Curriculum Vitae

Abdelbaki Benamor

Position: Associate Professor (Research Track)
Gas Processing Center
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Education

2003	Ph.D.	Chemical Engineering, University of Malaya, Malaysia. Field: Chemical Reaction Engineering
1998	M. Eng. Sc	Chemical Engineering, University of Malaya, Malaysia. Field: Chemical Reaction Engineering
B. Eng.		Chemical Engineering, University of Bejaia, Algeria Specialization: Chemical Process Engineering

Employment History

06/10/2016 to Date	: Associate Professor (Research Track), Qatar University, Qatar
20/10/ 201106/10/2016	: Assistant Professor (Research Track), Qatar University, Qatar
2009 to 2011	: Assistant Professor, Sohar University, Sultanate of Oman
2005 to 2009	: Assistant Professor, The University of Nottingham- Malaysia Campus, Malaysia
2002 to 2005	: Lecturer, University of Malaya, Malaysia
1996 to 2002	: Research Assistant, University of Malaya, Malaysia

Research Interests

Broadly, my research interests span over two fields; carbon capture and water desalination:

Carbon Dioxide Capture

The issue of carbon dioxide emission is a global problem causing serious concern and a major contributory factor to global warming. Qatar as a major producer of natural gas has the highest per capita emission rate for carbon dioxide globally. This has dire consequences for the environment. As a result of this, at the Gas Processing Center (GPC) of Qatar University I am engaged in research projects aimed at evolving methods for carbon capture mainly from industrial and natural gas streams. With this respect I am working on developing different technologies for carbon dioxide capture, focusing mainly on liquid solvent and solid sorbent technologies and catalytic conversion technologies from bench scale to pilot scale levels.

Water Treatment and Desalination

Desalination technologies generally involve thermal separation or membrane based separation. Reverse osmosis (RO) is by far the most widespread type of membrane based desalination process because it is capable of rejecting almost all colloidal and dissolved substances in aqueous solution. However, the major obstacle for RO membrane application in desalination is membrane fouling which dramatically reduces throughput and performance. In order to reduce membrane fouling, nanofiltration (NF) is recently applied in the treatment of feed water to RO desalination process. Similar to RO membranes, NF membranes are

potent in the separation of inorganic salts and small organic molecules. Key distinguishing characteristics of NF membranes are low rejection of monovalent ions, high rejection of divalent ions and higher flux compared to RO membranes. Due to this reason, NF membranes are applicable in fouling control of RO membranes by reducing concentration of scale forming components, Various modification strategies such as blending, copolymerization and surface modification have been used. Among these strategies, polymer blending and nanoparticles incorporation remain as prominent approaches in producing new types of membranes with a wide diversity of properties intermediate between hydrophilic membranes and hydrophobic membranes. For instance, polymer blending method improves hydrophilicity of polysulfone membranes by blending charged polymer but it remains excellent oxidative, thermal and dimensional stability of polysulfone membranes. Hydrophilic sulfonated poly (ether ether ketone) (SPEEK) is one of the common charged polymer of choice. In my research, newly developed low fouling membranes are characterized and tested in scaling, NOM fouling and biofouling. A strong emphasis is on characterization of the membranes using Atomic Force Microscope (AFM) which enable the following parameters to be investigated (i) pore size distribution and surface morphology, (ii) surface electrical properties, and (iii) surface adhesion- membrane fouling. Membrane development is being done with the incorporation of surface modifying molecules and nanoparticles for improvement in salt rejections, flux and fouling propensity.

Publication

Book Chapters

1. Abdelbaki Benamor, Mustafa Nasser, and Mohammed Jaber Al-Marri, Gas Processing Technology-Treatment and Utilization, ENCYCLOPEDIA OF SUSTAINABLE TECHNOLOGIES, in press, Elsevier 2017.
2. Muneer M. Ba-Abbad, Mohd S. Takriff, Abdul Amir H. Kadhum, Abu Bakar Mohamad, Abdelbaki Benamor and Abdul Wahab Mohammad. Design and Experimental Investigation of ZnO Nanoparticles Synthesis via Sol-Gel Technique for Waste Water Treatment under Solar Energy.CHAPTER-6. Smart Materials for Energy Storage and Environmental Application, Chapter: 6, Publisher: LAP LAMBERT Academic Publishing, Editors: M. Shaheer Akhtar, Hyung-Shik, Sadia Ameen, pp.223-249

Refereed Journals

1. Chikezie Nwaoha, Raphael Idem, Teeradet Supap, Chintana Saiwan, Paitoon Tontiwachwuthikul, Wichitpan Rongwong, Mohammed Jaber Al-Marri and Abdelbaki Benamor., Heat duty, heat of absorption, sensible heat and heat of vaporization of 2–Amino–2–Methyl–1–Propanol (AMP), Piperazine (PZ) and Monoethanolamine (MEA) tri–solvent blend for carbon dioxide (CO2) Capture. Chemical Engineering Science xxx (2017) xxx–xxx
2. Muneer M. Ba-Abbad, Mohd S. Takriff, Abdelbaki Benamor, Ebrahim Mahmoudi and Abdul Wahab Mohammad, Arabic gum as green agent for ZnO nanoparticles synthesis: properties, mechanism and antibacterial activity. J Mater Sci: Mater Electron, DOI 10.1007/s10854-017-7023-2
3. Muneer M. Ba-Abbad, Abdul Wahab Mohammad, Mohd S. Takriff, Rosiah Rohani, Ebrahim Mahmoudi, Khalefa A. Faneer and Abdelbaki Benamor. Synthesis of Iron Oxide Nanoparticles to Enhance Polysulfone Ultrafiltration Membrane performance for Salt Rejection. CHEMICAL ENGINEERING TRANSACTIONS, VOL. 56, 1699- 1704., 2017

4. Chikezie Nwaoha, Teeradet Supap, Raphael Idem, Chintana Saiwan, Paitoon Tontiwachwuthikul, Mohammed J. AL-Marri and Abdelbaki Benamor. Advancement and new perspectives of using formulated reactive amine blends for post-combustion carbon dioxide (CO2) capture technologies. Petroleum xxx (2016), 1-27.
5. Alaa Hawari, Mazen Elamin, Abdelbaki Benamor, Shadi Hasan, Mohamed Arselene, Maria Electorowicz., A Fuzzy Logic-Based Model to Predict the Impact of Flow Rate and Turbidity on the Performance of Multimedia Filters. Journal of Environmental Engineering accepted 2017.
6. Ang, W. L., D. Nordin, et al. (2017). "Effect of membrane performance including fouling on cost optimization in brackish water desalination process." Chemical Engineering Research and Design 117: 401-413.
7. Ba-Abbad, M. M., M. S. Takriff, et al. (2017). "Size and shape controlled of α-Fe2O3 nanoparticles prepared via sol–gel technique and their photocatalytic activity." Journal of Sol-Gel Science and Technology 81(3): 880-893.
8. Ba-Abbad, M. M., M. S. Takriff, et al. (2017). "Solar photocatalytic degradation of 2-chlorophenol with ZnO nanoparticles: optimisation with D-optimal design and study of intermediate mechanisms." Environmental Science and Pollution Research 24(3): 2804-2819.
9. Okonkwo, P. C., R. A. Shakoor, et al. (2017). "Corrosion behavior of API X100 steel material in a hydrogen sulfide environment." Metals 7(4).
10. Shaikh, S. M. R., M. S. Nasser, et al. (2017). "Investigation of the effect of polyelectrolyte structure and type on the electrokinetics and flocculation behavior of bentonite dispersions." Chemical Engineering Journal 311: 265-276.
11. Chung, Y. T., E. Mahmoudi, et al. (2017). "Development of polysulfone-nanohybrid membranes using ZnO-GO composite for enhanced antifouling and antibacterial control." Desalination 402: 123-132.
12. Khalid, A., A. Ibrahim, et al. (2017). "Fabrication of polysulfone nanocomposite membranes with silver-doped carbon nanotubes and their antifouling performance." Journal of Applied Polymer Science 134(15).
13. Chung, Y. T., M. M. Ba-Abbad, et al. (2016). "Functionalization of zinc oxide (ZnO) nanoparticles and its effects on polysulfone-ZnO membranes." Desalination and Water Treatment 57(17): 7801-7811.
14. Nasser, M. S., M. J. Al-Marri, et al. (2016). "Flocculation and viscoelastic behavior of industrial papermaking suspensions." Korean Journal of Chemical Engineering 33(2): 448-455.
15. Nasser, M. S., S. A. Onaizi, et al. (2016). "Intercalation of ionic liquids into bentonite: Swelling and rheological behaviors." Colloids and Surfaces A: Physicochemical and Engineering Aspects 507: 141-151.
16. Nwaoha, C., R. Idem, et al. (2016). "Heat duty, heat of absorption, sensible heat and heat of vaporization of 2-Amino-2-Methyl-1-Propanol (AMP), Piperazine (PZ) and Monoethanolamine (MEA) tri-solvent blend for carbon dioxide (CO2) capture." Chemical Engineering Science
17. Nwaoha, C., C. Saiwan, et al. (2016). "Carbon dioxide (CO2) capture performance of aqueous tri-solvent blends containing 2-amino-2-methyl-1-propanol (AMP) and methyldiethanolamine (MDEA) promoted by diethylenetriamine (DETA)." International Journal of Greenhouse Gas Control 53: 292-304.
18. Nwaoha, C., C. Saiwan, et al. (2016). "Carbon dioxide (CO2) capture: Absorption-desorption capabilities of 2-amino-2-methyl-1-propanol (AMP), piperazine (PZ) and monoethanolamine (MEA) tri-solvent blends." Journal of Natural Gas Science and Engineering 33: 742-750.
19. Ba-Abbad, M. M., M. S. Takriff, et al. (2016). "Synthesis and characterisation of Co2+-incorporated ZnO nanoparticles prepared through a sol-gel method." Advanced Powder Technology 27(6): 2439-2447

20. Benamor, A., M. J. Al-Marri, et al. (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: 186-195.
21. Singto, S., T. Supap, et al. (2016). "Synthesis of new amines for enhanced carbon dioxide (CO2) capture performance: The effect of chemical structure on equilibrium solubility, cyclic capacity, kinetics of absorption and regeneration, and heats of absorption and regeneration." Separation and purification technology 167: 97-107.
22. Zhong, N., H. Liu, et al. (2016). "Reaction Kinetics of Carbon Dioxide (CO2) with Diethylenetriamine and 1-Amino-2-propanol in Nonaqueous Solvents Using Stopped-Flow Technique." Industrial and Engineering Chemistry Research 55(27): 7307-7317.
23. Ang, W. L., A. W. Mohammad, et al. (2016). "Chitosan as natural coagulant in hybrid coagulation-nanofiltration membrane process for water treatment." Journal of Environmental Chemical Engineering 4(4): 4857-4862.
24. Ang, W. L., A. W. Mohammad, et al. (2016). "Hybrid coagulation-NF membrane processes for brackish water treatment: Effect of pH and salt/calcium concentration." Desalination 390: 25-32.
25. Ang, W. L., A. W. Mohammad, et al. (2016). "Hybrid coagulation–NF membrane process for brackish water treatment: Effect of antiscalant on water characteristics and membrane fouling." Desalination **393**: 144-150.
26. Benamor, A., M. J. Al-Marri, et al. (2015). Kinetics of CO_2 reaction with solutions of n-methyl-diethanolamine mixed with selected amino acids using stopped flow technique. Engineering Sciences and Fundamentals 2015 - Core Programming Area at the 2015 AIChE Annual Meeting.
27. Ying Tao Chung, Muneer M. Ba-Abbad, AbdulWahab Mohammad, Nur Hanis Hayati Hairom, Abdelbaki Benamor., Synthesis of minimal-size ZnO nanoparticles through sol–gel method: Taguchi design optimization, Materials and Design (2015), 87, 780–787
28. Al-Marri, M. J., W. Rongwong, et al. (2015). Reaction kinetics of some important alkanolamines with carbon dioxide in aqueous solutions using stopped flow technique. Engineering Sciences and Fundamentals 2015 - Core Programming Area at the 2015 AIChE Annual Meeting.
29. W. L. Ang., A.W. Mohammad., Y.H Teow., A. Benamor, N. Hilal., Hybrid Chitosan/FeCl3 Coagulation-Membrane Processes: Performance Evaluation and Membrane Fouling Study in Removing Natural Organic Matter, Separation and Purification Technology (2015), 152, 23–31
30. Muneer M. Ba-Abbad, Pui Vun Chai, Mohd S. Takriff, Abdelbaki Benamor, Abdul Wahab Mohammad, Optimization of Nickel Oxide Nanoparticles Synthesis through the Sol Gel Method using Box-Behnken design, Materials and Design. 86, (2015), 948–956
31. Abdelbaki Benamor, Mohammed Jaber Al-Marri and Alaa Hawari, Experimental determination of carbamate formation and amine protonation constants in 3-Amino-1-Propanol-CO2-H2O system and their temperature dependency, International Journal of Greenhouse Gas Control (2015), 37, 237–242
32. Zhiwu (Henry) Liang, Kaiyun Fu; Hongxia Gao; Helei Liu; Cao Fan,; Wichitpan Rongwong, Teerawat Sema, Amr Henni, Kazi Sumon, Huancong Shi, Teeradet Supap, Christine W. Chan, Qing Zhou, Don Gelowitz; Chintana Saiwan, Abdelbaki Benamor, Mohammed. J. Al-Marri, Malcolm Wilson; Raphael Idem, Paitoon Tontiwachwuthikul, Recent progress and new developments in post-combustion carbon-capture technology with reactive solvents, International Journal of Greenhouse Gas Control (2015), 40, 26–54
33. Abdelbaki Benamor and Mohammed Jaber Al-Marri, Reactive Absorption of Carbon Dioxide into Piperazine Activated Diethanolamine Solutions, Australian Journal of Basic and Applied Sciences, Special (2015), 9(8), Pages: 67-73. 2015

34. Ying Tao Chung, Muneer M. Ba-Abbadab, Abdul Wahab Mohammad, Abdelbaki Benamor, Functionalization of zinc oxide (ZnO) nanoparticles and its effects on polysulfone-ZnO membranes, Desalination and Water Treatment, (2015), 1–11.
35. Al-Hawari A, Khader M, El-Hasan W, Alijla M, Manawi A, Benamor A.. A Life Cycle Assessment (LCA) of Aluminum Production Process. International Journal of Mechanical, Aerospace, Industrial, and Mechatronics Engineering (2014), 8, 692–698.
36. Benamor, A. and Al-Marri. M. J., Modeling Analysis of Corrosion behavior of Carbon Steel in CO2 loaded Amine Solutions, International Journal of Chemical Engineering and Applications (IJCEA), (2014), 5(4) 353-358.
37. Benamor, A. and Al-Marri. M. J., Reactive Absorption of CO2 into Aqueous Mixtures of Methyldiethanolamine and Diethanolamine, International Journal of Chemical Engineering and Applications (IJCEA), (2014), 5(4) 291-297.
38. Benamor, A., Younis, M. A., Rahim. N., and Mekhilef, S., Control of a dc source supplied by a proton exchange membrane fuel cell. *Journal of Energy and Environment*, (2012), 4(1)*, 12-17.*
39. Benamor, A, Si Ali, B, and Aroua, M. K., Kinetic of CO_2 Absorption and Carbamate Formation in Aqueous Solutions of Diethanolamine., *The Korean Journal of Chemical Engineering*, (2008), 25(3), 451-460.
40. Benamor, A, and Aroua, M. K, An Experimental Investigation on the Rate of CO2 Absorption into Aqueous Methyldiethanolamine Solutions, *The Korean journal of Chemical Engineering*, (2007), 1(24), 16-23, 2007.
41. Benamor, A, and Aroua, M. K, Modeling of CO2 Solubility and Carbamate Concentration in DEA, MDEA and Their Mixtures Using the Deshmukh-Mather Model, *Fluid Phase Equilibria.* (2005), 231 150–162.
42. Aroua, M. K., Benamor, A, and Haji Sulaiman, M. Z., "Equilibrium Constant for Carbamate Formation from Monoethanolamine and Its Relationship with Temperature", *J. Chem. Eng. Data*. (1999), 44(5), 887-891.
43. Haji Sulaiman, M. Z., Aroua, M. K. and Benamor, A., "Analysis of Equilibrium Data of CO_2 in Aqueous Solutions of Diethanolamine (DEA), Methyldiethanolamine (MDEA) and Their Mixtures Using the Modified Kent Eisenberg Model", *Chemical Engineering Research and Design*, *Trans IChemE*. (1998), A (76), 961-968.
44. Aroua, M. K., Benamor, A, and Haji Sulaiman, M. Z. "Temperature Dependency of the Equilibrium Constant for the Formation of Carbamate from Diethanolamine" *J. Chem. Eng. Data*, (1997), 42 (4), 692-696.

Conference Proceedings

1. Abdelbaki Benamor and Mohammed Jaber Al-Marri, reaction Kinetics of Carbon Dioxide with Ethanolamine in Aqueous Solutions Using Stopped Flow Technique. 6th International Chemical and Environmental Engineering Conference (ICEEC-2015), 27-29 December 2015, Kuala Lumpur, Malaysia
2. Muneer Mohammed Ba-Abbad, Abdul wahab Mohammad, Ebrahim Mahmoudi, Khalefa Faneer and Abdelbaki Benamor, novel Graphene-Zinc Iron Oxide Composite to Enhance Ultrafiltration Membrane Performance for Water Treatment and Desalination. The Qatar Foundation Annual Research Conference 2016 (ARC'16), 22nd-23rd March 2016.
3. Kui Wang, Yehia M. Manawi, Viktor Kochkodan, Muataz A.Hussien, Marwan Khraisheh, Abdelbaki Benamor, Mechanical Behavior of a Novel Nanocomposite Polysulphone – Carbon Nanotubes Membrane for Water Treatment. The Qatar Foundation Annual Research Conference 2016 (ARC'16), 22nd-23rd March 2016.

4. Nacim Zemour, Abdelwahid Azzi, Omar Rahli, Muneer M. Ba-Abbad, AbdulWahab Mohammad, Nidal Hilal and Abdelbaki Benamor. Mathematical modeling of the reverse osmosis desalination process using spiral wound membrane. 2nd International Conference on Desalination and Environment. 23-26 January 2016, Doha, Qatar
5. Muneer M. Ba-Abbad, Mohd S. Takriff, Ebrahim Mahmoudi, Ying Tao Chung, Abdul Wahab Mohammad and Abdelbaki Benamor, Co^{2+} ions doped ZnO Nanoparticles for Enhancement of Surface Hydrophilicity of Polysulfone Membrane. 2nd International Conference on Desalination and Environment, Doha, Qatar, 23-26 January 2016.
6. Abdelbaki Benamor, Ahmed Gomaa Talkhan and Mohammed Jaber Al-Marri. , Corrosion Study of Carbon Steel in CO_2 Loaded Amine-Amino Acid Solutions- Case of N-Methyldiethanolamine and Arginine, Global Conference on Engineering & Technology, Kuala Lumpur, June 1-2, 2016
7. Abdelbaki Benamor, Mohammed Jaber Al-Marri and Wichitpan Rongwong, Reaction kinetics of some important alkanolamines with carbon dioxide in aqueous solutions using stopped flow technique, 2015 AIChE Annual Meeting, November 8-13, 2015, Salt Lake City, Utah, USA.
8. Abdelbaki Benamor, Mohammed Jaber Al-Marri, Wichitpan Rongwong and Paitoon Tontiwachwuthikul, kinetics of co_2 reaction with solutions of N-methyldiethanolamine mixed with selected amino acids using stopped flow technique, 2015 AIChE Annual Meeting, November 8-13, 2015, Salt Lake City, Utah, USA
9. Abdelbaki Benamor and Mohammed Jaber Al-Marri, Studying The Promoting Effect of Glycine on The Kinetics of Carbon Dioxide Reaction with Methyldiethanolamine Using Stopped Flow Technique, International Conference on Engineering and Natural Science (ICENS) Kuala Lumpur, Malaysia 14th March 2015
10. Annemieke van de Runstraat, Erwin Giling, Abdelbaki Benamor and Earl L.V. Goetheer, Design philosophy GPC high pressure pilot plant, Proceedings of the 4th International Gas Processing Symposium, October 26–27, 2014 , Doha, Qatar. 2014 .
11. Annemieke van de Runstraat, Earl L.V. Goetheer, Daphne E. Bakker Alexey V. Volkov, and Abdelbaki Benamor, Membrane Gas Desorption for Natural Gas Treating, Proceedings of the 4th International Gas Processing Symposium, October 26–27, 2014 , Doha, Qatar. 2014 .
12. Leen van der Ham, Andries van Eckeveld, Abdelbaki Benamor and Earl Goetheer, Real-time monitoring of solvent composition for acid gas absorption processes, Proceedings of the 4th International Gas Processing Symposium, October 26–27, 2014 , Doha, Qatar. 2014 .
13. Abdelbaki Benamor and Abdelwahab Aroussi, Towards a Technology Roadmap for Carbon Capture and Management for Qatar, 2nd International Conference on Chemical Processes and Environmental issues (ICCEEI'2013), July 1-2 Bangkok, Thailand, 2013.
14. Abdelbaki Benamor., Abdelwahab Aroussi, Modeling Analysis of CO_2 Solubility in Solutions of DEA, MDEA and Their Mixtures Using Kent-Eisenberg and Deshmukh-Mather models, the 3rd international Conference on Chemical, Biological and Environmental Sciences (ICCEBS'2013), Jan.8-9, Kuala Lumpur, Malaysia, 2013.
15. Abdelbaki Benamor, Aifahani Baharun, Umi Zaleha M. Noor, Mohamed Kheireddine Aroua, and Abdelwahab Aroussi, Absorption of Carbon Dioxide into Piperazine Activated Diethanolamine Solutions, Proceedings of the 3rd International Gas Processing Symposium, March 5 - 7 2012 , Qatar.
16. Abdelbaki Benamor, Mohamed Kheireddine Aroua, and Abdelwahab Aroussi, Kinetics of CO_2 Absorption Into Aqueous Blends of Diethanolamine and Methyldiethanolamine, Proceedings of the 3rd International Gas Processing Symposium, March 5 - 7 2012 , Qatar.
17. Abdelbaki Benamor, Mohamed Guellal and Abdelwahab Aroussi, Hamlaoui Abdesslem and Hassan. H. Masjuki., Performance of a Solar Assisted Heat Pump Using Different Refrigerants, International Conference on Applications And Design In Mechanical engineering, (ICADME 2012), 27-28, February, Penang, Malaysia 2012.

18. Abdelbaki Benamor, Credit in Mathematics as a Predictor of Success in Chemical Engineering in Sohar University-Oman, 2nd Regional Conference on Educational Leadership and Management JITRA, Kedah- Malaysia, 4-7 July 2011.
19. Natarajan Rajamohan, Marwan Shamel and Abdelbaki Benamor, Adsorption of Congo red onto Acid Activated Water Hyacinth, 2nd International Conference on Biotechnology Engineering, Kuala Lumpur, Malaysia, 17 - 19 May 2011.
20. Benamor and H. Abdesslem, Performance of a Solar Assisted Heat Pump for Domestic Use, ICHT 2011 Proceedings, Muscat, 13- 14 April 2011.
21. Benamor, A., Younis, M. A. A., A. Rahim. N., and Mekhilef, S.,Simulation of Regulated Dc Source Supplied By Proton Exchange Membrane Fuel Cell PEMFC Model, Proceedings of International Conference on Advances in Renewable Energy Technologies, ICARET2010-020, Cyberjaya, Malaysia, 6-7 July 2010.
22. Benamor, A, and Aroua, M. K, "Kinetics of CO_2 Absorption into Aqueous Mixtures of DEA and MDEA", 17th Symposium of Malaysian Chemical Engineers (SOMChE03) p300-305, Penang, Malaysia, 2003.
23. Sulaiman, M. Z., Aroua, M. K. and Benamor, A., "Kinetics of CO_2 absorption into aqueous mixtures of diethanolamine (DEA) and methyldiethanolamine (MDEA)", Poster presentation (P1-086) at the 6th World Congress of Chemical Engineering, Melbourne, Australia, 23-27 September 2001.
24. Sulaiman, M. Z., Mohd Salleh, R, Benamor, A and Aroua, M. K., "Equilibrium solubility of CO_2 in aqueous solutions of single amine and their mixtures", Proceedings of The Regional Symposium on Chemical Engineering, Bandung Indonesia, 30th -31st October 2001.
25. Haji Sulaiman, M. Z., Benamor, A, and Aroua, M. K., "Studies on the Kinetics of CO_2 Absorption into Aqueous Solutions of Diethanolamine", Proceedings RMK7 IRPA Research Seminar, 24-25 July, University of Malaya, p 54-57, 2001.
26. Haji Sulaiman, M. Z., Benamor, A, and Aroua, M. K., Kinetics of CO_2 absorption into mixed amine solutions. 14th International Congress of Chemical and Process Engineering 27 - 31 August, Praha, Czech Republic, 2000.
27. Benamor, A, and Aroua, M. K, and Haji Sulaiman, M. Z, 'Kinetics of CO_2 absorption into aqueous solutions of diethanolamine', Proceedings of SOMChE 2000, Bangi, Selangor, pp 263 –272, 30 31 October 2000.
28. Haji-Sulaiman, M. Z., Aroua, M. K. and Benamor, A., 'Solubility of CO_2 in aqueous solutions of DEA and MDEA and their mixtures', Presented at the Indian Chemical Engineering Congress. New Delhi, India, December 1997.
29. Benamor, A.., Aroua, M. K. and Haji-Sulaiman, M. Z. 'Equilibrium of CO_2 in aqueous mixtures of DEA and MDEA', Proceedings of the Regional Symposium on Chemical Engineering 97, UTM, 12-15 December 1997 (pp 620).

Technical Reports

- Sasol Project
  Research project progress report entitled "Characterization of Degraded Amine Solvents to Identify Oxidation Products", Report submitted to Sasol–Qatar , Jan 12th, 2015

- Oryx GTL project
  Research Project Technical report 1 "Process Development for CO2 Capture: Bench Scale Tests of Selected Chemical Solvents", Submitted to Oryx-GTL Qatar , Dec 30th , 2013
  Research Project Technical report 2 "Process Development for CO2 Capture: Bench Scale Tests of Selected Chemical Solvents", Submitted to Oryx-GTL Qatar , Jan10th , 2015

Non-Technical Reports:

- Technology Roadmap for Carbon Capture and Management-Ver 1", Report submitted to Gas Processing Center, Faculty of Engineering, Qatar University, May 2012, Doha, Qatar
- The role of mathematics in chemical engineering education" Submitted to the faculty of engineering, University of Malaya. April 2005, Kuala Lumpur, Malaysia

Workshop/Forum Attendance and Presentations

1. Attended the 22nd Annual Technical Conference of the GPA GCC Chapter in Bahrain on May 13-15, 2014.
2. Abdelbaki Benamor and Abdelwahab Aroussi, Process Development For CO_2 Capture:- Bench Scale Tests of Selected Chemical Solvents. The 7th QP Environment Fair, 14-16 April 2013. Doha Exhibition Center, Doha, Qatar.
3. Abdelbaki Benamor and Abdelwahab Aroussi, Development of an Amine Based Pilot Plant for CO_2 Capture from Natural Gas.The 7th QP Environment Fair, 14-16 April 2013, Doha Exhibition Center, Doha, Qatar.
4. Abdelbaki Benamor, Evaluation of performance of various amine systems for CO_2 capture, COP18 Exhibition, Doha Exhibition Center, Dec 2nd 2012, Doha, Qatar.
5. Abdelbaki Benamor and Abdelwahab Aroussi, Analysis of CO_2 Equilibrium Data in Aqueous Solutions of DEA, MDEA and Their Mixtures Using the Modified Kent Eisenberg Model and the Deshmukh–Mather Model. Qatar Foundation Annual Research Forum and Arab Expatriate Scientists Network, October 21-23, 2012, Doha, Qatar.
6. Abdelbaki Benamor, "CO_2 capture from natural gas: conventional and emerging technologies", Carbon Capture & Storage - Horizons and Challenges-workshop, Gas Processing Center, Faculty of Engineering, Qatar University, 10 - 11 October, 2012, Doha, Qatar.
7. Abdelbaki Benamor "Carbon Capture &Management- Towards a GPC Roadmap", Gas Processing Center, Faculty of Engineering, Qatar University May 21st 2012, Doha, Qatar.
8. Abdelbaki Benamor, Absorption of Carbon Dioxide into Piperazine Activated Diethanolamine Solutions, Gas Processing Center, Faculty of Engineering, Qatar University, Dec 29th 2011, Doha, Qatar.
9. Abdelbaki Benamor, "Carbon Dioxide Capture Technologies - Absorption of CO_2 Using Chemical Solvents", Gas Processing Center, Faculty of Engineering, Qatar University, 17 Nov 2011, Doha, Qatar.
10. Abdelbaki Benamor, Carbon Capture Research Highlights, Gas Processing Center, Faculty of Engineering, Qatar University, Nov 15th 2011, Doha, Qatar
11. Abdelbaki Benamor, "Overview on Carbon Dioxide Capture Research" School of Chemical and Environmental Engineering, University of Nottingham-Malaysia Campus, Feb 22nd 2007, Kuala Lumpur, Malaysia
12. Abdelbaki Benamor, "Kinetics of CO_2 Absorption into Aqueous Solutions of Diethanolamine, Methyldiethanolamine and their mixtures", School of Chemical and Environmental Engineering, University of Nottingham-Malaysia Campus, March 21st, 2006, Kuala Lumpur, Malaysia.
13. Abdelbaki Benamor, "Kinetics of CO_2 absorption into aqueous mixtures of DEA and MDEA", Department of Chemical Engineering, University of Malaya, Dec 29th 2003, Kuala Lumpur Malaysia.

Funded Projects

No	Title of Research	Granting Body	Grant Amount	Project Duration (years)	Role in research*
1	Advanced CO2 Separation Technology for Natural Gas Processing	Qatar National Research Foundation (QNRF), NPRP	$890,000.00	2015-2018	Lead PI

2	Reconfigurable Smart Wireless Gas Sensor Network	Qatar University Research Grant	$41,000.00	2015	PI
3	Development and surface interaction study of Low-Fouling Nanofiltration Membranes for Desalination	Qatar National Research Foundation (QNRF), NPRP	$950,000.00	2014-2017	Co-Lead
4	Characterization of Degraded Amine Solvents to Identify Oxidation Products	Sasol-Qatar	$140,000.00	2013-2016	Lead PI
5	Process Development For CO2 Capture:- Bench Scale Tests of Selected Chemical Solvents	ORYX-GTL Qatar	$200,000.00	2013-2015	Lead PI
6	Environmental life cycle assessment of aluminium production: a case study in Qatar	Qatar National Research Foundation (QNRF), UREP	$47,000.00	2013-2014	Co-lead
7	Design of Energy System Project- Wind Turbine for micro-generation in Qatar	Qatar National Research Foundation (QNRF), UREP	$57,000.00	2011-2012	Co-lead
8	Development of a new Environmentally benign Solvent for CO2 Absorption	Ministry of Science and Technology Malaysia , (IRPA Fund)	$63,000.00	2009-2011	Lead PI

Referees

Available upon request