

CURRICULUM VITAE OF IGOR KRUPA

A. PERSONAL DATA

NAME: Igor KRUPA

BIRTH DATE: March 27, 1968

BIRTH PLACE: Trenčín, SLOVAKIA (former Czechoslovakia)

MERITAL STATUS: married +2

PERMANENT WORK ADDRESS: Qatar University, Center for Advanced Materials
P.O. Box: 2713 Doha, Qatar

E-mail: igor.krupa@qu.edu.qa

A1. Language skills: Slovak – native, English – advanced, Russian – intermediate
German and French – low intermediate

A2. Professional interest: Polymeric blends and composites
Electrically and thermally conductive composites
Water treatment
Polymeric photo-actuators
Phase change materials
Sol – gel chemistry
Modifications of polymeric surfaces
Polymeric membranes for water/oil separation

B. EDUCATION

1982 – 1986 High school, Nové Mesto nad Váhom, SLOVAKIA

1986 – 1991 Slovak Technical University, Faculty of Chemical Technology,
Bratislava, SLOVAKIA

Major: Technical Physical and Analytical Chemistry

Academic degree: Engineer of Chemistry (equivalent to MSc)

Thesis: “Time of chemical bond dissociation/Dissociation of Morse oscillator”

1996 – 1999 Doctoral study at the Polymer Institute of Slovak Academy of
Sciences, Bratislava, SLOVAKIA. PhD degree was obtained in 1999.

Dissertation: “The influence of carbon fillers on the physical
properties of polymeric composites”

C. PROFESSIONAL BACKGROUND

1993 - 1994: Institute of Inorganic Chemistry, Slovak Academy of Sciences, SLOVAKIA
Position: researcher

1994 – 2012: Polymer Institute, Slovak Academy of Sciences, SLOVAKIA
Positions: PhD student, research fellow, Head of
Department of theoretical and applied research of polymeric materials (2009-May 2011)
Head of *Department of composite materials*
(from May 2011 to September 2012)

From September 2012: Center for Advanced Materials, Qatar University
Position: research associate professor, QAPCO Polymer Chair

D. RESEARCH ABROAD

Duration	Institution	Position
August 1999 - December 2000	University of the North, South Africa	postdoctoral research
January 2002 – June 2003	RHODIA RESEARCH CENTRUM, Lyon, France	postdoctoral research (Marie Curie fellowship)
March 2006 – Mai 2006	University of the Free State, South Africa	visiting scientist
Mai 2007	Universidad Carlos III de Madrid, Madrid, Spain	visiting professor
April 2009-Mai 2009	Université Paris 12 Val de Marne, Paris, France	visiting professor
April 2010-Mai 2010	Université Paris 12 Val de Marne, Paris, France	visiting professor
Mai 2012-June 2012	Université Paris 12 Val de Marne, Paris, France	visiting professor

E. PAPERS IN INTERNATIONAL PEER-REVIEWED JOURNALS

The author or co-author of **112** of peer-reviewed papers indexed in SCOPUS and **six** chapters in the books. Over **100** presentations on the international conferences.

3,460 citations (SCOPUS)
Hirsch Index = 37 (SCOPUS)

4,600 citations (GOOGLE SCHOLAR)
Hirsch Index = 41 (GOOGLE SCHOLAR)

Edited books

Polyolefin Compounds and Materials, Springer International Publishing, Heidelberg, New York, Dordrecht, London, Eds. Mariam Al A AlMaadeed, Igor Krupa (2016)

List of peer-reviewed papers indexed in SCOPUS

1. Igor Krupa, Patrik Sobolciak and Miroslav Mrlik, Smart Non-Woven Fiber Mats with Light-Induced Sensing Capability, *Nanomaterials* 2020, 10, 77.
2. Abdolali Moghaddasi, Patrik Sobolciak, Anton Popelka, Kishor Kumar Sadasivuni, Zdeno Špitalský, and Igor Krupa, Electrically Conductive Electrospun Polymeric Mats for Sensing Dispersed Vegetable Oil Impurities in Wastewater, *Processes* 2019, 7, 906
3. Khoulood Jlassi, Kamel Eid, Mostafa H. Sliem, Aboubakr M. Abdullah, Mohamed M. Chehimi and Igor Krupa, Rational synthesis, characterization, and application of environmentally friendly (polymer-carbon dot) hybrid composite film for fast and efficient UV-assisted Cd²⁺ removal from water, *Environ Sci Eur* (2020) 32:12, 1-13.
4. Lenka Lorencova, Veronika Gajdosova, Stefania Hroncekova, Tomas Bertok, Monika Jerigova, Dusan Velic, Patrik Sobolciak, Igor Krupa, Peter Kasak, and Jan Tkac, Electrochemical Investigation of Interfacial Properties of Ti₃C₂T_x MXene Modified by Aryldiazonium Betaine Derivatives, *Frontiers in Chemistr*, (2020) | Volume 8, Article 553, 1-10.
5. AbdolAli Moghaddasi, Patrik Sobolciak, Anton Popelka, and Igor Krupa, Separation of Water/Oil Emulsions by an Electrospun Copolyamide Mat Covered with a 2D Ti₃C₂T_x MXene, *Materials* (2020), 13, 3171
6. Sneha Bhagyaraj, Igor Krupa, Alginate-Mediated Synthesis of Hetero-Shaped Silver Nanoparticles and Their Hydrogen Peroxide Sensing Ability, *Molecules* 2020, 25, 435
7. Sifani Zavahir 1, Patrik Sobolciak, Igor Krupa, Dong Suk Han, Jan Tkac, and Peter Kasak, Ti₃C₂T_x MXene-Based Light-Responsive Hydrogel Composite for Bendable Bilayer Photoactuator, *Nanomaterials* 2020, 10, 1419
8. Martin Prostedrný, Igor Krupa, and Zdenko Špitalský, Preparation and Characterization of New Electrically Conductive Composites Based on Expanded Graphite with Potential Use as Remote Environmental Detectors, *Processes* (2020), 8, 1176
9. Josef Osicka, Miroslav Mrlik, Marketa Ilcikova, Igor Krupa, Patrik Sobolciak, Tomáš Plachý, Jaroslav Mosnáček, Controllably coated graphene oxide particles with enhanced compatibility with poly(ethylene-co-propylene) thermoplastic elastomer for excellent photo-mechanical actuation capability, *Reactive and Functional Polymers* (2020), 148, 104487
10. Patrik Sobolciak, Anton Popelka, Aisha Tanvir, Mariam A Al-Maadeed, Samer Adham, and Igor Krupa, Materials and Technologies for the Tertiary Treatment of Produced Water Contaminated by Oil Impurities through Nonfibrous Deep-Bed Media: A Review, *Water* 2020, 12, 3419
11. Patrik Sobolciak, Asma Abdulgader, Miroslav Mrlik, Anton Popelka, Ahmed A. Abdala,
12. Abdelnasser A. Aboukhlewa, Mustapha Karkri, Hendrik Kiepfer, Hans-Jörg Bart, and
13. Igor Krupa, Thermally Conductive Polyethylene/Expanded Graphite Composites as Heat Transfer Surface: Mechanical, Thermo-Physical and Surface Behavior, *Polymers* 2020, 12, 2863
14. Bhagyaraj, S., Krupa, I., Alginate-halloysite nanocomposite aerogel: Preparation, structure, and oil/water separation applications, *Biomolecules*, 2020, 10(12), pp. 1-16, 1632
15. Zavahir, S., Krupa, I., AlMaadeed, S.A., Tkac, J., Kasak, P. Hydrogels in Engines Based on the Antipolyelectrolyte Effect and Driven by the Salinity Gradient, (2019) *Environmental Science and Technology*, 53(15), pp. 9260-9268

16. Abdelrazeq, H., Sobolčiak, P., Al-Maadeed, M.A.-A., Ouederni, M., Krupa, I. Recycled polyethylene/paraffin wax/expanded graphite based heat absorbers for thermal energy storage: An artificial aging study, (2019) *Molecules*, 4(7),1217 (12 pages)
17. Sobolciak, P., Tanvir, A., Popelka, A., Spitalsky, Z., Mrlik, M., Krupa, I. Electrospun Copolyamide Mats Modified by Functionalized Multiwall Carbon Nanotubes, (2019) *Polymer Composites* 40(S2), pp. E1451-E1460
18. Abusrafa, A.E., Habib, S., Krupa, I., Ouederni, M., Popelka, A. Modification of polyethylene by RF plasma in different/mixture gases, (2019) *Molecules*, 9(2),145 (24 pages)
19. Tanvir, A., Sobolciak, P., Popelka, A., Mrlik, M., Spitalsky, Z., Micusik, M., Prokes, J., Krupa, I. Electrically Conductive, Transparent Polymeric Nanocomposites Modified by 2D Ti3C2Tx (MXene), (2019) *Polymers*, 11, 1272 (19 pages)
20. Jlassi, K., Radwan, A.B., Sadasivuni, K.K., Mrlik, M., Abdullah, A.M., Chehimi, M.M., Krupa, I. Anti-corrosive and oil sensitive coatings based on epoxy/polyaniline/magnetite-clay composites through diazonium interfacial chemistry, (2018) *Scientific Reports*, 8 (1), art. no. 13369.
21. Jlassi, K., Abidi, R., Benna, M., Chehimi, M.M., Kasak, P., Krupa, I. Bentonite-decorated calix [4] arene: A new, promising hybrid material for heavy-metal removal, (2018) *Applied Clay Science*, 161, pp. 15-22.
22. Shehata, N., Kandas, I., Hassounah, I., Sobolčiak, P., Krupa, I., Mrlik, M., Popelka, A., Steadman, J., Lewis, R. Piezoresponse, mechanical, and electrical characteristics of synthetic spider silk nanofibers, (2018) *Nanomaterials*, 8 (8), art. no. 585.
23. Jlassi, K., Zavahir, S., Kasak, P., Krupa, I., Mohamed, A.A., Chehimi, M.M. Emerging clay-aryl-gold nanohybrids for efficient electrocatalytic proton reduction, (2018) *Energy Conversion and Management*, 168, pp. 170-177.
24. Kandas, I., Shehata, N., Hassounah, I., Sobolčiak, P., Krupa, I., Lewis, R. Optical fluorescent spider silk electrospun nanofibers with embedded cerium oxide nanoparticles, (2018) *Journal of Nanophotonics*, 12 (2), art. no. 026016.

25. Novák, I., Valentin, M., Špitalský, Z., Popelka, A., Sestak, J., Krupa, I. Superhydrophobic Polyester/Cotton Fabrics Modified by Barrier Discharge Plasma and Organosilanes, (2018) *Polymer - Plastics Technology and Engineering*, 57 (5), pp. 440-448.
26. Popelka, A., Novák, I., Al-Maadeed, M.A.S.A., Ouederni, M., Krupa, I. Effect of corona treatment on adhesion enhancement of LLDPE, (2018) *Surface and Coatings Technology*, 335, pp. 118-125.
27. Sobolciak, P., Tanvir, A., Popelka, A., Spitalsky, Z., Mrlik, M., Krupa, I. Electrospun Copolyamide Mats Modified by Functionalized Multiwall Carbon Nanotubes (2018) *Polymer Composites*. Article in Press. DOI: 10.1002/pc.25049.
28. Sobolčiak, P., Tanvir, A., Popelka, A., Moffat, J., Mahmoud, K.A., Krupa, I. The preparation, properties and applications of electrospun co-polyamide 6,12 membranes modified by cellulose nanocrystals (2017), *Materials and Design*, 132, pp. 314-323.
29. Krupa, I., Sobolčiak, P., Abdelrazeq, H., Ouederni, M., Al-Maadeed, M.A. Natural aging of shape stabilized phase change materials based on paraffin wax, (2017) *Polymer Testing*, 63, pp. 567-572.
30. Sobolčiak, P., Popelka, A., Mičušík, M., Sláviková, M., Krupa, I., Mosnáček, J., Tkáč, J., Lacík, I., Kasák, P. Photoimmobilization of zwitterionic polymers on surfaces to reduce cell adhesion, (2017) *Journal of Colloid and Interface Science*, 500, pp. 294-303.
31. Sobolčiak, P., Ali, A., Hassan, M.K., Helal, M.I., Tanvir, A., Popelka, A., Al-Maadeed, M.A., Krupa, I., Mahmoud, K.A. 2D Ti₃C₂Tx(MXene)-reinforced polyvinyl alcohol (PVA) nanofibers with enhanced mechanical and electrical properties (2017) *PLoS ONE*, 12 (8), art. no. e0183705.
32. Popelka, A., Krupa, I., Novák, I., Al-Maadeed, M.A.S.A., Ouederni, M. Improvement of aluminum/polyethylene adhesion through corona discharge, (2017) *Journal of Physics D: Applied Physics*, 50 (3), art. no. 035204.
33. Sobolčiak, P., Abdelrazeq, H., Özerkan, N.G., Ouederni, M., Nógellová, Z., AlMaadeed, M.A., Karkri, M., Krupa, I. Heat transfer performance of paraffin wax based phase change materials applicable in building industry. (2016) *Applied Thermal Engineering*, 107, pp. 1313-1323.
34. Ponnamma, D., Sadasivuni, K.K., Strankowski, M., Kasak, P., Krupa, I., AlMaadeed, M.A.-A. Eco-Friendly Electromagnetic Interference Shielding Materials from Flexible Reduced Graphene Oxide Filled Polycaprolactone/Polyaniline Nanocomposites (2016) *Polymer - Plastics Technology and Engineering*, 55 (9), pp. 920-928.
35. Ponnamma, D., Sadasivuni, K.K., Thomas, S., Krupa, I., Al-Ali AlMa'adeed, M. Flexible oil sensors based on multiwalled carbon nanotube-filled isoprene elastomer composites. (2016) *Rubber Chemistry and Technology*, 89 (2), pp. 306-315.
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39. Sobolciak, P., Mrlík, M., Almaadeed, M.A., Krupa, I, Calorimetric and dynamic mechanical behavior of phase change materials based on paraffin wax supported by expanded graphite, (2015) *Thermochimica Acta*, 617, pp. 111-119.
40. Sobolčiak, P., Abdelrazeq, H., Ouederni, M., Karkri, M., Al-Maadeed, M.A., Krupa, I. The stabilizing effect of expanded graphite on the artificial aging of shape stabilized phase change materials, (2015) *Polymer Testing*, 46, pp. 65-71.
41. Krupa, I., Nógellová, Z., Špitalský, Z., Malíková, M., Sobolčiak, P., Abdelrazeq, H.W., Ouederni, M., Karkri, M., Janigová, I., Al-Maadeed, M.A.S.A., Positive influence of expanded graphite on the physical behavior of phase change materials based on linear low-density polyethylene and paraffin wax (2015), *Thermochimica Acta*, 614, pp. 218-225.
42. AlMaadeed, M.A., Labidi, S., Krupa, I., Karkri, M., Effect of expanded graphite on the phase change materials of high density polyethylene/wax blends, (2015) *Thermochimica Acta*, 600, pp. 35-44.
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46. Špitalský, Z., Kratochvíla, J., Csomorová, K., Krupa, I., Graça, M.P.F., Costa, L.C., Mechanical and Electrical Properties of Styrene-Isoprene-Styrene Copolymer Doped with Expanded Graphite Nanoplatelets, (2015) *Journal of Nanomaterials*, 2015, art. no. 168485,.

47. Krupa, I., Prostředný, M., Špitalský, Z., Krajčí, J., Almaadeed, M.A.S., Electrically conductive composites based on an elastomeric matrix filled with expanded graphite as a potential oil sensing material, (2014) *Smart Materials and Structures*, 23 (12), art. no. 125020
48. Sadasivuni, K.K., Ponnamma, D., Kasak, P., Krupa, I., Al-Maadeed, M.A.S.A.. Designing dual phase sensing materials from polyaniline filled styrene-isoprene-styrene composites, (2014) *Materials Chemistry and Physics*, 147 (3), pp. 1029-1036.
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52. Ilčíková, M., Mrlík, M., Sedláček, T., Chorvát, D., Krupa, I., Šlouf, M., Koynov, K., Mosnáček, J., Viscoelastic and photo-actuation studies of composites based on polystyrene-grafted carbon nanotubes and styrene-b-isoprene-b-styrene block copolymer, (2014) *Polymer (United Kingdom)*, 55 (1), pp. 211-218.
53. Krupa, I., Nógellová, Z., Špitalský, Z., Janigová, I., Boh, B., Sumiga, B., Kleinová, A., Karkri, M., Almaadeed, M.A., Phase change materials based on high-density polyethylene filled with microencapsulated paraffin wax, (2014) *Energy Conversion and Management*, 87, pp. 400-409.
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62. Kratochvíla, J., Boudenne, A., Krupa, I., Effect of filler size on thermophysical and electrical behavior of nanocomposites based on expanded graphite nanoparticles filled in low-density polyethylene matrix, (2013) *Polymer Composites*, 34 (2), pp. 149-155.
63. Krupa, I., Cecen, V., Boudenne, A., Prokeš, J., Novák, I., The mechanical and adhesive properties of electrically and thermally conductive polymeric composites based on high density polyethylene filled with nickel powder, (2013) *Materials and Design*, 51, pp. 620-628.
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65. Krupa, I., Cecen, V., Boudenne, A., Križanová, Z., Vávra, I., Srnánek, R., Radnóczy, G., Mechanical Properties and Morphology of Composites Based on the EVA Copolymer Filled with Expanded Graphite, (2012) *Polymer - Plastics Technology and Engineering*, 51 (13), pp. 1388-1393.
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2. Sobolciak, P., Karkri, M., Krupa, I., Al Maadeed, M., Storage and release of thermal energy of phase change materials based on linear low density of polyethylene, parafin wax and expanded graphite, (2015) *Proceedings of the TMS Middle East - Mediterranean Materials Congress on Energy and Infrastructure Systems, MEMA 2015*, pp. 395-402.
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7. Förster, T., Strohhofer, C., Bock, K., Kasak, P., Danko, M., Kronekova, Z., Nedelcev, T., Krupa, I., Lacik, I., Biosensor for calcium based on a hydrogel optical waveguide with integrated sensor proteins, (2009) *TRANSDUCERS 2009 - 15th International Conference on Solid-State Sensors, Actuators and Microsystems*, art. no. 5285877, pp. 1218-1221.
8. Boudenne, A., Krupa, I., Ibos, L., Thermophysical properties of polyethylene filled with silver coated polyamide particles, (2008) *Proceedings of the 29th International Thermal Conductivity Conference, ITCC29 and the Proceedings of the 17th International Thermal Expansion Symposium, ITES17*, pp. 229-238.

9. Mosnáček, J., Ilčíková, M., Chorvát, D., Czaniková, K., Krupa, I., Photoactuation behavior of styrene-b-isoprene-b-styrene filled with covalently modified carbon nanotubes, (2012) AIP Conference Proceedings, 1459 (1), pp. 193-195.

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2. Krupa, I., Thermal conductivity of thermoplastics filled with electrically conductive carbon black (Tepelná vodivosť termoplastov plnených elektrovodivými sadzami), (2001) *Plasty a Kaučuk*, 38(10), 298 – 30. [in Slovak]
3. Krupa, I., Application of selected models to the thermal conductivity of thermoplastics filled with graphite (Aplikácia vybraných modelov na tepelnú vodivosť termoplastov plnených grafitom), (2001) *Plasty a Kaučuk*, 38(12), 356-358 (2001) [in Slovak]
4. Nedelčev, T., Krupa, I., Hybrid organic-inorganic nanocomposites based on the sol-gel processes, prepared by the use of organofunctional silanes (Hybridné organicko-anorganické nanokompozitné materiály na báze sól-gél procesov, pripravené využitím organofunkčných silánov), (2006) *Plasty a Kaučuk*, 43(5-6), 13-20 (2006) [in Slovak]
5. Tavman, I., Çeçen, V., Özdemir, I., Turgut, A., Krupa, I., Omastova, M., Novak, I., Preparation and characterization of highly electrically and thermally conductive polymeric nanocomposites, (2009) *Archives of Materials Science and Engineering*, 40(2), 84-88.
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7. Hebeish, A., Ramadan, M., Montaser, A.S., Krupa, I., Farag, A.M., Molecular characteristics and antibacterial activity of alginate beads coated chitosan polyacrylonitrile copolymer loaded by silver nanoparticles (2015) *Journal of Scientific Research & Reports*, 5(6), 479 - 488.

Book Chapters

1. Handbook of Multiphase Polymer Systems, Eds. Boudenne, A., Ibos, L., Candau, Y. Thomas, S. in Krupa, I., Prokeš, J., Krivka, I., Špitalský, Z. Electrically conductive polymeric composites and nanocomposites, (2011) John Wiley & Sons, Ltd., pp. 425-455.
2. Soreto Teixeira, S., Graça, M., Dionisio, M., Ilčíkova, M., Ilčíkova, M., Krupa, I., Mosnacek, J., Spitalsky, Z., Krupa, I., Costa, L.C., Nanoparticles dispersed in a styrene-isoprene-styrene copolymer matrix, (2015) *NATO Science for Peace and Security Series A: Chemistry and Biology*, 39, pp. 273-279.

3. A Popelka, I Novak, I Krupa, Polyolefin Adhesion Modifications, Polyolefin Compounds and Materials, Springer International Publishing, Heidelberg, New York, Dordrecht, London, Eds. Mariam Al A AlMaadeed, Igor Krupa, p. 201-230 (2016)
4. CJ Chirayil, J Joy, HJ Maria, I Krupa, S Thomas, Polyolefins in Automotive Industry, Polyolefin Compounds and Materials, Springer International Publishing, Heidelberg, New York, Dordrecht, London, Eds. Mariam Al A AlMaadeed, Igor Krupa, p.265-283 (2016)
5. I Novák, A Popelka, Z Špitalský, I Krupa, S Tavman, Polyolefin in Packaging and Food Industry, Polyolefin Compounds and Materials, Springer International Publishing, Heidelberg, New York, Dordrecht, London, Eds. Mariam Al A AlMaadeed, Igor Krupa, p.181-199 (2016)
6. Khoulood Jlassi, Igor Krupa, Mohamed M. Chehimi, Overview: Chapter 1: Clay Preparation, Properties, Modification, in Clay-Polymer Nanocomposites 1st Edition, Eds. Khoulood Jlassi, Mohamed M. Chehimi, Sabu Thomas, Elsevier (2017)

F. PATENTS

1. Igor Krupa, Anton Popelka, Patrik Sobolciak, Miroslav Mrlik, Mariam Al Ali AlMaadeed, Insulating plastic foams based on polyolefins, US2018/0291166A1, Publ. date: 11/10/2018.

G. TEACHING

1. **CHEM 462**: Graduation Project : An improvement of polyethylene/alumina adhesion through physical treatment. Spring 2014.
2. **CHEM 462** Graduation Project: Isolation and characterization of cellulose fibers from date palm leaves. Spring 2014.
3. **MATS 599** (Master thesis of Eng. Haneen Wadi Abdelrazeq): ‘Heat absorbers based on recycled polyethylene and paraffin wax for energy storage in bioclimatic buildings’. Materials Science and Technology Program. 2015 -2016.
4. **MATS 599** (Master thesis of Eng. Abdol Ali Mohammad kazem Moghaddasi ‘Polymer-matrix nanocomposite membranes for water treatment’. Materials Science and Technology Program. 2017-2018.
5. **MATS 545**: Polymer Science and Analysis, Spring 2017
6. **MATS 545**: Polymer Science and Analysis, Spring 2018
7. **MATS 545**: Polymer Science and Analysis, Spring 2019
8. **MATS 545**: Polymer Science and Analysis, Spring 2019
9. Supervisor or co-supervisor of four PhD students before September 2012.
10. Supervisor of six master thesis after September 2012

H. RESEARCH PROJECTS

1. Marie Curie fellowship, project G1TR-CT-2000-00040, (2002-2003), **PI**
2. VEGA(2/6114/260):Preparation and properties of organic/inorganic nanocomposites based on sol-gel processes using organofunctional silanes, (2006-2008), **PI**
3. VEGA(2/0063/09): Electrically and thermally conductive polymeric nanocomposites on the base of nanostructuralised graphite, (2009-2011), **PI**
4. APVV (0478-07): Carbon nanocomposites for chemical sensing, (2008-2010), **co-PI**

5. Project 7FP Program: Theme 4 – NMP - Nanosciences, Nanotechnologies, Materials and new Production Technologies, FP7-NMP-2008-SMALL-2, Stage 1 CP-FP 228916-1, NOMS: Nano-Optical Mechanical Systems, (2009-2011), **co-PI**
6. COST Action: Next generation cost effective phase change materials for increased energy efficiency in renewable energy systems in buildings - NeCoE-PCM, 2009-2011, **national representativ**
7. APVV project as the support for "Nano-optical mechanical systems" Call: „FP7-NMP-2008-SMALL-2, (12/2009-8/2012), **PI**
8. P. Cezanne: Development of an implantable bio-sensor for continuous care and monitoring of diabetic patients, 6FP EU, (2006-2010), **member**
9. Thermonano—Low-Temperature Heat Exchangers Based on Thermally-Conducting Polymer Nanocomposites, 7FP EU, (2009-2011), **member**
10. Nanostructural modification of surface of textile materials, APVT- 99-035004, (2005-2007), **member**
11. Research, development and industrial utilization of nanosols for nanostructural modification of textiles, VMSP-P-0023-09, (2009-2011), **member**
12. Application of polymer nanocomposites with low content of graphene in electronical devices (APGRAPHEL), NT ERANet SAV Call 2011, (2012-2014), **co-PI**
13. COST Action MP1105. FLARETEX: Sustainable flame retardancy for textiles and related materials based on nanoparticles substituting conventional chemicals (2012-2014), **national representative**
14. QUUG-CAM-CAM-2013\2014-3: Thermally conductive composites based on linear low density polyethylene filled with metallised date palm wood powder. **LPI**
15. NPRP 4 - 465 - 2 – 173 New Phase Change Materials with Improved Heat Transfer Properties, Qatar National Fundation. (2012-2014). **PI**
16. NPRP 7-1724-3-438: Innovative electrospun conductive spider silk nanofibers for human nerve regrowth. (April 2015 –March 2018). **LPI**
17. UREP 15 - 071 - 2 – 025: Improvement of Tetra Pak containers production by plasma discharge. March 2014 – March 2015. **Mentor**
18. NPRP 8-878-1-172: Rational Design of Environmentally-Friendly Polymer-Carbon Dot Composite Color Light Emitting Diodes for Displays and Solid State Lighting. (2016 – 2019). **LPI**
19. NPRP10-0205-170349): Novel Thermally Enhanced Polymer Heat Exchanger for Multi Effect Distillation (MED) Desalination Plants. (2018 – 2021). **PI**
20. QUHI-CENG-2018\2019-1: Smart Assistive Tools for Visually Impaired People (2018-2019). **PI**
21. QUCG-CAM-19/20-2: Biopolymeric membranes for water/oil separation. (2019-2020). **LPI**
22. QUCG-CAM-20/21-4: Highly porous, hybrid electrospun membranes for boron ions capture from desalinated water. (2020-2021). **LPI**
23. QUEx-CAM-QAPCO-20/21: Improvement of interfacial adhesion between QAPCO LDPE packing grades and aluminum foil. (2020-2021). **LPI**
24. QUCG-CAM-20/21-3: Polyethylene-based filtration media for a separation of oily impurities from produced water. **PI**
25. NPRP12S-0311-190299: Development of Novel Polymeric Adsorbent Media for Produced Water Treatment. (2020-2022). **LPI**
26. NPRP13S-0127-200177: GreenHouses for Qatari Climate: Energy Saving Smart and Sustainable Phase Change Materials (Green3SPCM). (2021-2023). **LPI**
27. NPRP13S-0123-200153: Plasma-enhanced nano-catalytic polyamide membrane systems that minimize fouling and concentration polarization. (2021-2023). **PI**

I. AWARDS

Runner up in category Best Researcher in *Plastics excellence Award 2016* from the Gulf Petrochemicals &

Chemicals Association (GPCA) UAE with the entry entitled “Polyolefin based heat absorbers for bioclimatic buildings”.

J. POPULARISATION ACTIVITIES IN MEDIA

Recent research activities were popularized in the following media:

<http://www.qatar-tribune.com/viewnews.aspx?n=2182531D-35C3-40A9-912B-9BC9098AB6CC&d=20160106>

<http://www.thepeninsulaqatar.com/news/qatar/365122/qu-to-utilise-date-palm-waste-to-make-products>

<http://dohanews.co/qatar-university-experts-research-new-uses-for-palm-tree-waste/>

<http://qa.thetodaypost.com/qatar-university-experts-research-new-uses-for-palm-tree-waste-4273>

<http://www.gulf-times.com/story/473971/QU-CAM-research-on-utilising-palm-waste>