



# Ali I. Al-Mosawi

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*Ph.D.*

## Education

- Ph.D. in Polymers Engr., Faculty of Materials Science and Engineering, Polymers Department, Institute of Ceramic and Polymer Engineering, University of Miskolc, Hungary, 2021.
- M.Sc. in Polymers Engr., Materials Engineering Department, Faculty of Engineering, University of Babylon, Iraq, 2003.
- B.Sc. in Materials Engr., Materials Engineering Department, Faculty of Engineering, University of Babylon, Iraq, 2000.

## Research Interest

Flame retardants; Polymers and composites; Materials testing and processing; Degradation; Rubber technology.

## Websites

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# Publications Summary

Journal articles	Conference Papers	Patents	Books	Books chapters
109	40	8	19	1

## Journal Articles

1. Kahtan K.Al-Khazraji and **Ali I.Al-Mosawi**, Effect study of magnesium oxide on thermal conductivity of unsaturated polyester resin, *Journal of Babylon University/Engineering Sciences* , Vol.9, No.5, 2004, pp. 859–866. <https://doi.org/10.6084/m9.figshare.12571304>
2. Kahtan K.Al-Khazraji and **Ali I.Al-Mosawi**, Study of thermal behavior for composite material consisted from unsaturated polyester resin reinforced by palms and glass fibers, *Journal of Babylon University/Engineering Sciences*, Vol.9, No.5, 2004, pp. 867–876. <https://doi.org/10.6084/m9.figshare.12571475>
3. Abbas A.Al-Jeebory, **Ali I.Al-Mosawi**, and Mushtaq T.Albdiry, Experimental study of the effect of zinc borate on flame retardancy of carbon- kevlar hybrid fibers reinforced composite materials, *Al-Qadisiyah Journal for Engineering Sciences*, Vol.1, No.1, 2008, pp. 126–132. <https://doi.org/10.6084/m9.figshare.12573767>
4. **Ali I.Al-Mosawi** and Mushtaq T.Albdiry, Study of some mechanical properties for composite material consist of phenol formaldehyde resin reinforced by kevlar fibers, *Al-Qadisiyah Journal for Engineering Sciences*, Vol.1, No.2, 2008, pp. 56–66. <https://doi.org/10.6084/m9.figshare.12573854>
5. **Ali I.Al-Mosawi** and Mushtaq T.Albdiry, Improvement of flame resistance for composite material consist of phenol formaldehyde resin reinforced by carbon fibers by using flame retardant material layer, *Journal of Kerbala University*, Vol.6, No.1, 2008, pp. 226–231. <https://doi.org/10.6084/m9.figshare.12573917>
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7. Abbas A.Al-Jeebory, **Ali I.Al-Mosawi**, and Kareem D.Jaseem, Improving thermal resistance for composite material reinforced by fibers by using flame retardant material layer, *Al-Qadisiyah Journal for Engineering Sciences*, Vol.2, No.2, 2009, pp. 42–50.
8. Abbas A.Al-Jeebory, **Ali I.Al-Mosawi**, Mechanical properties of araldite matrix composites reinforced with hybrid carbon - kevlar fibers, *Al-Qadisiyah Journal for Engineering Sciences*, Vol.3, No.1, 2010, pp. 44–50.
9. **Ali I.Al-Mosawi** and Ali J.Salaman, Study the effect of reinforcing fibers on some mechanical properties of advanced composite materials, *Al-Qadisiyah Journal for Engineering Sciences*, Vol.3, No.4, 2010, pp. 163–169.
10. **Ali I.Al-Mosawi**, Study the effect of antimony tetroxide addition on thermal conductivity for araldite resin reinforced by biaxial glass fibers, *Al-Taqani Journal*, Vol.23, No.4, 2010, pp. 45–52.
11. **Ali I.Al-Mosawi**, Kahtan K.Al-Khazraji, and Jaleel K.Al-Kafaji, Study the effect of antimony trioxide on flame retardancy of polymeric composite material, *Journal of University of Babylon* , Vol.18, No.5, 2010, pp. 2113–2120.
12. **Ali I.Al-Mosawi**, Hybrid fire retardants to increasing combusting resistance for fibers-reinforced composites, *Iraqi National Journal Of Chemistry*, 41, 2011, pp. 48–54. <https://doi.org/10.6084/m9.figshare.13550177>

13. **Ali I.Al-Mosawi**, Reducing of flammability for polymeric composite material by using flame retardants coating, *Eng. & Tech. Journal*, Vol.29, No.11, 2011, pp. 2210–2215.
14. Mushtaq T.Albdiry and **Ali I.Al-Mosawi**, Effect of compacting pressure on microstructure and mechanical properties of carbide cutting tools, *Powder Metallurgy*, Vol.54, Issue.5, 2011, pp. 585–592. <https://doi.org/10.1179/1743290110y.0000000001>
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17. **Ali I.Al-Mosawi**, Reinforcing by hybrid fibers and its effect on thermal conducting for polymeric composite material, *Al-Qadisiya Journal for Engineering Sciences*, Vol.4, No.2, 2011, pp. 1–8.
18. **Ali I.Al-Mosawi**, Kahtan K.Al-Khazraji, and Jaleel K.Al-Kafaji, Effect of zinc borate addition on thermal erosion resistance of antimony trioxide, *Journal of University of Babylon* , Vol.19, No.3, 2011, pp. 1225–1231.
19. **Ali I.Al-Mosawi**, Effect of reinforcing by MgO particles on thermal and mechanical characteristics of epoxy resin, *The Iraqi Journal for Mechanical and Material Engineering*, Vol.11, No.3, 2011, pp. 560–570.
20. **Ali I.Al-Mosawi** and Faez J.Kadhim, Effect of reinforcing by different percentage of fibers on mechanical properties of vinyl ester resin, *Al-Taqani Journal*, Vol.24, No.3, 2011, pp. 1–7.
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23. **Ali I.Al-Mosawi**, Ali J.Salaman, and Abdullah F.Abdulsadah, Study the effect of volume fraction on thermal conductivity values for polyester particles composites, *Journal of Kufaphysics*, Vol.4, No.1, 2011, pp. 29–34.
24. **Ali I.Al-Mosawi**, Zuher H.Abdullah, and Sammara A.Al-Qurashi, Using of conjunction analysis to study the effect of heat treatments on mechanical properties of low chromium steel, *Journal of University of Babylon* , Vol.20, No.1, 2012, pp. 381–387.
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26. Mohammed H.Al-Maamori, **Ali I.Al-Mosawi**, and Asad Fasal, Effect of adding shells powder on rheological properties of natural rubber, *Iraqi Journal of Polymers*, Vol.16, No.1, 2012, pp. 71–74.
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28. **Ali I.Al-Mosawi**, Abed, A.A.S., Mushtaq T.Albdiry and Tareq Majeed, Experimental investigation in zinc borate effect on flammability characteristics of polymeric composite material, *Academic Research International*, Vol.3, No.2, 2012, pp. 70–74.
29. **Ali I.Al-Mosawi**, Jaleel K.Ahmed, Ali R.Yousif, and Ali J.Salaman, Flammability of araldite based composite mixed with inorganic retardants, *International Journal of Engineering Science and Technology (IJEST)*, Vol.4, No.10, 2012, pp. 4490–4493.

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34. Muslim M.Ali, **Ali I.Al-Mosawi**, Jabbar H.Mohammed, and Ali R.Yousif, Study the effect of angle dorsiflexion on bending stress of prosthetic pylon, *International Journal of Engineering Science and Technology (IJEST)*, Vol.4, No.12, 2012, pp. 4818–4835.
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65. Mohammed H.Al-Maamori, **Ali I.Al-Mosawi**, and Haider A. Yasser, Mechanical behavior of NBR-PVC mixture after immersion in different media, *International Journal of Advanced Research in Engineering and Technology (IJARET)*, Vol.5, Issue.6, 2014, pp. 34–39.
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25. 5<sup>th</sup> International scientific conference, College of Basic Education, University of Babylon, Iraq, 13-14 November 2012.
26. National conference of physics, University of Babylon, Iraq, 7-8 December 2012.
27. 3<sup>rd</sup> scientific conference, engineering College, Tikket University, Iraq , 11-12 December 2012 .
28. 1<sup>st</sup> National conference for chemistry, Science College of women, University of Baghdad, Iraq, 19-20 December 2012.
29. 14<sup>th</sup> scientific conference, Al-Mamon University College, Baghdad,Iraq ,24 April 2012.
30. 3<sup>rd</sup> Scientific international conference, Technical College-Najaf, Iraq, 20-21 February 2013.
31. 4<sup>th</sup> Scientific conference, College of Education, Thi-Qar University, Iraq, 27-28 March 2013.
32. 9<sup>th</sup> Scientific conference of mathematics and computer science ,science College ,University of Mustansiriyah ,Iraq ,6-7 May 2013.
33. 2<sup>nd</sup> International scientific conference, materials engineering College, University of Babylon, Iraq, 15-16 May 2013.
34. 5<sup>th</sup> International conference of environmental science, environmental research center, University of Babylon, Iraq, 3-5 December 2013.
35. 2<sup>nd</sup> Scientific conference, science College, University of Kerbala, Iraq, 26-27 February 2014.
36. 1<sup>st</sup> National conference for engineering, Engineering College, University of Mustansiriyah, Iraq, 26-27 March 2014.
37. 1<sup>st</sup> Basrah International conference for mechanical engineering (BICME2014), Engineering College, University of Basrah, Iraq, 8-10 April 2014.
38. 1<sup>st</sup> International conference on laser applications and advanced materials (ICLAAM), University of Technology, Iraq ,16-18 December, 2014.

39. 3<sup>rd</sup> International scientific conference, Materials engineering College, University of Babylon, Iraq, 20-21 May 2015.
40. International conference of engineering science and technology (ICEST2015), engineering College, Thi-Qar University, Iraq, 4-6 October 2015.
41. The 2<sup>nd</sup> National conference of chemistry, Science College of women, University of Baghdad, Iraq, 20-21 December 2015.
42. Babylon 1<sup>st</sup> International engineering conference, Engineering College, University of Babylon , Iraq , 22-23 December 2015 .
43. 2<sup>nd</sup> International Conference for Science &Arts, University of Babylon, Iraq, 7-8 March, 2018.

## Participation in International Conferences

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1. 3<sup>rd</sup> International Conference on Software Technology and Engineering (ICSTE 2011) , Kuala Lumpur, Malaysia ,2011.
2. International Conference on Optimization of Mechanical Engineering, Manufacturing Systems, Robotics and Aerospace (OPTIROB 2012) ,Romania ,2012 .
3. International Conference on Civil Engineering and Materials (ICCEM 2012) , Paris, France ,2012.
4. The sixth Jordan international chemical engineering conference , Amman , Jordan ,2012 .
5. International Conference on advances in Manufacturing Technology (ICAMT 2012) ,India ,2012 .
6. 2<sup>nd</sup> International Science Congress (ISC 2012) ,India ,2012 .
7. AL-Azhar engineering twelfth international conference (AEIC2012),Cairo, Egypt ,2012 .
8. 3<sup>rd</sup> International Science Congress (ISC 2013) ,India ,2013 .
9. 6<sup>th</sup> International Conference on Industrial Engineering and Operations Management (IEOM2016 KL), Kuala Lumpur, Malaysia, March 8-10, 2016.
10. 2<sup>nd</sup> International conference on innovative trends in Engineering, Science and Management (ICITESM-16),YMCA , Jai Singh Road, Delhi, India, November 19, 2016.
11. International Conference on Advanced Trends in Engineering (ICATE2017), Sponsored by The Indian Society for Technical Education (ISTE) (DMCE) Datta Meghe College of Engineering, Airoli, Navi Mumbai, Affiliated to Mumbai University, Maharashtra, India, April 7-8, 2017.
12. 6<sup>th</sup> International Conference on Carpathian Euroregion Ecology (CERECO '2017), Beregovo, Transcarpathia, Ukraine, March 30-April 1, 2017.
13. XX. Tavaszi Szél Konferencia, Doktoranduszok Országos Szövetsége with Miskolci Egyetem, Miskolc ,Hungary, March 31-April 2, 2017.
14. 7<sup>th</sup> International Conference on Industrial Engineering and Operations Management (IEOM Rabat), Rabat, Morocco, April 11-13, 2017.
15. MultiScience - XXXI. microCAD International Multidisciplinary Scientific Conference, University of Miskolc, Miskolc ,Hungary, April 20-21, 2017.
16. International Scientific Conference for Ph.D. students of EU countries (CER 2017), London, UK, October 30-31, 2017.
17. International Masaryk Conference for Ph.D. Students and Young Researchers (MMK 2017), Czech Republic, December 18 - 20, 2017.
41. MultiScience - XXXII. microCAD International Multidisciplinary Scientific Conference, University of Miskolc, Hungary, September 5-6, 2018.



42. The 22<sup>th</sup> edition of Innovative Manufacturing Engineering & Energy International Conference (IManEE 2018), Chisinau, Republic of Moldova, May 31-June 2, 2018.
43. 3<sup>rd</sup> North American International Conference on Industrial Engineering and Operations Management (IEOM Washington DC), Washington DC, USA, September 27-29, 2018.
44. 5<sup>th</sup> International Conference on Competitive Materials and Technology Processes (ic-cmp5), Miskolc-Lillafüred, Hungary, October 8-12, 2018.
45. 1<sup>st</sup> European Conference on Silicon and Silica Based Materials (ec-siliconf1), Miskolc-Lillafüred, Hungary, October 7-11, 2019.
46. 4th International Conference on Rheology and Modeling of Materials (ic-rmm4), Miskolc-Lillafüred, Hungary, October 7-11, 2019.

## Honor and Awards

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1. Holds an honored president of technical education foundation in the foundation day , 2010
2. Holds a shield of 1<sup>st</sup> scientific conference, materials engineering College, University of Babylon , Iraq ,28-29 Dec 2010.
3. Holds an honored president of technical education foundation in the foundation day , 2011
4. Holds an honored president technical education to complete the educational bag for material manufacturing processes ,2011
5. Holds the honor Dean Technical Institute of Babylon to win the creators Competition at the Institute ,27 September 2011
6. Holds an honored president of technical education foundation in the foundation day , 2012
7. Holds the honor of the Minister of Higher Education and Scientific Research in Science Day ,15 April 2012
8. Holds an honored president of technical education foundation in the foundation day , 2013
9. Higher education award for science ,2013
10. Holds an honored president of technical education foundation in the foundation day , 2014

## Courses

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1. Programming and operating CNC cutting machines, Technical Institute of Babylon / Department of Mechanics, 2008.
2. The use of nontraditional cutting in metal working, Technical Institute of Babylon / Department of Mechanics, 2008.
3. Statistical quality control, technical institute Babylon / Department of Mechanics, 2009.
4. Ideal methods for activating the role of associate within the University, Technical Institute of Babylon,2009.
5. Initial session in MATLAB, Technical Institute of Babylon / Department of electronics ,2011.
6. Educational bags concept, Technical Institute of Babylon / unit of University performance ,2011.
7. Casting techniques, Technical Institute of Babylon / Department of Mechanics, 2011.
8. Welding techniques, Technical Institute of Babylon / Department of Mechanics, 2012.
9. Bodies of cars, Technical Institute of Babylon / department of machines and equipment ,2012.

10. Advanced course in English, Technical Institute of Babylon / department of machines and equipment ,2012.
11. Initial session in the Russian language, Technical Institute of Babylon / Department of machines and equipment , 2013.
12. Maintenance and operation of pumps and determine the causes of repair systems, Technical Institute of Babylon / department of electronics ,2013.
13. Commodity and linear Regulation of spinning machines, Technical Institute of Babylon / Department of machines and equipment ,2013.
14. Course in Materials Engineering, Technical Institute of Babylon / Department of machines and equipment ,2013.
15. Economic Cost-Benefit study and projects evaluation, Technical Institute of Babylon / Department of machines and equipment ,2013.
16. Session in English Conversation, Technical Institute of Babylon / Department of machines and equipment ,2013.
17. Projects management system, Technical Institute of Babylon / Department of machines and equipment ,2013.
18. Scientific methods in textile industry, Technical Institute of Babylon / Department of machines and equipment ,2014.
19. Mechanical Machining Operations, Technical Institute of Babylon / Department of machines and equipment ,2014.
20. Preparation of Economic Cost-Benefit studies for development projects, Technical Institute of Babylon / department machinery and equipment ,2014.

## Seminars and Symposiums

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1. Carbide cutting tools - properties, how manufactured, Technical Institute of Babylon , 2007.
2. Possibility of machining of composite materials, Technical Institute - of Babylon , 2008.
3. Study the use of CNC machines in the operation of Engineering Materials, Technical Institute of Babylon, 2008.
4. Study the effect of the mechanical properties of composite materials and their impact on the use of these materials in the industry, Technical Institute of Babylon , 2009.
5. Flame Retardants - types ,mechanism of action, Technical Institute of Babylon , 2009.
6. Use of advanced composite materials in space applications, Technical Institute of Babylon ,2010.
7. Possibility of using natural fibers for the manufacture of composite material panels, Technical Institute of Babylon ,2011.
8. Introduction to Cryogenic Materials, Technical Institute of Babylon ,2011.
9. 2<sup>nd</sup> Symposium for Sustainable Engineering, Engineering College, University of Babylon, 2013.
10. 3<sup>rd</sup> Symposium for Sustainable Engineering, Engineering College, University of Babylon, 2014.