

*Qatar University*  
*Gas Processing Center (GPC)*  
*College of Engineering*



**Dr. Mustafa Saleh Nasser**  
Assistant Professor

*Detailed cv*

**October, 2016**

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## PERSONAL DETAILS

**Name:** Mustafa Saleh Nasser  
**Date of birth:** May 22, 1977  
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**Languages:** Arabic/English  
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## A1. EDUCATION AND EMPLOYMENT INFORMATION

### EDUCATION

Year	Degree	Institute
1996 – 2001	BSc. in Chemical Engineering <b>Final year project:</b> Cadmium Adsorption Using West Tires with Proposed methods to enhance the Adsorption	Jordan University of Science and Technology (J.U.S.T) Irbid, Jordan
2001 – 2003	MSc in Chemical Engineering <b>Thesis Title:</b> Rheological Optimization of The Structured Gels Breakdown Caused By Shear Flow and Elongation Flow.	University of Twente, Enschede, The Netherlands
2004-2007	PhD. in Chemical Engineering <b>Thesis Title:</b> Characterisation of Flocculated Kaolinite Dispersions in Settling, Compression and Shear	University of Manchester (UMIST), Manchester, UK

### EMPLOYMENT

Year	Position	Institute
2007-2008	Postdoctoral Researcher	University of Manchester (UMIST), Manchester, UK
2008-2009	Assistant Professor	University of Nizwa (UoN), Sultanate Oman
2009-2012	Assistant Professor and <b>Head Department</b> of Chemical & Petrochemical Engineering	University of Nizwa (UoN), Sultanate Oman
2012-2014	Assistant Professor	King Fahd University of Petroleum and Minerals (KFUPM)
2014-Present	Assistant Professor	Qatar University (QU)

## A2. RESEARCH INTREST

My research areas are categorized in the following main areas:

- **Rheology of Complex fluids:** work here considers the characterisation of the properties of complex fluids such as colloidal dispersions, polymers, polyelectrolytes, surfactants bio-surfactants and emulsions.

*My current focus* is drilling fluids formulations for high pressure and high temperature applications, viscoelastic surfactants (VES) used in acid well stimulations and in the Enhanced oil recovery (EOR).

- **Colloidal and interfacial phenomena:** this considers the control of surface and interface forces and related phenomena to colloids (control of surface structure, size and density).
- **Waste water treatment:** work here considers method of treatments of colloidal fines /sludge through the flocculation, coagulation and flotation to achieve the optimal design in batch sedimentation, centrifugation, filtration, and micro-filtration and gravity thickeners.

*My current focus* is the treatment of the produced water from oil and gas production using different and hybrid methods such as developing selective emulsifiers, photocatalytic degradation, and adsorption and membrane separations.

## A3.TEACHING

I look forward towards sharing with students my passion and curiosity for learning, innovating, and engineering solutions to interesting problems. In general, my teaching philosophy is centered on three main objectives: conveying the big picture and its associated ramifications, providing real world projects that encapsulate the complexity of a problem, and actively listening to students to ensure their engagement in the material. One of the major courses I taught at KFUPM was the plant design course which is usually delivered by group of advisors. One of the outcomes was in 2012 when my students won the 2<sup>nd</sup> prize of SABIC Integrated Design Award. The competition is open for all Saudi Arabian Universities.

### A3.1. TEACHING AND STUDENT SUPERVISION

#### a) CREDIT COURSES

##### *i. Courses taught in UoN*

1. CHE 203 Principles Of Thermodynamics And Thermal Fluids (1 time).
2. CHE 207 Fluid Mechanics (6 times).
3. CHE 301 Principle Of Heat Transfer (3 times)
4. CHE 305 Mass Transfer (3 times)
5. CHE 306 Chemical Process Industries (1 time)
6. CHE 307 Fluid Mechanics Lab (4 times)
7. CHE 308 Engineering Economy (1 time)
8. CHE 402 Separation Processes II (3 times)

9. CHE 408 Petroleum Refinery and Petrochemicals (4 times)
10. CHE 500 Wastewater Treatment (2 times)
11. CHE 507 Final Year Research Project I (6 times)
12. CHE 508 Final Year Research Project II (6 times)

*ii. Courses taught in KFUPM*

1. CHE 202 Principles of Chemical Engineering II (3 times).
2. CHE 300 Transport Phenomena II (2 times)
3. CHE 309 Chemical Engineering lab 1 (1 time)
4. CHE 495 Integrated Design Course (4 times).
5. CHE 705 Unit Operation in Wastewater Treatment (**Post-Graduate Level**) (2 times)
6. Special Topic: Colloids and interfaces (**Post-Graduate Level**) (1 time)

*iii. Courses taught in QU*

1. GENG 300-Numerical Methods (1 time).
2. MECH 585- Advanced Heat Transfer (**Post-Graduate Level**) ( This semester)

**b) NON-CREDIT COURSES AND WORKSHOPS**

I voluntarily have designed Hysys and Excel Workshops which was delivered based voluntary sessions and chemical engineering student register optionally.

Term	Workshop	Institute
Spring 2009	Excel Workshop for Chem Eng. Students	UoN
Fall 2010	Excel Workshop for Chem Eng. Students	UoN
Spring 2010	Excel Workshop for Chem Eng. Students	UoN
Fall 2011	Enhancing Students Soft Skills Workshop	UoN
Fall 2013	Hysys Workshop for Chem Eng. Students	KFUPM

**c) OTHER TEACHING ACTIVITIES**

- o I developed a postgraduate course material on 'Colloids and interfaces from Fundamentals to Practical Applications' (at KFUPM).
- o I developed a postgraduate level course material on 'Unit Operation in Wastewater Treatments' (at KFUPM).
- o I developed a detailed manual 'mass and energy balance steps' and 'heat exchanger design' for plant design course (at KFUPM).
- o Supervised or Co-supervised many coop students who spent 7 months training in the industry

as well as summer training students (at KFUPM and UoN).

- Supervising Final Year Project(s)/ supervising students both in the day-to-day running of the project and its overall planning, which has yielded valuable data (at UoN, KFUPM).
- Enhancing Students Soft Skills/ I have arranged workshops to senior students on 'soft skills' including presentation techniques, writing CV and group discussions (at UoN).
- Excel spreadsheet Workshop for Chemical Engineering Students (at UoN)
- Hysys Workshop for Chemical Engineering Students (at KFUPM)
- Evaluator for Design Projects/ evaluating final year project is group work which requires a lot of interaction with other members of academics from different fields (at KFUPM).

#### **d) MASTER THESIS SUPERVISION**

I Supervised the following students:

1. Musaab Ibrahim Magzoub, MSc Student, thesis title ' *Development of Stable Drilling Fluid Formulations Using Local Bentonite*'. (**Supervisor**)
2. He Saeed Deen Ma, MSc Student, thesis title ' *Destabilization of Oil-Water Emulsions in Oilfield Produced Water to Enhance Separation in Dissolved Air Flotation*'. (**Supervisor**)
3. Qusay Yousef, MSc student, thesis title ' *Carbon Dioxide Capture from Natural Gas Using Regenerable Kaolin Based Sorbents*'. (**Co-Supervisor**)

### **A3.2. CURRICULUM DEVELOPMENT AND TEACHING MANAGEMENT**

#### **a) CURRICULUM DEVELOPMENT AND EVALUATION**

- Development of chemical engineering program considering sustainable developing role and to satisfy ABET Program Outcomes and Course Objectives (I have one publication in this regard) (Act as chairman of the committee, UoN).
- Initiating and developing curriculum for major Petrochemical program (Act as chairman of the committee, UoN).
- Integration of up-to-date knowledge and developments in the relevant field of teaching, such as using electronic materials in blackboard (webCT).
- Developing a policy of Setting Examination Papers and measuring the course outcome (member in the committee, UoN)
- Implementing a design element and using software (Excel, Polymath and Hysys) into all second and third year KFUPM chemical engineering courses (member in the committee, KFUPM).
- Continuous assessment of the courses outcomes and program outcomes and evaluate their impact on the quality in teaching & learning process (member in teaching and quality committee, UoN).

#### **b) MANAGEMENT OF INNOVATIVE APPROACHES SUCH AS PROBLEM-BASED LEARNING**

My aim is to continue investigating and developing teaching methods so that I can improve my teaching and students learning. I attempt to accomplish this through:

- I have adopted Neuro-Linguistic Programming (NLP) for my teaching to improve my presentation skills, for best influencing and convincing my students. In order to know how to inspire my students and let them pay attention to every word in my presentations, I have made many readings in the area and applied the techniques I learned to my communications with students. I have noticed an improved interaction with my students both in the classroom and outside the classroom.
- I have adopted project based learning model in teaching was adopted including project presentation and effective open ended and critical thinking type problems are used. In this approach we transfer students from "spoon feeding" status into "independent status". I applied project based learning in all courses I taught. The activity usually divided into 4 elements; (1) an extended time frame; (2) collaboration between team members; (3) inquiry, investigation, and research; and finally, (4) presenting and discussing the results.
- Involving the students in the process of evaluation and marking, also involve the students in having the opportunity in providing a feedback to their and other teams work.
- Attending seminars and workshops on teaching and learning organized at the UoN, KFUPM. Focusing on lifelong learning skills by identifying new skills and apply them to solve problems in logic and effectively communicate the solution. I applied this in the Plant Design and Research Projects. Here students will be given the problem and they will identify the objectives and procedure for the solution.

#### **a) ADVISING AND COUNSELING STUDENTS**

Advising many students at KFUPM and UoN. I have clear plan, document and monitor my advisee.

- Planning: Excel Sheet is prepared for all advisees that show their grads and status. I called students to meet me and discuss the plan for critical cases. Different alternative plans are discussed with advisee in order for them to progress better in their study.
- Documentation: Excel sheet that shows all courses completed and future courses for all students.
- Monitoring: Plan for New students are started from the 1<sup>st</sup> semester. If in case a student is not progressing in the study, I called them for meeting to discuss the case.
- Availability to senior students: I do always support senior students whom are searching for jobs or need recommendation letters, etc.

#### **A4. SCHOLARLY ACHIEVEMENTS**

My goals in research and development is to generate new knowledge in the areas of my expertise and apply it to solve real world problems through which achievements can be gained in a national and international levels.

#### **A4.1 PATENTS**

1. Magzoub, M. I., **Nasser, M.S.**, Hussein, I.A., Mahmoud, M., Sultan, A. (2015) 'Thermochemical Upgrading of Ca-Bentonite for oil and gas drilling applications, USA Patent office, filled, **441166US**

#### **A4.2 REFEREED JOURNALS**

1. **Nasser, M.S.**, S.A. Onaizi, I.A. Hussein, M.A. Saad, M.J. Al-Marri, A. Benamor. (2016) 'Intercalation of ionic liquids into bentonite: Swelling and rheological behaviors' *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **507**, 141-151.
2. Benamor A., Al-Marri M.J., Khraisheh M., **Nasser, M.S.**, Tontiwachwuthikul P. (2016) 'Reaction kinetics of carbon dioxide in aqueous blends of N-methyldiethanolamine and glycine using the stopped flow technique' *Journal of Natural Gas Science and Engineering*, **33**,186-95.
3. Onaizi, S.A., **Nasser, M. S.**, Al Lagtaha, Nasir M. A. (2016) 'Self-assembly of a Surfactin Nanolayer at Solid-Liquid and Air-Liquid Interfaces' *European Biophysics Journal*, **45**, 331-339.
4. **Nasser, M. S.**, Al-Marri, M. J, Abdelbaki Benamor, Khraisheh, M., Onaizi, S.A. (2016) 'Flocculation and Viscoelastic Behaviour of Industrial Papermaking Suspensions' *Korean Journal of Chemical engineering*, **33**, 448-455.
5. Basim Abu-Jdayil, **Nasser, M. S.**, Mamdouh Ghannam, (2016) 'The Modification of Rheological Properties of Bentonite-Water Dispersions with Cationic and Anionic Surfactants' *International Journal of Chemical Engineering and Applications*, **7**, 75-80.
6. Ihsanullah, Aamir Abbas, Adnan M. Al-Amer, Tahar Laoui, Mohamed Almarri, **Nasser, M.S.**, Majeda Khraisheh, Muataz Ali Atieh (2016) 'Heavy metal removal from aqueous solution by advanced carbon nanotubes: critical review of adsorption applications' *Separation and Purification Technology*, **157**, 141-161.
7. Mirghani, M., Al-Mubaiyedh, U. A., **Nasser, M.S.**, Shawabkeh, R., (2015) 'Experimental study and modeling of photocatalytic reduction of  $Pb^{2+}$  by  $WO_3/TiO_2$  nanoparticles' *Separation and Purification Technology*, **141**, 285–293.
8. Ihsanullah, Fahad Abdulaziz Al-Khaldi, Basil Abusharkh, Mazen Khaled, Muataz Ali Atieh, **Nasser, M.S.**, Tahar laoui, Tawfik A. Saleh, Shilpi Agarwal, Inderjeet Tyagi, Vinod Kumar Gupta, (2015) 'Adsorptive removal of cadmium(II) ions from liquid phase using acid modified carbon-based adsorbents' *Journal of Molecular Liquids*, **204**, 255–263.
9. Almarouf, H.S., **Nasser, M. S.**, Al-Marri, M. J, Onaizi, S.A., Khraisheh, M., (2015) 'Demulsification of Stable Emulsions From Produced Water Using A Phase Separator



With Inclined Parallel Arc Coalescing Plates' *Journal of Petroleum Science and Engineering*, **135**, 16-21.

10. Adesina , A., **Nasser, M.S.** , Hussein, I. A. (2015) ' Comparative Analysis of the Effect of Organoclay, Boron Nitride and Fluoropolymer on the Rheology and Instabilities in the Extrusion of High Density Polyethylene' *International Journal of Polymer Science*, vol. **2015**, doi:10.1155/2015/190537.
11. Adesina , A., **Nasser, M.S.** , Hussein, I. A. (2015) 'Rheology of organoclay assisted extrusion of HDPE using Particle Image Velocimetry' *Chemical Engineering Research and Design* , **100**, 113–125.
12. Onaizi, S.A., **Nasser, M. S.**, Al Lagtaha, Nasir M. A. (2015) 'Adsorption of an Anionic Surfactant at Air-Liquid and Different Solid-Liquid Interfaces from Solutions Containing High Counter-ion Concentration' *Colloid and Polymer Science*, , **293**, 2891–2899.
13. W. Al-Sadat, **M. S. Nasser**, F. Chang, H.A. Nasr-El-Din, I.A. Hussein (2014) Laboratory Evaluation of the Effects of Additives and pH on the Thermorheological Behavior of a Viscoelastic Zwitterionic Surfactant Used in Acid Stimulation, *Journal of Petroleum Science and Engineering*,**122**, 458–467.
14. W. Al-Sadat, **M. S. Nasser**, F. Chang, H.A. Nasr-El-Din, I.A. Hussein (2014) Rheology of a Viscoelastic Zwitterionic Surfactant Used in Acid Stimulation: Effects of Surfactant and Electrolyte Concentration, *Journal of Petroleum Science and Engineering*, **124**, 341–349.
15. **Nasser, M. S.**, (2014) 'Characterization of floc size and effective floc density of Industrial Papermaking Suspensions' *Separation and Purification Technology*, **122** ,495–505.
16. Onaizi, S.A., **Nasser, M. S.**, and Twaiq, F.A., (2014) 'Lysozyme binding to tethered bilayer lipid membranes prepared by rapid solvent exchange and vesicle fusion methods' *European Biophysics Journal*, **43**, Issue 4-5, 191-198.
17. Twaiq, F.A., **Nasser, M. S.**, Onaizi, S.A., (2014) 'Langmuir–Hinshelwood Kinetic Study For Palm Oil Catalytic Cracking Over AL-MCM-41 methods' *Reaction Kinetics, Mechanisms And Catalysis*, **112**, 477–488.
18. Onaizi, S.A., **Nasser, M. S.**, and Twaiq, F.A., (2014) 'Adsorption and Thermodynamics of Biosurfactant, Surfactin, Monolayers at the Air-Buffered Liquid Interface' *Colloid and Polymer Science*, **292**, 1649–1656.
19. Twaiq, F.A., **Nasser, M. S.**, Onaizi, S.A., (2014) 'Effect of the Degree of Template Removal from Mesoporous Materials on the Adsorption Behavior of Heavy Oil from Aqueous Solutions' *Frontiers of Chemical Science and Engineering*, **8**(4), 488–497.
20. Al-Dawery, S.K., **Nasser, M. S.**, (2013) 'Conditioning Process of Fresh Activated Sludge' *World Academy of Science, Engineering and Technology* **7**, 556-560.

21. **Nasser, M. S.**, Twaiq, F.A. and Onaizi, S.A., (2013) 'Effect of Polyelectrolytes on the Degree of Flocculation of Papermaking Suspensions' *Separation and Purification Technology*, **103**, 43–52.
22. Twaiq, F.A., **Nasser, M. S.**, (2013) 'Kinetics of Palm Oil Cracking in Batch Reactor' *World Academy of Science, Engineering and Technology* **7**, 657-661.
23. Abu-Jdayil, B., **Nasser, M. S.**, Ghannam, M., (2013) 'Structure Breakdown of Stirred Yoghurt in a Circular Pipe as Affected by Casein and Fat Content' *Food Science and Technology Research*, **19**, Issue 2, 277-286.
24. **Nasser, M. S.**, Twaiq, F.A., and Onaizi, S.A., (2012) 'An Experimental Study of the relationship between the properties of cohesive beds and eroded flocs', *Minerals Engineering*, **30**, 67-74.
25. Twaiq, F.A., **Nasser, M. S.**, Alhajri, S., and Alhasani, M., (2012) 'Adsorption Kinetics of Alcohols over MCM-41 Materials' *International Journal of Engineering and Applied Sciences*, **6**, 308-315.
26. Onaizi, S.A., **Nasser, M. S.**, and Twaiq, F.A., (2012) 'Micellization and Interfacial Behavior of a Synthetic Surfactant-Biosurfactant Mixture' *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **415**, 388– 393.
27. **Nasser, M. S.**, and Twaiq, F.A. (2011)' An experimental study of the relationship between settling flocs and eroded flocs of kaolinite in aqueous media', *Chemical Engineering Research and Design*, **89**, 768-776.
28. Kaewkannetra, P., **Nasser, M. S.**, Twaiq, F.A., (2010) 'Settling behavior of glycerol during biodiesel production' *World Applied Sciences Journal* **9** (12), 1408-1413.
29. **Nasser, M. S.**, and James, A. E., (2009) 'The effect of electrolyte concentration and pH on the flocculation and rheological behaviour of kaolinite suspensions,' *Journal of Engineering Science and Technology*, **4**,430-446.
30. **Nasser, M. S.**, and James, A. E., (2008) 'Degree of flocculation and viscoelastic behaviour of kaolinite-sodium chloride dispersions,' *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **315**, 165-175.
31. **Nasser, M. S.**, and James, A. E., (2008) 'Compressive and shear properties of flocculated kaolinite-polyacrylamide suspensions,' *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **317**, 211-221.
32. **Nasser, M. S.**, and James, A. E., (2007) 'The effect of polyacrylamide charge density and molecular weight on the flocculation and sedimentation behaviour of kaolinite suspensions,' *Separation and Purification Technology*, **52**, 241-252.

33. **Nasser, M. S.**, and James, A. E., (2007) 'Effect of polyacrylamide polymers on floc size and rheological behaviour of kaolinite suspensions,' *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **301**, 311-322.
34. **Nasser, M. S.**, and James, A. E., (2007) 'Numerical simulation of the continuous thickening of flocculated kaolinite suspensions,' *International Journal of Mineral*, **84**,144-156.
35. **Nasser, M. S.**, and James, A. E., (2006) 'Settling and sediment bed behaviour of kaolinite in aqueous media,' *Separation and Purification Technology*, **51**, 10-17.

### **A4.3 CONFERENCES**

1. **Nasser, M. S.**, M.J. Al-Marri, M. Khraisheh, M.A. Saleh (2015) 'Rheological Characterization of  $\text{Na}_2\text{CO}_3$  Activated Calcium Bentonite for OIL and Gas Drilling Applications' AIChE November 8-13, 2015, Salt City, UT, United States.
2. He MA, Sultan, A, **Nasser, M. S.** (2015) 'Destabilization and Treatment of Produced Oil-Water Emulsions from EOR Application Using Polyacrylamides' AIChE November 8-13, 2015, Salt City, UT, United States.
3. He MA, Sultan, A, **Nasser, M. S.** (2015) 'Destabilization and Treatment of Produced Water-Oil Emulsions Using Anionic Polyacrylamide' AIChE November 8-13, 2015, Salt City, UT, United States.
1. He MA, Sultan, A, **Nasser, M. S.** (2015) 'Destabilization and Treatment of Produced Water-Oil Emulsions Using Different Charge Density of Anionic Polyacrylamide and Electrolyte of Aluminum and Ferrous Sulphate' AIChE November 8-13, 2015, Salt City, UT, United States.
2. Abu-Jdayil, B., Ghannam, M., **Nasser, M. S.**, (2015) 'The Modification of Rheological Properties of Bentonite-Water Dispersions with different Surfactants' 4<sup>th</sup> International Conference on Chemical and Process Engineering (ICCPE 2015) June 15-16, 2015 Madrid, Spain.
3. **Nasser, M. S.**, (2013) 'Effect of polyacrylamide polymers on floc size and rheological behavior of papermaking suspensions' AIChE November 3-8, 2013, San Francisco, CA, United States.
4. Twaiq, F.A., and **Nasser, M. S.**, (2012). Performance of Mesoporous Organosilicates on the Adsorption of Heavy Oil from Produced Water. Proceeding of the 2<sup>nd</sup> International Conference on Fundamental and Applied Sciences (ICFAS2012), 7-9 June, Kuala

lumpur, Malaysia.

5. Al Ryiami, S., **Nasser, M. S.**, and Twaiq. F.A., (2012) 'Effect of Gel Composition On The Characteristics Of Mesoporous Silica Materials' Proceeding of the 2<sup>nd</sup> National Symposium on Engi. Final Year Projects, 24-25 May, 2011, University of Nizwa, Sultanate of Oman.
6. Al Zadjali, A., **Nasser, M. S.**, (2012) 'The use of Polyacrylamide in the sewage waste treatment' Proceeding of the 2<sup>nd</sup> National Symposium on Engineering Final Year Projects, 24-25 May, 2011, University of Nizwa, Sultanate of Oman.
7. Twaiq, F.A., and **Nasser, M. S.** , (2011)' Adsorption Kinetics of Alcohols over Mesoporous Silicious Material' Proceeding of the CUTSE International Conference, 7-9 November, 2011, Sarawak, Malaysia.
8. Al rashdy, S., and **Nasser, M. S.** , (2011) 'Settling Behavior Of Flocculated Kaolin Suspension' Proceeding of the 1<sup>st</sup> National Symposium on Engineering Final Year Projects, 24-25 May, 2011, University of Nizwa, Sultanate of Oman.
9. Sultan, H., and **Nasser, M. S.** , (2011) 'Degree Of Flocculation Of Polyacrylamide Papermaking Suspension' Proceeding of the 1<sup>st</sup> National Symposium on Engineering Final Year Projects, 24-25 May, 2011, University of Nizwa, Sultanate of Oman.
10. Thanoon, W.A., and **Nasser, M. S.**, (2010) 'Design of Engineering Curriculum Considering Sustainable Development Role' Proceeding of the International Conference on Engineering Education ICEE-2010, 18-22 July, 2010 Gliwice, Poland.
11. **Nasser, M. S.**, (2009) 'Numerical simulation of the continuous thickening of flocculated waste water suspensions' Proceeding of the Ninth Gulf Water Conference, 22-25 March, 2010, Sultanate of Oman.
12. **Nasser, M. S.** , (2009) 'Degree of flocculation and rheological behavior of waste water colloidal suspensions' Proceeding of the Ninth Gulf Water Conference, 22-25 March, 2010, Sultanate of Oman.
13. **Nasser, M. S.**, and James, A. E., (2007) 'Compressive and shear rheology of clay suspensions' Proceeding of the British Rheology Society conference (symposium of the non-Newtonian club), Unilever R & D, Port sun light, 8<sup>th</sup> November, Liverpool, UK.
14. **Nasser, M. S.**, and James, A. E., (2007) 'The effect of polyacrylamide on the settling behaviour of kaolinite dispersions,' Proceeding of the European Congress of Chemical Engineering- 6, 16-21 September, Copenhagen, Denmark.

#### **A4.5 RESEARCH GRANTS**

- Screening Of Cost Effective Polyelectrolyte for Demulsification of Oil Emulsions in Produced Water. Founded by QU, **QUSG-CENG-GPC-14\15-5**, 40,000 QR (1 USD= 3.65 QR). (Lead-PI)(2014-2015)
- Destabilization of Oil-Water Emulsions in EOR Produced water. Founded by KFUPM, **227,000 SR (1 USD= 3.7 SR)**. (Lead-PI)(2013-2015)
- Removal of Heavy Metals using Nanocomposites Founded by KFUPM, **328,000 SR (1 USD= 3.7 SR)**. Co-Investigator (CI)(2013-2015)
- The Impact of Sludge Rheology on Design and Operation of Waste Water Treatment Plant. Founded by Oman Research Council, **83,000 RO (RO 1 = USD 2.6)** (Lead-PI) (2012-2014)
- Bioremediation of Aromatic Hydrocarbon Pollutants in Wastewater using Sustainable and Environmentally-Friendly Enzymatic Technology, Founded by Oman Research Council, **83,000 RO (RO 1 = USD 2.6)** )Co-Investigator (CI)( 2012-2014).
- Flocculation and Rheology of papermaking suspension. Founded by University of Nizwa, **10,000 RO (RO 1 = USD 2.6)**.(Lead-PI)(2011-2012).
- Synthesis of Mesoporous silica fibers (MSF) as adsorbent applied industrial waste water treatment. Founded by Oman Research Council, **50,000 RO (RO 1 = USD 2.6)** (Co-Lead PI)(2009-2011).

## A5. SERVICE

My scope of contribution to college goals in teaching, research and development is either directly or through the divisions/schools plans.

### A5.1 UNIVERSITY ADMINISTRATION AND COMMITTEES

I look always forward to having the opportunity to fully contributing to the life of the college/university. I have been involved with the following administrative duties and committees in UoN, KFUPM and QU.

#### *i. Services at UoN*

1. Head Department for Chemical Engineering (2009-2012)
2. Member of University research standing committee (2009-2012)
3. Member of Engineering Executive Board (2008-2012)
4. Chairman of teaching and quality standing committee (2008-2012)
5. Member of University appeal committee (2010-2012)
6. College of Engineering Annual Report Committee, Ad Hoc (2010)
7. Member of ABET Ad hoc committee (2013)

#### *ii. Services at KFUPM*

1. Member of Curriculum committee (2013-2014)

2. Member of Text Book committee (2013-2014).
3. Member of the Examination committee of Master thesis for 'Oil-and gas surface facilities' Program, Ad Hoc (2013)

**iii. Services at QU**

1. Member of GPC strategic plan, Ad Hoc (2014-2015)
2. Chairman, GPC Faculty Recruitment Committee, (2014-present)
3. Member of Organizing committee , 4<sup>th</sup> international gas processing symposium, Ad Hoc (2014)
4. Member of Organizing committee , Gasna competition, Ad Hoc (2015)
5. Internal examiner for Master thesis (2015)

## **A5.2 PROFESSIONAL MEMBERSHIP**

1. Member of American Institute for Chemical Engineering (AIChE), USA
2. I hold License as Process Designer Registered in the Royal Institution of Engineers in the Netherlands (KIVI NIRIA)
3. Member of British Society of Rheology, UK.
4. Member of Society of Chemical Industry (SCI), UK.
5. Member of Omani innovation center (IIC).
6. Act as a Reviewer to the: Journal of Separation and Purification Technology, Colloid and surface Sciences A, Desalination , American Society of chemistry, Chemical Engineering Research and Design, Food Engineering and Journal of Engineering Science and Technology.

## **A6. AWARDS AND RECOGNITION**

1. Two Years M.Sc. Scholarships from the Department of Chemical Engineering, University of Twente, the Netherlands (2001-2003).
2. Ph.D. Scholarship from the Engineering and Physical Sciences Research Council (EPSRC), UK (2004-2007).
3. Merit certificate and Vice Chancellor Best Research Student of University of Manchester, 2005.
4. Messel Award from the Society of Chemical Industry (SCI) (2007)
5. Alumni Award from the University of Manchester (2007)