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Qualification

Year	Degree	Name of the University	Field of study
June 2019	PhD	Harbin Engineering University, Harbin, China	Material Sciences and Engineering
March 2014	ME	Mehran University of Engineering and Technology, Jamshoro	Chemical Engineering
Dec. 2008	BE	Mehran University of Engineering and Technology, Jamshoro	Chemical Engineering

Publications in HEC Recognized journals

➢ **Published in 2022**

1. Wang T, Wang ZL, **Dayo AQ**, Shi CY, Liu HB, Pan ZC, Gorar AA, Wang J, Zhou H, Liu WB, *Synthesis and properties of a novel autocatalytic phthalonitrile monomer and its copolymerization with multi-functional fluorene-based benzoxazine monomers*, Journal of Applied Polymer Science, (2022).
2. Wang T, **Dayo AQ**, Wang ZL, Lu HM, Shi CY, Pan ZC, Wang J, Zhou H, Liu WB. *Novel self-promoted phthalonitrile monomer with siloxane segments: Synthesis, curing kinetics, and thermal properties*. New Journal of Chemistry. (2022)
3. Wang Z, Li R, Qin Q, Al Hassan M, **Dayo AQ**, Liu W, Wang J. *Curing kinetics and mechanical properties of cyanate ester/hyperbranched benzoxazine copolymers*. Polymers for Advanced Technologies. (2022)
4. Kiran S, Gorar AA, Wang T, **Dayo AQ**, Zhang LL, Wang J, Shah AH, Sami SK, Liu WB. *Effects of hollow glass microspheres on the polybenzoxazine thermosets: Mechanical, thermal, heat insulation, and morphological properties*, Journal of Applied Polymer Science, 139(7), 51643, (2022).

➢ **Published in 2021**

5. Wang T, Shi CY, **Dayo AQ**, Guo ZY, Wang J, Wang Y, Gorar AA, Qiu J, Liu WB. *Synthesis and properties of novel self-catalytic phthalonitrile monomers with aliphatic chain and their copolymerization with multi-functional fluorene-based benzoxazine monomers*, European Polymer Journal, 161, 110862, (2021).
6. He XY, Wang T, Pan ZC, **Dayo AQ**, Wang J, Liu WB. *Curing characteristics, kinetics, and thermal properties of multifunctional fluorene benzoxazines containing hydroxyl groups*, Journal of Applied Polymer Science, 138(13), 50131, (2021).
7. Wang T, He XY, Zhang LL, **Dayo AQ**, Wang J, Liu WB. *Synthesis, curing characteristics, and kinetics of tetra-functional fluorene-based benzoxazines having saturated aliphatic groups*, Materials Today

Communications, 26, 101788, (2021).

8. Wang H, **Dayo AQ**, Wang J, Wang JY, Liu WB. *Trifunctional quinoxaline-based maleimide and its polymer alloys with benzoxazine: Synthesis, characterization, and properties*, Journal of Applied Polymer Science, 138(3), 49694, (2021).
9. Nawaz IR, Wang T, Gorar AA, Soomro AG, Sami SK, Shah AH, Wang J, Liu WB, Sultan SH, Babar AA, **Dayo AQ**. *Pinecone particles filled polybenzoxazine composites: Thermomechanical and mechanical properties*, Journal of Applied Polymer Science, 138(43), 51279, (2021).
10. Wang T, Guo ZY, Wang JY, **Dayo AQ**, Liu WB, Wang J. *Modification of traditional benzoxazine by blending with polyfunctional benzoxazines containing aromatic group and fluorene group*. High Performance Polymers. 33(6), 615-22, (2021).

➢ **Published in 2020**

11. **Dayo AQ,** Babar AA, Qin Q-r, Kiran S, Wang J, Shah AH, Zegaoui A, Ghouti H, Liu W-b, *Effects of accelerated weathering on the mechanical properties of hemp fibre/ polybenzoxazine based green composites*, Composites Part A: Applied Science and Manufacturing, 128, 105653, (2020).
12. **Dayo AQ,** Zhang L-l, Wang J, Liu W-b, Kiran S, Zegaoui A, Ghouti HA, Arse YB, *Study of gamma-ray radiation effects on series of bisphthalonitrile resins: Thermomechanical, mechanical, and thermal properties*, Journal of Applied Polymer Science, 137(4),48313, (2020).
13. Wang H, **Dayo AQ**, Wang J, Wang J-Y, Liu W-b, *Synthesis, curing kinetics and thermal properties of two novel quinoxaline-based mono and bismaleimides*, Thermochimica Acta, 689, 178629, (2020).
14. Wang H, **Dayo AQ**, Wang J, Wang J-Y, Liu W-b, *Trifunctional quinoxaline-based maleimide and its polymer alloys with benzoxazine: Synthesis, characterization, and properties*, Journal of Applied Polymer Science, 138, 49694, (2020).
15. Wang T, Wang Z, Pan Z-c, **Dayo AQ**, Liu W-b, Wang J, *Synthesis of novel allylamine-fluorene based benzoxazine and its copolymerization with typical benzoxazine: Curing behavior and thermal properties*, New Journal of Chemistry, 44 (43), 18917-18928, (2020).
16. Chand K, Cao D-X, Fouad DE, Shah AH, **Dayo AQ**, Zhu K, Lakhan MN, Mehdi G, Dong S, *Green synthesis, characterization and photocatalytic application of silver nanoparticles synthesized by various plant extracts*, Arabian Journal of Chemistry, 13 (11), 8248-8261 (2020).
17. Chand K, Cao D, Fouad DE, Shah AH, Lakhan MN, **Dayo AQ**, Sagar HJ, Zhu K, Mohamed AMA, *Photocatalytic and antimicrobial activity of biosynthesized silver and titanium dioxide nanoparticles: A comparative study*, Journal of Molecular Liquids, 316, 113821, (2020).
18. Zegaoui A, Derradji M, Medjahed A, Ghouti HA, Cai W-A, Liu W-b, **Dayo AQ**, Wang J, Liu Y-G, *Exploring the hybrid effects of short glass/basalt fibers on the mechanical, thermal and gamma-radiation shielding properties of DCBA/BA-a resin composites*, Polymer-Plastics Technology and Materials, 59(3), 311, (2020).
19. Zu L-W, Li J-D, Gao B-C, Pan Z-C, Wang J, Liu W-b, Zegaoui A, **Dayo AQ**, *Studies on the curing behavior, thermal, and mechanical properties of epoxy resin-co-amine-functionalized lead phthalocyanine*, Journal of Applied Polymer Science, 137, 48983, (2020).

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20. **Dayo AQ**, Ullah S, Kiran S, Wang J, Shah AH, Zegaoui A, Arse YB, Liu W-b, *Tensile and water absorption behaviour of polybenzoxazine/hemp fibres composites: Experimental analysis and theoretical validation*, Digest Journal of Nanomaterials and Biostructures, 14(1), 231-241, (2019).
21. Chen YP, **Dayo AQ**, Zhang HY, Wang A-r, Wang J, Liu W-b, Yang Y, Qin QR, Yang YG, *Synthesis of cardanol based phthalonitrile monomer and its copolymerization with phenol-aniline based benzoxazine*, Journal of Applied Polymer Science, 136(20), 47505, (2019).
22. Chen YP, He X-y, **Dayo AQ**, Wang J-y, Wang J, Liu W-b, Tang T, *Synthesis and characterization of cardanol containing tetra-functional fluorene-based benzoxazine resin having two different oxazine ring structures*, Polymer, 179, 121620, (2019).
23. Wang T, He X-Y, **Dayo AQ**, Wang J-Y, Wang J, Liu W-b, *Synthesis of novel multi-functional fluorene-based benzoxazine resins: Polymerization behaviour, curing kinetics, and thermal*

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24. Zegaoui A, Derradji M, **Dayo AQ,** Medjahed A, Zhang H-y, Cai W-a, Liu W-b, Ma R-k, Wang J, *High-performance polymer composites with enhanced mechanical and thermal properties from cyanate ester/benzoxazine resin and short Kevlar/glass hybrid fibers*, High Performance Polymers, 31(6),719-32, (2019).

25. Derradji M, Zegaoui A, Medjahed A, **Dayo AQ**, Wang J, Arse YB, Liu W-b, Liu Y-G, *Cost effective surface-modified basalt fibers-reinforced phthalonitrile composites with improved mechanical properties and advanced nuclear shielding efficiency*, Polymer Composites, 40(1), 912-919, (2019).

26. Shah AH, Li X, Xu XD, **Dayo AQ**, Liu W-b, Bai JW, Wang J, *Evaluation of mechanical and thermal properties of modified epoxy resin by using acacia catechu particles*, Materials Chemistry and Physics, 225, 239-46 (2019).

27. Cai, W-a, Zegaoui A, Zhang L-l, **Dayo AQ**, Ghouti HA, Wang J, Liu W-b, Tang T, *One-pot synthesis, characterization and polymerization of hyperbranched benzoxazine resins derived from A2+ B3 monomers*, Materials Today Communications, 21, 100638, (2019).

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38. **Dayo AQ,** Wang A-r, Kiran S, Wang J, Qureshi K, Xu Y-l, Zegaoui A, Derradji A, Babar AA, Liu

W-b, *Impacts of hemp fiber diameter on mechanical and water uptake properties of polybenzoxazine composites,* Industrial Crops and Products, 111, 277-284, (2018).

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44. Xu Y-l, **Dayo AQ**, Wang J, Wang A-r, Lv D, Zegaoui A, Derradji M, Liu W-b, *Mechanical and thermal properties of a room temperature curing epoxy resin and related hemp fibers reinforced composites using a novel in-situ generated curing agent*, Materials Chemistry and Physics, 203, 293-301, (2018).
45. Zegaoui A, Ma R-k, **Dayo AQ**, Derradji M, Wang J, Liu W-b, Xu Y-l, Cai W-a, *Morphological, mechanical and thermal properties of cyanate ester/benzoxazine resin composites reinforced by silane treated natural hemp fibers,* Chinese Journal of Chemical Engineering 26, 1219-1228, (2018).
46. Derradji M, Henniche A, Wang J, **Dayo AQ**, Ouyang J-h, Liu W-b, Medjahed A, *High performance nanocomposites from Ti_3SiC_2 MAX phase and phthalonitrile resin,* Polymer Composites, 39(10), 3705-3711, (2018).
47. Shah AH, Zhang Y, Xu X, **Dayo AQ**, Li X, Wang S, Liu W-b, *Reinforcement of stearic acid treated egg shell particles in epoxy thermosets: Structural, thermal, and mechanical characterization,* Materials, 11(10), 1872, (2018).
48. Zegaoui A, Derradji M, Medjahed A, **Dayo AQ**, Dong W, Liu W-b, Cai W-a, Wang J, Liu Y-g, *Multifunctional polymer materials with enhanced mechanical, thermal and gamma radiation shielding properties from dicyanate ester of bisphenol-A/bisphenol-A based benzoxazine resin and short kevlar/basalt hybrid fibers,* Journal of Polymer Research, 25, 250, (2018)**.**
49. Zegaoui A, Derradji M, Medjahed A, **Dayo AQ**, Wang J, Cai W-a, Liu W-b, *Tailoring the desired properties of dicyanate ester of bisphenol-A/bisphenol-A based benzoxazine resin by silane-modified acacia catechu particles,* Reactive and Functional Polymers, 131, 333-341, (2018).
50. Derradji M, Zegaoui A, Xu Y-L, Wang A-r, **Dayo AQ**, Wang J, Liu W-b, Liu Y-g, Khiari K, *Toward advanced gamma rays radiation resistance and shielding efficiency with phthalonitrile resins and composites,* Nuclear Instruments and Methods in Physics Research: B 421, 13–17, (2018).
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52. Zegaoui A, Derradji M, Ma R-k, Cai W-a, Liu W-b, Wang J, **Dayo AQ**, Song S, Zhang L-l, *High-performance polymeric materials with greatly improved mechanical and thermal properties from cyanate ester/benzoxazine resin reinforced by silane-treated basalt fibers,* Journal of Applied Polymer Science 135(21), 46283, (2018)
53. Zegaoui A, Derradji M, Ma R-k, Cai W-a, Medjahed A, Liu W-b, **Dayo AQ**, Wang J, Wang G-x, *Influence of fiber volume fractions on the performances of alkali modified hemp fibers reinforced*

cyanate ester/benzoxazine blend composites, Materials Chemistry and Physics, 123, 146-156, (2018).

54. Zegaoui A, Derradji M, Ma R-k, Cai W-a, Medjahed A, Liu W-b, **Dayo AQ**, Wang J, *Silane-modified carbon fibers reinforced cyanate ester/benzoxazine resin composites: Morphological, mechanical and thermal degradation properties,* Vacuum, 150, 12-23 (2018).

55. Zegaoui A, Derradji M, Ma R-k, Cai W-a, Medjahed A, Liu W-b, **Dayo AQ**, Wang J, Zhang L-l, Ramdani Y, *Simultaneous toughening and reinforcing of cyanate ester/benzoxazine resins with improved mechanical and thermal properties by using hyperbranched polyesters,* Journal of Polymer Engineering, 38(9),839-848 (2018).

- **Published in 2017**

56. **Dayo AQ**, Gao B-c, Wang J, Liu W-b, Derradji M, Shah AH, Babar AA, "*Natural hemp fiber reinforced polybenzoxazine composites: Curing behavior, mechanical and thermal properties",* Composites Science and Technology 144, 114-124, (2017).

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58. Derradji M, Song X, **Dayo AQ**, Wang J, W-b Liu, *"Highly filled boron nitride-phthalonitrile nanocomposites for exigent thermally conductive applications"* Applied Thermal Engineering, 115, 630–636, (2017).

59. Zegaoui A, Wang A-r, **Dayo AQ**, Tian B, W-b Liu, Wang J, Liu Y-g, *Effects of gamma irradiation on the mechanical and thermal properties of cyanate ester/benzoxazine resin,* Radiation Physics and Chemistry, 141, 110-117, (2017).

60. Nizamani AA, Ismail AR, Junin R, **Dayo AQ**, Tunio AH, Ibupoto ZH, Muhammad Sidek MA, *Synthesis of titania-bentonite nanocomposite and its applications in water-based drilling fluids,* Chemical Engineering Transactions, 56, 949-954, (2017). (EI indexed)

Paper Presented

1. Liu W-b, **Dayo AQ**, Wang J, Cai W-a, *Novel hyperbranched benzoxazine: Synthesis and properties*, 255th National Meeting and Exposition of the American Chemical Society (ACS), New Orleans, LA, USA, Mar 18-22, 2018.

2. Derradji M, **Dayo AQ**, Liu W-b, *Boron nitride reinforced phthalonitrile nanocomposites with outstanding mechanical and thermal properties,* 3rd International Conference on Mechanics of Composites, Bologna, Italy, July 2017.

3. Adnan Aftab, Abdul Haque Tunio, **Qadeer A**, Nadir Ali, *Comparison of coal-bed methane and natural gas for the solution of energy crisis,* EDD2012 Conference, Mehran UET Jamshoro, February 2012.

Work Experience

S. No	From	To	Name of the Institution/ Organization	Position held
1	Dec, 2021	To date	BUITEMS, Quetta	Associate Professor
2	Jul, 2014	Dec, 2021	BUITEMS, Quetta	Assistant Professor
3	Nov 2009	Jul, 2014	BUITEMS, Quetta	Lecturer
4	Dec 2008	Nov 2009	Matol Pvt. Limited Pakistan	Trainee Process Engineer
Area of specialization			Materials Sciences and Engineering, Chemical Engineering	
Expertise			Monomer Synthesis, Copolymerization, and Polymer composites	
HEC Approved supervisor			Yes	

If Yes, provide HEC URL	https://hec.gov.pk/english/scholarshipsgrants/ASA/Pages/APS-EPORTAL.aspx

Additional Information

- Member of Pakistan Engineering Council (PEC) CHEM/7505
- Member of Mehran University Chemical Engineering Society (MUCES)
- Associate Member Pakistan Institute of Chemical Engineers (PIChE)
- Outstanding Graduate 2019, Harbin Engineering University, Harbin
- Hei Longjiang Province Outstanding Student 2019
- Excellent Academic Performance Award-2018, Harbin Engineering University, Harbin
- Excellent Academic Performance Award-2017, Harbin Engineering University, Harbin