-125.
19. Loh, Q.L., Wong, Y.Y., Choong, C. Combinatorial effect of different alginate compositions, polycations, and gelling ions on microcapsule properties (2012) Colloid and Polymer Science, 290 (7), pp. 619-629.
20. Wright, B., Cave, R.A., Cook, J.P., Khutoryanskiy, V.V., Mi, S., Chen, B., Leyland, M., Connon, C.J. Enhanced viability of corneal epithelial cells for efficient transport/storage using a structurally modified calcium alginate hydrogel (2012) Regenerative Medicine, 7 (3), pp. 295-307.
21. Kesselman, L.R.B., Shinwary, S., Selvaganapathy, P.R., Hoare, T. Synthesis of monodisperse, covalently cross-linked, degradable "smart" microgels using microfluidics (2012) Small, 8 (7), pp. 1092-1098.
22. Murtaza, G., Waseem, A., Nisar-ur-Rehman, Hussain, I. Alginate microparticles for biodelivery: A review (2011) African Journal of Pharmacy and Pharmacology, 5 (25), pp. 2726-2737.
23. Ranganath, S.H., Ling Tan, A., He, F., Wang, C.-H., Krantz, W.B. Control and enhancement of permselectivity of membrane-based microcapsules for favorable biomolecular transport and immunoisolation. (2011) AIChE Journal, 57 (11), pp. 3052-3062.
24. Matte, U., Lagranha, V.L., De Carvalho, T.G., Mayer, F.Q., Giugliani, R. Cell microencapsulation: A potential tool for the treatment of neuronopathic lysosomal storage diseases (2011) Journal of Inherited Metabolic Disease, 34 (5), pp. 983-990.
25. Chen, Z., Wang, L., Stegemann, J.P. Phase-separated chitosan-fibrin microbeads for cell delivery (2011) Journal of Microencapsulation, 28 (5), pp. 344-352.
26. Ren, P.-W., Ju, X.-J., Xie, R., Chu, L.-Y. Monodisperse alginate microcapsules with oil core generated from a microfluidic device (2010) Journal of Colloid and Interface Science, 343 (1), pp. 392-395.
27. Oh, J.K. Engineering of nanometer-sized cross-linked hydrogels for biomedical applications (2010) Canadian Journal of Chemistry, 88 (3), pp. 173-184.
28. Oh, J.K., Lee, D.I., Park, J.M. Biopolymer-based microgels/nanogels for drug delivery applications (2009) Progress in Polymer Science (Oxford), 34 (12), pp. 1261-1282.
29. Matthias Löhr, J., Heuchel, R., Jesnowski, R., Wallrapp, C. Therapy with cell encapsulation for substitution of organ function and tumor treatment (2009) Advanced Engineering Materials, 11 (8).

J09: *PNIPAAm- grafted- collagen as an injectable in situ gelling, bioactive drug delivery scaffolds.*

1. Gerges, I., Tamplenizza, M., Rossi, E., Tocchio, A., Martello, F., Recordati, C., Kumar, D., Forsyth, N.R., Liu, Y., Lenardi, C. A Tailor-Made Synthetic Polymer for Cell Encapsulation: Design Rationale, Synthesis, Chemical–Physics and Biological Characterizations (2016) Macromolecular Bioscience, pp. 870-881.
2. Liu, H., Liu, J., Qi, C., Fang, Y., Zhang, L., Zhuo, R., Jiang, X. Thermosensitive injectable in-situ forming carboxymethyl chitin hydrogel for three-dimensional cell culture (2016) Acta Biomaterialia, 35, pp. 228-237.
3. Barnes, A.L., Genever, P.G., Rimmer, S., Coles, M.C. Collagen- Poly(N-isopropylacrylamide) Hydrogels with Tunable Properties (2016) Biomacromolecules, 17 (3), pp. 723-734.
4. Lü, S., Gao, C., Xu, X., Bai, X., Duan, H., Gao, N., Feng, C., Xiong, Y., Liu, M. Injectable and Self-Healing Carbohydrate-Based Hydrogel for Cell Encapsulation (2015) ACS Applied Materials and Interfaces, 7 (23), pp. 13029-13037.
5. Sundaresan, V., Menon, J.U., Rahimi, M., Nguyen, K.T., Wadajkar, A.S. Dual-responsive polymer-coated iron oxide nanoparticles for drug delivery and imaging applications (2014) International Journal of Pharmaceutics, 466 (1-2), pp. 1-7.
6. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Cell-Based Therapy for Retinal Degenerative Disease, 53, pp. 143-154.
7. Cheng, Y., Nada, A.A., Valmikinathan, C.M., Lee, P., Liang, D., Yu, X., Kumbar, S.G. In situ gelling polysaccharide-based hydrogel for cell and drug delivery in tissue engineering (2014) Journal of Applied Polymer Science, 131 (4), art. no. 39934.
8. Tzoc Torres, J.M.G., Nichols, E., Macgregor, J.F., Hoare, T. Designing multi-responsive polymers using latent variable methods (2014) Polymer (United Kingdom), 55 (2), pp. 505-516.
9. Campbell, S.B., Yang, J., Wu, W.-I., Selvaganapathy, P.R., Hoare, T.R. Design of a microinjection device for injection of in situ gelling hydrogels for ophthalmic drug delivery (2014) Nanoscale Science and Engineering Forum 2013 - Core Programming Area at the 2013 AIChE Annual Meeting: Global Challenges for Engineering a Sustainable Future, pp. 389-392.
10. Wang, C., Wu, J., Bernard, G.M. Preparation and characterization of canola protein isolate-poly(glycidyl methacrylate) conjugates: A bio-based adhesive (2014) Industrial Crops and Products, 57, pp. 124-131.
11. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Developments in Ophthalmology, 53, pp. 143-154.
12. Patenaude, M., Smeets, N.M.B., Hoare, T. Designing injectable, covalently cross-linked hydrogels for biomedical applications (2014) Macromolecular Rapid Communications, 35 (6), pp. 598-617.
13. Samanta, D., Murali, A., Jaya Prakash, A., Nagaraju, P., Ramesh, R., Mitra, T., Gnanamani, A., Jaisankar, S.N., Mohan, R., Alam, M.S., Mandal, A.B. Chromium-assisted immobilization of N-isopropylacrylamide-based methacrylic acid copolymers on collagen and leather surfaces: Thermo-responsive behavior (2013) RSC Advances, 3 (37), pp. 16626-16631.
14. Da Silva, G.R., Silva-Cunha Jr., A.D., Vieira, L.C., Silva, L.M., Ayres, E., Oréfice, R.L., Fialho, S.L., Saliba, J.B., Behar-Cohen, F. Montmorillonite clay based polyurethane nanocomposite as substrate for retinal pigment epithelial cell growth (2013) Journal of Materials Science: Materials in Medicine, 24 (5), pp. 1309-1317.

15. Lian, S., Xiao, Y., Bian, Q., Xia, Y., Guo, C., Wang, S., Lang, M. Injectable hydrogel as stem cell scaffolds from the thermosensitive terpolymer of NIPAAm/AAc/HEMAPCL (2012) International Journal of Nanomedicine, 7, pp. 4893-4905.
16. Chen, J.-P., Kuo, C.-Y., Lee, W.-L. Thermo-responsive wound dressings by grafting chitosan and poly(N-isopropylacrylamide) to plasma-induced graft polymerization modified non-woven fabrics (2012) Applied Surface Science, 262, pp. 95-101.
17. Garg, T., Singh, O., Arora, S., Murthy, R.S.R. Scaffold: A novel carrier for cell and drug delivery (2012) Critical Reviews in Therapeutic Drug Carrier Systems, 29 (1), pp. 1-63.
18. Jiang, B., Larson, J.C., Drapala, P.W., Pérez-Luna, V.H., Kang-Mieler, J.J., Brey, E.M. Investigation of lysine acrylate containing poly(N-isopropylacrylamide) hydrogels as wound dressings in normal and infected wounds (2012) Journal of Biomedical Materials Research - Part B Applied Biomaterials, 100 B (3), pp. 668-676.
19. Rahman, C.V., Saeed, A., White, L.J., Gould, T.W.A., Kirby, G.T.S., Sawkins, M.J., Alexander, C., Rose, F.R.A.J., Shakesheff, K.M. Chemistry of polymer and ceramic-based injectable scaffolds and their applications in regenerative medicine (2012) Chemistry of Materials, 24 (5), pp. 781-795.
20. Lai, J.-Y., Hsieh, A.-C. A gelatin-g-poly(N-isopropylacrylamide) biodegradable in situ gelling delivery system for the intracameral administration of pilocarpine (2012) Biomaterials, 33 (7), pp. 2372-2387.
21. Patenaude, M., Hoare, T. Injectable, mixed natural-synthetic polymer hydrogels with modular properties (2012) Biomacromolecules, 13 (2), pp. 369-378.
22. Munarin, F., Petrini, P., Bozzini, S., Tanzi, M.C. New perspectives in cell delivery systems for tissue regeneration: Natural-derived injectable hydrogels (2012) Journal of Applied Biomaterials and Functional Materials, 10 (2), pp. 67-81.
23. Zou, L., Nair, A., Weng, H., Tsai, Y.-T., Hu, Z., Tang, L. Intraocular pressure changes: An important determinant of the biocompatibility of intravitreous implants (2011) PLoS ONE, 6 (12), art. no. e28720.
24. Lü, S., Li, B., Ni, B., Sun, Z., Liu, M., Wang, Q. Thermoresponsive injectable hydrogel for three-dimensional cell culture: Chondroitin sulfate bioconjugated with poly(N isopropylacrylamide) synthesized by RAFT polymerization (2011) Soft Matter, 7 (22), pp. 10763-10772.
25. Liao, H.-T., Chen, C.-T., Chen, J.-P. Osteogenic differentiation and ectopic bone formation of canine bone marrow-derived mesenchymal stem cells in injectable thermo-responsive polymer hydrogel (2011) Tissue Engineering - Part C: Methods, 17 (11), pp. 1139-1149.
26. Glampedaki, P., Dutschk, V., Jocic, D., Warmoeskerken, M.M. Functional finishing of aminated polyester using biopolymer-based polyelectrolyte microgels (2011) Biotechnology Journal, 6 (10), pp. 1219-1229.
27. Hartwell, R., Leung, V., Chavez-Munoz, C., Nabai, L., Yang, H., Ko, F., Ghahary, A. A novel hydrogel-collagen composite improves functionality of an injectable extracellular matrix (2011) Acta Biomaterialia, 7 (8), pp. 3060-3069.
28. Sun, T., Qing, G. Biomimetic smart interface materials for biological applications (2011) Advanced Materials, 23 (12).

J10: *High T_g Microspheres by Dispersion Copolymerization of N-Phenylmaleimide with Styrenic or Alkyl Vinyl Ether Monomers.*

1. Cortes Hernandez, H.F., Castro, M. Effects of the charge on the structural, electronic and reactivity properties of 43 substituted N–Phenylmaleimides. A DFT study (2016) Journal of Molecular Structure, 1125, pp. 79-92.

2. Wang, C., Zhang, X., Podgórski, M., Xi, W., Shah, P., Stansbury, J., Bowman, C.N. Monodispersity/Narrow Polydispersity Cross-Linked Microparticles Prepared by Step-Growth Thiol-Michael Addition Dispersion Polymerizations (2015) Macromolecules, 48 (23), pp. 8461-8470.
3. Rudolph, T., Espeel, P., Du Prez, F.E., Schacher, F.H. Poly(thiolactone) homo- and copolymers from maleimide thiolactone: Synthesis and functionalization (2015) Polymer Chemistry, 6 (23), pp. 4240-4251.
4. Chen, Y., Tong, L., Zhang, D., Yang, W., Deng, J. Thermostable microspheres consisting of poly(N-phenylmaleimide-co-α- methyl styrene) prepared by precipitation polymerization (2012) Industrial and Engineering Chemistry Research, 51 (48), pp. 15610-15617.
5. Tan, J., Rao, X., Wu, X., Deng, H., Yang, J., Zeng, Z. Photoinitiated RAFT dispersion polymerization: A straightforward approach toward highly monodisperse functional microspheres (2012) Macromolecules, 45 (21), pp. 8790-8795.
6. Tong, L., Cui, X., Yang, W., Deng, J. Heat-resistant poly(N-(1-phenylethyl)maleimide-co-styrene) microspheres prepared by dispersion polymerization (2012) Journal of Materials Chemistry, 22 (14), pp. 6697-6703.

J11: *Polyurea Microcapsules: Surface Modifications and Capsule Size Control.*

1. Jerri, H.A., Jacquemond, M., Hansen, C., Ouali, L., Erni, P. "Suction Caps": Designing Anisotropic Core/Shell Microcapsules with Controlled Membrane Mechanics and Substrate Affinity (2016) Advanced Functional Materials, 26 (34), pp. 6224-6237.
2. Ichiura, H., Yamamoto, K.-I., Ohtani, Y. Polyurea films prepared by interfacial polymerization on a paper surface: sustained release of N,N-diethyl-3-methylbenzamide (2015) Polymer Bulletin, 72 (10), pp. 2621-2632.
3. Li, J., Hughes, A.D., Kalantar, T.H., Drake, I.J., Tucker, C.J., Moore, J.S. Pickering-emulsion-templated encapsulation of a hydrophilic amine and its enhanced stability using poly(allyl amine) (2014) ACS Macro Letters, 3 (10), pp. 976-980.
4. Hedaoo, R.K., Tatiya, P.D., Mahulikar, P.P., Gite, V.V. Fabrication of dendritic 0 G PAMAM-based novel polyurea microcapsules for encapsulation of herbicide and release rate from polymer shell in different environment (2014) Designed Monomers and Polymers, 17 (2), pp. 111-125.
5. Breul, A.M., Hager, M.D., Schubert, U.S. Fluorescent monomers as building blocks for dye labeled polymers: Synthesis and application in energy conversion, biolabeling and sensors (2013) Chemical Society Reviews, 42 (12), pp. 5366-5407.
6. He, S., Zhang, W., Li, D., Li, P., Zhu, Y., Ao, M., Li, J., Cao, Y. Preparation and characterization of double-shelled avermectin microcapsules based on copolymer matrix of silica-glutaraldehyde-chitosan (2013) Journal of Materials Chemistry B, 1 (9), pp. 1270-1278.
7. Dispinar, T., Colard, C.A.L., Du Prez, F.E. Polyurea microcapsules with a photocleavable shell: UV-triggered release (2013) Polymer Chemistry, 4 (3), pp. 763-772.
8. Jiang, X., Zhu, X., Kong, X.Z. A facile route to preparation of uniform polymer microspheres by quiescent polymerization with reactor standing still without any stirring (2012) Chemical Engineering Journal, 213, pp. 214-217.
9. He, W., Gu, X., Liu, S. Surfactant-free one-step synthesis of dual-functional polyurea microcapsules: Contact infection control and drug delivery (2012) Advanced Functional Materials, 22 (19), pp. 4023-4031.

10. Collins, B.A., Ade, H. Quantitative compositional analysis of organic thin films using transmission NEXAFS spectroscopy in an X-ray microscope (2012) Journal of Electron Spectroscopy and Related Phenomena, 185 (5-7), pp. 119-128.
11. Watts, B., Ade, H. NEXAFS imaging of synthetic organic materials (2012) Materials Today, 15 (4), pp. 148-157.
12. Bounds, C.O., Goetter, R., Pojman, J.A., Vandersall, M. Preparation and application of microparticles prepared via the primary amine-catalyzed michael addition of a trithiol to a triacrylate (2012) Journal of Polymer Science, Part A: Polymer Chemistry, 50 (3), pp. 409-422.

J12: Cell-Adhesive Thermo-Gelling PNIPAAm / Hyaluronic Acid Cell Delivery Hydrogels for Non-Invasive Retinal Therapeutics.

1. Hussain, A., Zia, K.M., Tabasum, S., Noreen, A., Ali, M., Iqbal, R. Zuber, M. Blends and composites of exopolysaccharides; properties and applications: A review (Review), International Journal of Biological Macromolecules, (2017), 94, pp. 10-27.
2. Laughter, M.R., Ammar, D.A., Bardill, J.R., Pena, B., Kahook, M.Y., Lee, D.J., Park, D. A Self-Assembling Injectable Biomimetic Microenvironment Encourages Retinal Ganglion Cell Axon Extension in Vitro (2016) ACS Applied Materials and Interfaces, 8 (32), pp. 20540-20548.
3. Das, A., Theato, P. Activated Ester Containing Polymers: Opportunities and Challenges for the Design of Functional Macromolecules (2016) Chemical Reviews, 116 (3), pp. 1434-1495.
4. Lai, J.-Y. Hyaluronic acid concentration-mediated changes in structure and function of porous carriers for corneal endothelial cell sheet delivery (2016) Materials Science and Engineering C, 59, pp. 411-419.
5. Kirchhof, S., Goepferich, A.M., Brandl, F.P. Hydrogels in ophthalmic applications (2015) European Journal of Pharmaceutics and Biopharmaceutics, 95, pp. 227-238.
6. Pérez-Perrino, M., Molina, S., Navarro, R. Polymer brushes with precise architectures for molecular biorecognition (2015) Design of Polymeric Platforms for Selective Biorecognition, pp. 273-303.
7. Seelbach, R.J., Fransen, P., Pulido, D., D'Este, M., Duttenhoefer, F., Sauerbier, S., Freiman, T.M., Niemeyer, P., Albericio, F., Alini, M., Royo, M., Mata, A., Eglin, D. Injectable Hyaluronan Hydrogels with Peptide-Binding Dendrimers Modulate the Controlled Release of BMP-2 and TGF-β1 (2015) Macromolecular Bioscience, 15 (8), pp. 1035-1044.
8. Nakagawa, Y., Nakasako, S., Ohta, S., Ito, T. A biocompatible calcium salt of hyaluronic acid grafted with polyacrylic acid (2015) Carbohydrate Polymers, 117, pp. 43-53.
9. Laver, C.R.J., Metcalfe, A.L., Szczygiel, L., Yanai, A., Sarunic, M.V., Gregory-Evans, K. Bimodal in vivo imaging provides early assessment of stem-cell-based photoreceptor engraftment (2015) Eye (Basingstoke), 29 (5), pp. 681-690.
10. Seelbach, R.J., D'Este, M., Alini, M., Mata, A., Eglin, D. Copper catalyst efficiency for the CuAAC synthesis of a poly(N-isopropylacrylamide) conjugated hyaluronan (2015) Clinical Hemorheology and Microcirculation, 60 (1), pp. 25-37.
11. Ruan, J., Qian, S., Yao, J. Development of polymer scaffolds for retinal stem cell transplantation (2015) Zhonghua Shiyan Yanke Zazhi/Chinese Journal of Experimental Ophthalmology, 33 (9), pp. 848-852.
12. Peptu, C.A., Popa, M., Savin, C., Popa, R.F., Ochiuz, L. Modern drug delivery systems for targeting the posterior segment of the Eye (2015) Current Pharmaceutical Design, 21 (42), pp. 6055-6069.

13. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Cell-Based Therapy for Retinal Degenerative Disease, 53, pp. 143-154.
14. Zheng, D., An, Y.Y., Yang, S., Wu, W., Xu, W., Liu, G., Yang, C., Dan, Y., Xu, Z., Wu, S. Self-assembled glucose and thermo dual-responsive micelles of an amphiphilic graft copolymer (2014) International Journal of Polymeric Materials and Polymeric Biomaterials, 63 (3), pp. 115-122.
15. Kvanta, A., Grudzinska, M.K. Stem cell-based treatment in geographic atrophy: Promises and pitfalls (2014) Acta Ophthalmologica, 92 (1), pp. 21-26.
16. Seelbach, R.J., Fransen, P., Peroglio, M., Pulido, D., Lopez-Chicon, P., Duttenhoefer, F., Sauerbier, S., Freiman, T., Niemeyer, P., Semino, C., Albericio, F., Alini, M., Royo, M., Mata, A., Eglin, D. Multivalent dendrimers presenting spatially controlled clusters of binding epitopes in thermoresponsive hyaluronan hydrogels (2014) Acta Biomaterialia, 10 (10), pp. 4340-4350.
17. Zarembinski, T.I., Doty, N.J., Erickson, I.E., Srinivas, R., Wirostko, B.M., Tew, W.P. Thiolated hyaluronan-based hydrogels crosslinked using oxidized glutathione: An injectable matrix designed for ophthalmic applications (2014) Acta Biomaterialia, 10 (1), pp. 94-103.
18. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Developments in Ophthalmology, 53, pp. 143-154.
19. Dou, Q.Q., Liow, S.S., Ye, E., Lakshminarayanan, R., Loh, X.J. Biodegradable thermogelling polymers: Working towards clinical applications (2014) Advanced Healthcare Materials, 3 (7), pp. 977-988.
20. Zhang, J.-T., Chao, X., Liu, X., Asher, S.A. Two-dimensional array Debye ring diffraction protein recognition sensing (2013) Chemical Communications, 49 (57), pp. 6337-6339.
21. Jiang, H., Xu, F.-J. Biomolecule-functionalized polymer brushes (2013) Chemical Society Reviews, 42 (8), pp. 3394-3426.

J13: *Development of an Injectable, Resorbable Drug-Releasing Copolymer Scaffold for Long-term Ophthalmic Delivery.*

1. Mehra, N.K., Cai, D., Kuo, L., Hein, T., Palakurthi, S. Safety and toxicity of nanomaterials for ocular drug delivery applications (2016) Nanotoxicology, 10 (7), pp. 836-860.
2. Di Foggia, V., Makwana, P., Ali, R.R., Sowden, J.C. Induced pluripotent stem cell therapies for degenerative disease of the outer retina: Disease modeling and cell replacement (2016) Journal of Ocular Pharmacology and Therapeutics, 32 (5), pp. 240-252.
3. Zhao, L., Xiao, C., Wang, L., Gai, G., Ding, J. Glucose-sensitive polymer nanoparticles for self-regulated drug delivery (2016) Chemical Communications, 52 (49), pp. 7633-7652.
4. Xie, B., Jin, L., Luo, Z., Yu, J., Shi, S., Zhang, Z., Shen, M., Chen, H., Li, X., Song, Z. An injectable thermosensitive polymeric hydrogel for sustained release of Avastin1 to treat posterior segment disease (2015) International Journal of Pharmaceutics, 490 (1-2), pp. 375-383.
5. Chen, Y.-S., Green, C.R., Wang, K., Danesh-Meyer, H.V., Rupenthal, I.D. Sustained intravitreal delivery of connexin43 mimetic peptide by poly(d,l-lactide-co-glycolide) acid

micro- and nanoparticles - Closing the gap in retinal ischaemia, (2014) European Journal of Pharmaceutics and Biopharmaceutics, 95, pp. 378-386.
6. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Cell-Based Therapy for Retinal Degenerative Disease, 53, pp. 143-154.
7. Vo, T.N., Ekenseair, A.K., Kasper, F.K., Mikos, A.G. Synthesis, physicochemical characterization, and cytocompatibility of bioresorbable, dual-gelling injectable hydrogels (2014) Biomacromolecules, 15 (1), pp. 132-142.
8. Kundu, J., Michaelson, A., Baranov, P., Young, M.J., Carrier, R.L. Approaches to cell delivery: Substrates and scaffolds for cell therapy (2014) Developments in Ophthalmology, 53, pp. 143-154.
9. Mishra, S., De, A., Mozumdar, S. Synthesis of thermoresponsive polymers for drug delivery (2014) Methods in Molecular Biology, 1141, pp. 77-101.
10. Mishra, S., De, A., Mozumdar, S. Synthesis of thermoresponsive polymers for drug delivery (2014) Methods in Molecular Biology, 1141, pp. 77-101.
11. Fathi, A., Wei, H., Chrzanowski, W., Weiss, A.S., Dehghani, F. Synthesis of functionalized-thermo responsive-water soluble co-polymer for conjugation to protein for biomedical applications (2013) Materials Research Society Symposium Proceedings, 1498, pp. 121-125.
12. Zhao, L., Xiao, C., Ding, J., He, P., Tang, Z., Pang, X., Zhuang, X., Chen, X. Facile one-pot synthesis of glucose-sensitive nanogel via thiol-ene click chemistry for self-regulated drug delivery (2013) Acta Biomaterialia, 9 (5), pp. 6535-6543.

J15: *Temperature sensitive polymers for drug delivery.*

1. Katz, E. Modified Electrodes and Electrochemical Systems Switchable by Temperature Changes (2016) Electroanalysis, 28 (9), pp. 1916-1929.
2. Muzzalupo, R., Tavano, L. Advances on magnetic nanocarriers based on natural polymers (2016) Current Pharmaceutical Design, 22 (22), pp. 3353-3363.
3. Karimi, M., Ghasemi, A., Sahandi Zangabad, P., Rahighi, R., Moosavi Basri, S.M., Mirshekari, H., Amiri, M., Shafaei Pishabad, Z., Aslani, A., Bozorgomid, M., Ghosh, D., Beyzavi, A., Vaseghi, A., Aref, A.R., Haghani, L., Bahrami, S., Hamblin, M.R. Smart micro/nanoparticles in stimulus-responsive drug/gene delivery systems (2016) Chemical Society Reviews, 45 (5), pp. 1457-1501.
4. Hu, L.-L., Zhang, D.-D., Zhang, Y., Shu, Y., Chen, X.-W., Wang, J.-H. Glutathione functionalized mesoporous organosilica conjugate for drug delivery (2016) RSC Advances, 6 (61), pp. 56287-56293.
5. Arachchige, M.C.M., Reshetnyak, Y.K., Andreev, O.A. Advanced targeted nanomedicine (2015) Journal of Biotechnology, 202, pp. 88-97.
6. Zhang, Y., Ding, J., Sun, D., Sun, H., Zhuang, X., Chang, F., Wang, J., Chen, X. Thermogel-mediated sustained drug delivery for in situ malignancy chemotherapy (2015) Materials Science and Engineering C, 49, pp. 262-268.
7. Takemura, K., Ajiro, H., Fujiwara, T., Akashi, M. A novel substrate for testosterone: Biodegradable and biocompatible oil gel (2015) Polymer Journal, 47 (6), pp. 460-463.
8. Budkov, Y.A., Kolesnikov, A.L., Kiselev, M.G. Communication: Polarizable polymer chain under external electric field in a dilute polymer solution (2015) Journal of Chemical Physics, 143 (20), art. No. 201102.
9. Yildiz, I., Sizirici Yildiz, B. Applications of thermoresponsive magnetic nanoparticles (2015) Journal of Nanomaterials, 2015, art. No. 350596.

10. Budkov, Y.A., Kolesnikov, A.L., Georgi, N., Kiselev, M.G. A statistical theory of cosolvent-induced coil-globule transitions in dilute polymer solution (2014) Journal of Chemical Physics, 141 (1), art. no. 014902.
11. Takemura, K., Ajiro, H., Fujiwara, T., Akashi, M. Oil gels with a chemically cross-linked copolymer of a trimethylene carbonate derivative and l-lactide: Preparation and stereocomplex formation within gels. (2014) RSC Advances, 4 (63), pp. 33462-33465.
12. Li, B., Lu, X., Ma, Y., Chen, Z. Thermo- and pH-responsive behaviors of aqueous poly(acrylic acid)/poly(4-vinylpyridine) complex material characterized by ATR-FTIR and UV-Vis Spectroscopy (2014) European Polymer Journal, 60, pp. 255-261.

J16: *Multicomponent catalysts with spinel structure for the selective reduction of nitrogen oxide by ethylene in lean exhaust gas streams.*

1. Ferreira, N.M., Ferro, M.C., Mikhalev, S.M., Costa, F.M., Frade, J.R., Kovalevsky, A.V. Guidelines to design multicomponent ferrospinels for high-temperature applications (2016) RSC Advances, 6 (39), pp. 32540-32548.

J17: *Biomedical perspective of polyaniline based biosensors.*

1. Gu, H., Guo, J., Yan, X., Wei, H., Zhang, X., Liu, J., Huang, Y., Wei, S., Guo, Z. Electrical transport and magnetoresistance in advanced polyaniline nanostructures and nanocomposites (2014) Polymer (United Kingdom), 55 (17), pp. 4405-4419.

J19: *Coexistence curves of aqueous two-phase systems of some pH- responsive homo- and copolymers of 3-(diallylammnio)propane-1-sulfonate and urethanized poly(ethanol) or poly(oxyethylene).*

1. Zhi, Y., Wu, J., Ma, A., Tian, N., Shan, S., Jia, Q., Su, H. Efficient alternating copolymerization of sulfur dioxide with cyclohexene oxide and a mechanistic understanding (2016) RSC Advances, 6 (39), pp. 32881-32886.
2. Laschewsky, A. Structures and synthesis of zwitterionic polymers (2014) Polymers, 6 (5), pp. 1544-1601.

J21: *Design and synthesis of a novel class of inhibitors for mild steel corrosion in acidic and carbon dioxide-saturated saline media.*

1. Zhang, J., Liu, Z., Han, G.-C., Chen, S.-L., Chen, Z. Inhibition of copper corrosion by the formation of Schiff base self-assembled monolayers (2016) Applied Surface Science, 389, pp. 601-608.
2. Qiang, Y., Guo, L., Zhang, S., Li, W., Yu, S., Tan, J. Synergistic effect of tartaric acid with 2,6-diaminopyridine on the corrosion inhibition of mild steel in 0.5 M HCl (2016) Scientific Reports, 6, art. no. 33305.
3. Guan, X., Zhang, D., Zhang, J., Wang, J., Jin, Y., Zhang, J. Electrochemical and Molecular Dynamics Evaluation on Inhibition Performance of 2-(1-Methyl-Nonyl)-Quinoline (2016) Journal of Dispersion Science and Technology, 37 (8), pp. 1140-1151.
4. Dogru Mert, B., Mert, M.E., Kardas, G., Yazici, B. The experimental and quantum chemical investigation for two isomeric compounds as aminopyrazine and 2-amino-pyrimidine against mild steel corrosion (2016) Anti-Corrosion Methods and Materials, 63 (5), pp. 369-376.
5. Ilim, Jefferson, A., Simanjuntak, W., Jeannin, M., Syah, Y.M., Bundjali, B., Buchari. Synthesis and characterization of oligomer 4-vinylpyridine as a corrosion inhibitor for

mild steel in CO_2 saturated brine solution (2016) Indonesian Journal of Chemistry, 16 (2), pp. 198-207.
6. Sığircik, G., Tüken, T., Erbil, M. Assessment of the inhibition efficiency of 3,4-diaminobenzonitrile against the corrosion of steel (2016) Corrosion Science, 102, pp. 437-445.
7. Zhu, Y., Free, M.L., Yi, G. Electrochemical measurement, modeling, and prediction of corrosion inhibition efficiency of ternary mixtures of homologous surfactants in salt solution (2015) Corrosion Science, 98, pp. 417-429.
8. Li, H., Li, H., Liu, Y., Huang, X. Synthesis of polyamine grafted chitosan copolymer and evaluation of its corrosion inhibition performance (2015) Journal of the Korean Chemical Society, 59 (2), pp. 142-147.
9. Wang, Y., Liu, Z., Li, D., Dong, Y., Li, W., Li, N. The polymeric nanofilm of triazinedithiolsilane fabricated by self-assembled technique on copper surface. Part 1: Design route and corrosion resistance (2015) Corrosion Science, 98, pp. 382-390.
10. Morales-Gil, P., Walczak, M.S., Camargo, C.R., Cottis, R.A., Romero, J.M., Lindsay, R. Corrosion inhibition of carbon-steel with 2-mercaptobenzimidazole in hydrochloric acid (2015) Corrosion Science, 101, pp. 47-55.

J22: *Advanced Materials for Gene Delivery.*

1. Hamed, I., Özogul, F., Regenstein, J.M. Industrial applications of crustacean by-products (chitin, chitosan, and chitooligosaccharides): A review (2016) Trends in Food Science and Technology, 48, pp. 40-50.

J23: *The effects of N-pendants and electron-rich amidine motifs in 2(p-alkoxyphenyl)-2-imidazolines on mild steel corrosion in CO_2-saturated 0.5M NaCl.*

1. Liu, H., Gu, T., Zhang, G., Wang, W., Dong, S., Cheng, Y., Liu, H. Corrosion inhibition of carbon steel in CO_2-containing oilfield produced water in the presence of iron-oxidizing bacteria and inhibitors (2016) Corrosion Science, 105, pp. 149-160.
2. Zhu, Y., Free, M.L., Yi, G. Electrochemical measurement, modeling, and prediction of corrosion inhibition efficiency of ternary mixtures of homologous surfactants in salt solution (2015) Corrosion Science, 98, pp. 417-429.
3. Gou, S., Luo, S., Liu, T., Xia, H., Jing, D., Zhang, Q., Li, S., Li, Z., Guo, Q. Thermally stable imidazoline-based sulfonate copolymers for enhanced oil recovery. (2015) RSC Advances, 5 (104), pp. 85165-85173.
4. Zhang, H.-H., Pang, X., Zhou, M., Liu, C., Wei, L., Gao, K. The behavior of pre-corrosion effect on the performance of imidazoline-based inhibitor in 3 wt.% NaCl solution saturated with CO_2 (2015) Applied Surface Science, 356, pp. 63-72.
5. Zheng, X., Zhang, S., Li, W., Gong, M., Yin, L. Experimental and theoretical studies of two imidazolium-based ionic liquids as inhibitors for mild steel in sulfuric acid solution (2015) Corrosion Science, 95, pp. 168-179.

BC1: *Synthetic reactive polyelectrolytes for cell encapsulation.*

1. Gimi, B., Nemani, K.V. Advances in alginate gel microencapsulation of therapeutic cells (2014) Critical Reviews in Biomedical Engineering, 41 (6), pp. 469-481.

Appendix C

Supporting Documents

10 Future September 10, 2013 (4 Dhual Qaddah 1434H)

KFUPM professors, lecturers and researchers visit Exova Company

A group of professors, lecturers and researchers from King Fahd University of Petroleum & Minerals was invited to visit Exova Group Ltd. located in Dammam Second Industrial area on Wednesday the 22nd of May 2013. The aim of the visit is to promote the good relationship between the two companies in terms of Innovative technology.

The Exova Group Ltd is a leading provider of independent testing, monitoring and advisory services operating an international network of 115 laboratories located in more than 25 countries throughout the Middle East, Europe, Scandinavia, the United States, Canada and South America.

The laboratory facilities established in the Eastern Province will enable Exova Saudi Arabia to provide a wide range of laboratory based services as well as on-site testing & monitoring services.

The initial range of services of Exova will include Environmental monitoring & analytical services, Chemical analysis, Metallurgical testing & inspection services, Microbiological testing & analytical services, Civil Engineering testing and Technical advisory services.

During the visit the group had a short briefing from the different department managers of the company about laboratory facilities.

This year the Exova Group Ltd participated in the 30th Career Day of the King Fahd University of Petroleum & Minerals held in April of 2013.

Dr. Mazumder and Dr. Al-Ahmed edited a book

Dr. Mohammad A. Jafar Mazumder

Dr. Amir-Al-Ahmed

Dr. Mohammad A. Jafar Mazumder of the Chemistry Department and Dr. Amir-Al-Ahmed of CORERE, have recently (August, 2013) edited a book on Material Science. The title of the book is **"Advance Medical Materials and Applications", ISBN-13: 978 -3 - 03785 -859- 2** , published by Trans Tech Publication, Switzerland. This book demonstrates how advanced biomaterials and bioinspired materials, controll biology with materials, and how the development of devices and enabling technologies may be employed, not only in therapeutic applications but also in aiding diagnosis and treatment in medical science. The book's content reflects the true interdisciplinary nature of biomaterials science, describes the scientific background and thoroughly discusses the sequences of new development and applications of advanced materials in biomedical engineering, biology and medicine. It also discusses how this delivers real benefits in health care technology and quality of life.

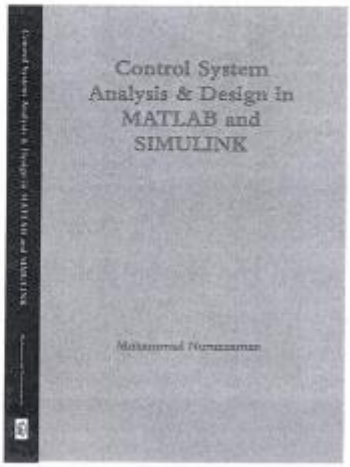
EE faculty had his eleventh title published

Mohammad Nuruzzaman

Mohammad Nuruzzaman, a faculty working in the Electrical Engineering Department, had his eleventh title *"Control System Analysis & Design in MATLAB and SIMULINK"* (June 19, 2014, ISBN: 978-1-312-13951-0) published from Lulu Press, Inc., Raleigh, North Carolina, USA. The text is blueprinted to solve undergraduate control system engineering problems in MATLAB platform. Unified view of control system fundamentals is taken into account in the text. One key aspect of the text is the presentation of computing and graphing materials in a simple intuitive way. Many advances in virtual implementation on control systems have been seen in the past decade. The text elucidates the web of concepts underpinning these advances. Self-working out illustrations and end-of-chapter exercises enthuse the reader a checkup on thorough understanding. The comprehensive introduction will benefit both undergraduates and graduates studying control system and engineering. Also researchers in the field can have the text as reference.

Other titles from the author are the following: Title 1: *"Finite Difference Fundamentals in MATLAB"*, 2013, Createspace, South Carolina, Title 2: *"Digital Image: Theories, Algorithms, and Applications"*, 2012, CreateSpace, Washington, Title 3: *"Digital Audio Fundamentals in MATLAB"*, 2010, Createspace, California, Title 4: *"Modern Approach to Solving Electromagnetics in MATLAB"*, 2009, BookSurge Publishing, South Carolina, Title 5: *"Signal and System Fundamentals in MATLAB and SIMULINK"*, 2008, BookSurge Publishing, South Carolina, Title 6: *"Electric Circuit Fundamentals in MATLAB and SIMULINK"*, 2007, BookSurge Publishing, South Carolina, Title 7: *"Technical Computation and Visualization in MATLAB for Engineers and Scientists"*, 2007, AuthorHouse, Indiana, Title 8: *"Digital Image Fundamentals in MATLAB"*, 2005, AuthorHouse, Indiana, Title 9: *"Modeling and Simulation in SIMULINK for Engineers and Scientists"*, 2005, AuthorHouse, Indiana, and Title 10: *"Tutorials on Mathematics to MATLAB"*, 2003, AuthorHouse, Indiana.

Some institutes whose senior faculties have appreciations for the author-written texts are the following: The U. of Toledo – USA, Utah State U. – USA, National U. of Singapore – Singapore, California State U. – USA, U. of Brescia – Italy, Staten Island College – USA, U. of South Florida – USA, U. of Saskatchewan – Canada, and many more.

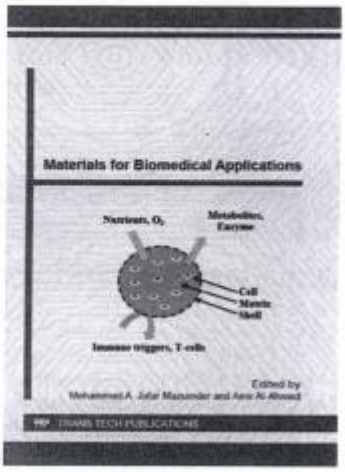


Dr. Mazumder and Dr. Al-Ahmed edited a book

Dr. Mohammad Mazumder

Dr. Amir-Al-Ahmed

Dr. Mohammad A. Jafar Mazumder of Chemistry Department and Dr. Amir-Al-Ahmed of Center of Research Excellence in Renewable Energy has edited another book (ISBN: 978-3-03835-182-5) on material science, targeting biomedical materials. Biomedical applications of materials as a form of micro to macro molecules provides an outstanding demonstration of the multi- and interdisciplinary arena of materials. As the expected audiences cover a wide interdisciplinary field, each peer-reviewed chapters written with detail background by a selected group of academic and clinical experts. This book entitled **"Materials for Biomedical Applications"** reflects the true inter-disciplinary nature of materials science, demonstrate the scientific background and interaction between the materials and bio-systems, biocompatible or biodegradable polymers, materials for diagnostic, and the development of devices and enabling technologies for therapeutic applications.



الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يونيورسيتي إسلام انتارابغسا ملسيا

KULLIYYAH OF PHARMACY

Date: March 28, 2015

Dr. Mohammad Abu Jafar Mazumder
Department of Chemistry,
King Fahd University of Petroleum and Minerals
Dhahran
KSA.

Sub: Invitation to give a research presentation to Kulliyyah of Pharmacy, IIUM, Kuantan, Malaysia.

Assalamualikum wrt wbt

Dear Dr. Mohammad Abu Jafar Mazumder,

It's a pleasure to write to you regarding the above matter. Further to our collaborative work on writing book chapter under your editorial ship we would like to continue the collaboration in more effective way. On that account we are keen to continue research work together with your research team. We understand that your university has the state of art facilities for the synthesis of bio material and under your able expert leadership it even become more lucrative for others to get the opportunity to become collaborator. From our side we can offer you to conduct bio logical study of your developed polymer to screen the bio compatibility and many more. As we are aware that the Kingdom has strict criteria for conducting biological research it would be very fruitful if we can collaborate to cover the synthesis and biological application to develop materials with bio compatibility. The target area of use of such materials will be in the field of pharmacy and medicine. More specifically it could have direct contribution for drug delivery, drug formulation, bio pharmaceuticals, preparation of different in-plant for human and many more.

As a starting of the collaboration between your research team with our faculty it would be helpful if you can arrange some time to visit our faculty and give us a detail account of your research to facilitate our researchers to design different project for the collaboration purposes. We have expert scientist and researchers working in the field of pharmacy and pharmaceutical sciences.

QUALITY SYSTEM
SIRIM
CERTIFIED TO MS ISO 9001:2000
Registration No. AR 3074

Garden of Knowledge and Virtue

Office Address: Kulliyyah of Pharmacy, IIUM Kuantan Campus, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang Darul Makmur
Tel: +609 571 6400 Fax: +609 571 6775 Website: www.iium.edu.my/pharmacy

الجامعة الإسلامية العالمية ماليزيا
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
يونيورسيتي إسلام انتارابغسا ملايسيا

KULLIYYAH OF PHARMACY

We look forward for your response to arrange some date during our third semester break which will start somewhere in June. Please do let us know about your availability and program so that we can arrange a program for your research presentation. Thank you and *wassalam.*

Yours Sincerely,

Assoc. Prof. Dr. A. B. M. Helal Uddin
Department of Pharmaceutical Chemistry
Kulliyyah of Pharmacy, IIUM, Kuantan,
Malaysia.

QUALITY SYSTEM
SIRIM

Garden of Knowledge and Virtue

Office Address: Kulliyyah of Pharmacy, IIUM Kuantan Campus, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang Darul Makmur
Tel: +609 571 6400 **Fax:** +609 571 6775 **Website:** www.iium.edu.my/pharmacy

King Fahd University of Petroleum & Minerals

جامعة الملك فهد للبترول و المعادن

Certificate

This is to certify that

Dr. Mohammad Abu Jafar Mazumder

attended the workshop entitled

"Instructional Objectives"

organized by the Teaching & Learning Center, Deanship of Academic Development

on November 12, 2014

Dr. Saeed M. Al-Amoudi

Dean, Academic Development

King Fahd University of Petroleum & Minerals
جامعة الملك فهد للبترول و المعادن

Certificate

This is to certify that

Dr. Mohammad Abu Jafar Mazumder

attended the workshop entitled

"Getting Started with Blackboard 9.1"

organized by the e-Learning Center, Deanship of Academic Development
on September 11, 2013

Dr. Saeed M. Al-Amoudi
Dean, Academic Development

Deanship of Academic Development

King Fahd University of Petroleum & Minerals
Information Technology Center

جامعة الملك فهد للبترول و المعادن
مركز تقنية المعلومات

Certificate of Attendance

This is to certify that

MOHAMMAD ABU JAFAR MAZUMDER

has attended a 2 hours workshop on

"MICROSOFT EXCHANGE AND LYNC" MESSAGING AND COLLABORATION PLATFORMS

September 11, 2012

Microsoft

Dr. Mansour Al-Dajani
Director, Information Technology Center

Global Knowledge

Certificate of Participation

presented to

Mohammad Jafar Mazumder

of

McMaster University

Effective Networking!
October 15th, 2010

MITACS Step

MITACS Step

Dr. Arvind Gupta
Scientific Director, MITACS

Donna Messer
ConnectUs Canada

MITACS Step gratefully acknowledges the support of the government of Ontario

Certificate of Participation

presented to

Mohammad Jafar Mazumder

Of

McMaster University

Foundations of Project Management I: A Team Based Approach
June 17th and 18th, 2010

MITACS Step

MITACS Step

Dr. Arvind Gupta
Scientific Director, MITACS

Maureen Donlevy
E.M. Sciences Ltd

MITACS Step gratefully acknowledges the support of the government of Ontario