Mohammad Bakherad

Faculty of Chemistry, Shahrood University of Technology, Shahrood, IRAN

Biography: Mohammad Bakherad was born in 1969 in Mashhad, Iran. He received his B.Sc. degree from the Isfahan University in 1992 and his M.Sc. and Ph.D. degrees from Ferdowsi University of Mashhad Iran in 1995 and 2002. He completed his doctoral thesis under supervision of Majid. M. Heravi and Mohammad Rahimizadeh in Ferdowsi University of Mashhad. He started his career as an assistant professor to Shahrood University of Technology, Iran. His research interests focus on heterocyclic chemistry, catalysis and organic methodology.

Position:

Professor of Organic Chemistry, From Feb 2013.

Associate Professor of Organic Chemistry, From January 2008.

Assistant Professor of Organic Chemistry, From July 2003.

Education:

Bsc: 1988-1992, Chemistry, Department of Chemistry, Isfahan University, Isfahan, IRAN.

Msc: 1993-1996, Organic Chemistry, Department of Chemistry, Ferdowsi University of Mashhad, Mashhad, IRAN.

PhD: 1996-2002, Organic Chemistry, Department of Chemistry, Ferdowsi University of Mashhad, Mashhad, IRAN.

Research Experience

1- Organic Synthesis.

2- Heterocyclic Compounds.

3- Organometallic Reagents.

ARTICLES:

1. Solid Acid Induced Cyclocondensation: A Facile, One-Pot Synthesis of 7H-1,2,4]triazolo[3,4-b][1,3,4]thiadiazines. Majid M. Heravi, **Mohammad Bakherad**, Mohammad Rahimzadeh, Mehdi Bakavoli,*Phosphorus, Sulfur, and Silicon and the Related Elements*, **2002**, *177*,

2. A Novel Synthetic Route to New 2-Aryl-6-methyl[1,3,5]triazino[1,2-d] [1,3,4]thiadiazine-4,7(6H,9H)-dithiones. Mehdi Bakavoli, **Mohammad Bakherad,** Mohammad Rahimizadeh,Majid M. Heravi, *Phosphorus, Sulfur, and Silicon and the Related Elements*, **2003**, *178*, 1157.

3. Synthesis of novel heterocyclic system [1,2,4] triazolo [4,3,a] pyrimido [4,5-e] [1,3,4] thiadiazines. Majid M. Heravi, **Mohammad Bakherad**, Mohammad Rahimzadeh, Mehdi Bakavoli, Mitra Ghassemzadeh, *Heterocyclic Communications*, **2004**, *10*, 335.

4. Synthesis of a Novel Heterocyclic System, [1,2,4] Triazino[1,2-*a*]Pyrimido [4,5-*e*] [1,3,4] Thiadiazines. Majid M. Heravi, **Mohammad Bakherad**, Mohammad Rahimzadeh, Mehdi Bakavoli, Mitra Ghassemzadeh, *Phosphorus, Sulfur, and Silicon and the Related Elements*, **2005**, *180*, 2477.

5. Synthesis of a Novel Heterocyclic Ring System: 4-substituted-1- thioxo [1,2,4,5]tetraazino[1,2-b]phtalazine-6,11-dione. Amir H. Amin, **Mohammad Bakherad,** *Heterocyclic Communications*, **2007**, *13*, 311

6. Synthesis of a novel heterocyclic ring system: imidazo[3,2-*d*][1,2,4] triazolo[3,4-*b*][1,3,4]thiadiazine. **Mohammad Bakherad**, Vahid Keley and Amir H. Amin, *Journal of Chemical Research*, **2008**, 633.

7. Synthesis of 2-benzylimidazo[2,1-b][1,3]benzothiazoles through palladium-catalyzed heteroannulation of acetylenic compounds. **Mohammad Bakherad,**, Hossein Nasr-Isfahani, Ali Keivanloo,Golnaz Sang, *Tetrahedron Letters*, **2008**, *49*, 6188.

8. Pd–Cu catalyzed heterocyclization during Sonogashira coupling: synthesis of 2-

benzylimidazo[1,2-a]pyridine. **Mohammad Bakherad**, Hossein Nasr-Isfahani, Ali Keivanloo, Nesa Doostmohammadi, *Tetrahedron Letters*, **2008**, *49*, 3819

9. Polystyrene-supported palladium(II) ethylenediamine complex: a recyclable catalyst for the syntheses of 2-benzylimidazo[2,1-*b*][1,3] benzothiazoles by Sonogashira reaction. **Mohammad Bakherad**, Bahram Bahramian, Hossein Nasr-Isfahani, Ali Keivanloo, and Golnaz Sang, *Chinese Journal of Chemistry*, **2009**, *27*, 353.

10. Synthesis of novel 6-(substituted benzyl)imidazo[2,1-*b*][1,3]thiazole catalyzed by the polystyrene-Supported palladium(II) ethylenediamine complex. **Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Taghi A. Kamali, *Journal of The Brazilian Chemical Society*, **2009**, *20*, 907.

11. Polystyrene-Supported Palladium(II) Ethylenediamine Complex: A Highly Active and Recyclable Catalyst for the Synthesis of 2-Benzylimidazo[2,1-b]pyridines Through Heteroannulation of Acetylenic Compounds. **Mohammad Bakherad**, Bahram Bahramian, Hossein Nasr-Isfahani, Ali Keivanloo, and Nesa Doostmohammadi, *Journal of Heterocyclic Chemistry*, **2009**, *46*, 100.

12. One-pot Synthesis of 2-Substituted Imidazo[2,1-*b*][1,3]benzothiazoles *via* Coupling-Cyclization Under Pd-Cu Catalysis in Water. **Mohammad Bakherad,** Ali Keivanloo and Mahdieh Hashemi, *Letters in Organic Chemistry*, **2009**, *6*, *165*.

13. Pd-Cu-Mediated Synthesis of 2-Substituted Imidazo[1,2-a]pyridines in Water. **Mohammad Bakherad**, Ali Keivanloo, and Mahdieh Hashemi, *Synthetic Communications*, **2009**, *39*, 1002.

14. Synthesis of 6-substituted imidazo[2,1-b]thiazoles via Pd/Cu-mediated Sonogashira coupling in water. Taghi A. Kamali, **Mohammad Bakherad**, Mahmoud Nasrollahzadeh, Shiva Farhangi, Davood Habibi, *Tetrahedron Letters*, **2009**, *50*, 5459.

15. A diphenylphosphinoethane-functionalized polystyrene resin-supported Pd(0) complex as an effective catalyst for copper-free Sonogashira coupling reactions under aerobic conditions. Mohammad Bakherad *, Ali Keivanloo, Bahram Bahramian, Samira Mihanparast, *Tetrahedron Letters*, **2009**, *50*, 6418.

16. Copper-free Sonogashira coupling reactions catalyzed by a water-soluble Pd-salen complexunder aerobic conditions. **Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Mahdieh Hashemi, *Tetrahedron Letters*, **2009**, *50*, 1557.

17. Synthesis of unexpected pyrrolo[2,3-b]quinoxaline-2-carbaldehydes via sonogashira coupling reaction. Ali Keivanloo, **Mohammad Bakherad**, Amin Rahimi, Synthesis **2010**, 10, 1599.

18. Using Pd–salen complex as an efficient catalyst for the copper- and solvent-free coupling of acyl chlorides with terminal alkynes under aerobic conditions. **Mohammad Bakherad**, Amir Hossein Amin, Ali Keivanloo, Bahram Bahramian, Mersad Raessi, Chinese Chemical Letters **2010**, 21, 656.

19. One-pot synthesis of 1,2-disubstituted pyrrolo[2,3-b]quinoxalines via palladium-catalyzed heteroannulation in water.Ali Keivanloo, **Mohammad Bakherad**, Amin Rahimi, Sayed Ali Naghi Taheri, *Tetrahedron Letters*, **2010**, *51*, 2409.

20. Copper- and phosphine-free Sonogashira coupling reactions of aryl iodides catalyzed by an N,N-bis(naphthylideneimino)diethylenetriaminefunctionalized polystyrene resin supported Pd(II) complex underaerobic conditions**. Mohammad Bakherad** Amir H. Amin, Ali Keivanloo, Bahram Bahramian, Mersad Raeissi, *Tetrahedron Letters*, **2010**, 51, 5653.

21. Copper- and solvent-free Sonogashira coupling reactions of aryl halides with terminal alkynes catalyzed by 1-phenyl-1,2-propanedione-2-oxime thiosemi-carbazone-functionalized polystyrene resin supported Pd(II) complex under aerobic conditions. **Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Saeedeh Jajarmi**,** *Applied Catalysis A: General* **2010**, *390*, 135.

22. Nickel-catalyzed alkynylation of aryl iodides (Sonogashira reaction) in water. **Mohammad Bakherad**, Ali Keivanloo, Samira Mihanparast, *Synthetic Communications*, **2010**, *40*, 179.

23. Synthesis of 6-benzylimidazo[2,1-*b*][1,3]thiazole during Sonogashira coupling. **Mohammad Bakherad,** Ali Keivanloo, Mahmood Tajbakhsh, Taghi A. Kamali, *Synthetic Communications*, **2010**, *40*,173.

24. A copper- and solvent-free coupling of acid chlorides with terminal alkynes catalyzed by a polystyrene-supported palladium(0) complex under aerobic conditions. **Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Mahbobeh Rajaie, *Tetrahedron Letters*, **2010**, *51*, 33.

25. Polystyrene-Supported Zinc Bromide–Ethylenediamine Complex as a Reusable and Highly Efficient Heterogeneous Catalyst for the Synthesis of a,b-Acetylenic Ketones. A. Keivanloo, M. Bakherad, B. Bahramian, M. Rahmani, S. A. N. Taheri, *Synthesis* **2010**, *2*, 325

26. Pd/C-catalyzed heterocyclization during copper-free Sonogashira coupling: synthesis of 2-benzylimidazo[1,2-a]pyrimidines in water. **Mohammad Bakherad**, Ali Keivanloo, Zahra Kalantar, Saeideh Jajarmi, *Tetrahedron Letters*, **2011**, 52, 228.

27. The first heterogeneous Sonogashira coupling reaction of aryl halides with terminal alkynes catalyzed by diatomite-supported palladium (II) salophen complex**. Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Zohre Bakherad, Behzad Karrabi, *Applied Organometallic Chemistry***, 2011,** 25, 420.

28. Synthesis of ynones via recyclable polystyrene-supported palladium(0) complex-catalyzed acylation of terminal alkynes with acyl chlorides under copper- and solvent-free conditions. **Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Saeedeh Jajarmi**,** *Synlett* **2011,** 3, 311.

29. Syntheses of 2-benzylsubstituted imidazo[1,2-*a*]pyrimidines *via* coupling–cyclization under Pd-Cu catalysis. **Mohammad Bakherad**, Ali Keivanloo, Marzieh Mohammadi, Saeideh Jajarmi , *Letters in Organic Chemistry***, 2011**, 8, 401.

30. Regioselective Syntheses of 1-Aryl-substituted-5H-[1,3]thiazolo[3,2-a]quinazoline-5-ones During Sonogashira Coupling **Mohammad Bakherad**; Ali Keivanloo; Zahra Kalantar; Vahid Keley *Phosphorus, Sulfur, and Silicon and the Related Elements*, **2011**, *186*, 464.

31. Pd-Catalyzed Heterocyclization DuringSonogashira Coupling: Synthesis of 3-Aryl-substituted Imidazo[2,1-b]thiazoles **Mohammad Bakherad**, Ali Keivanloo, Hossein Nasr-Isfahani, and Mersad Raeissi, *Phosphorus, Sulfur, and Silicon and the Related Elements*, **2011**, *186*, 1422.

32. Silica-supported zinc bromide (ZnBr2/SiO2): a highly efficient heterogeneous catalyst for coupling acid chlorides with terminal alkynes, Ali Keivanloo , **Mohammad Bakherad**, Bahram Bahramian, Samaneh Baratnia *Tetrahedron Letters*, **2011**, 52, 1498.

33. Coupling Reaction of Acid Chlorides with Terminal Alkynes Catalyzed by Diatomite-Supported Palladium(II) Salophen Complex**, Mohammad Bakherad**, Ali Keivanloo, Bahram Bahramian, Zahra Kalantar, Faezeh N. Ashrafi, *Letters in Organic Chemistry***, 2011**, 8, 364.

34. Phosphine-free polystyrene-supported palladium(II) complex as an efficient catalyst for the Heck and Suzuki coupling reactions in water, **Mohammad Bakherad** Ali Keivanloo, Amir H. Amin, Saeideh Jajarmi, *Comptes Rendus Chimie (C.R. Chimie)* **, 2012**, 15, 945.

35. Synthesis of pyrrolo[2,3-b]quinoxalines by the Pd/C-catalyzed multicomponent reaction of 1,2-dichloroquinoxaline with hydrazine hydrate, phenylacetylene, and a variety of aldehydes in water, **Mohammad Bakherad**, Ali Keivanloo, Saeideh Jajarmi, *Tetrahedron* **2012**, 68, 2107.

36. Synthesis of 1-aryl-substituted-4-chloroimidazo[1,2-a]quinoxalines catalyzed by PdCl2 in water, **Mohammad Bakherad** , Ali Keivanloo, Shahrzad Samangooei, *Tetrahedron Letters*, **2012**, 53, 1447.

37. Solvent-free Heck and copper-free Sonogashira cross-coupling reactions catalyzed by a polystyrene-anchored Pd(II) phenyldithiocarbazate complex, **Mohammad Bakherad** , Ali Keivanloo, Shahrzad Samangooei, *Tetrahedron Letters*, **2012**, 53, 5773.

38. Highly efficient synthesis of 5,6-disubstituted-5H-pyrrolo[2,3-b]-pyrazine-2,3-dicarbonitriles through a one-pot palladium-catalyzed coupling reaction/cyclization in water, Ali Keivanloo , Mohammad Bakherad, Hossein Nasr-Isfahani, Somayeh Esmaily, *Tetrahedron Letters*, **2012**, 53, 3126.

39. Recent progress and current applications of Sonogashira coupling reaction in water, **Mohammad Bakherad** *Applied Organometallic Chemistry***, 2012**, 26, 1.

40. Regioselective Syntheses of 3-Benzyl-Substituted 7H-Thiazolo[3,2-a]pyrimidine-7-ones through Palladium-Catalyzed Heteroannulation of Acetylenic Compounds, **Mohammad Bakherad**, Farzaneh Gholipoor, *Organic Chemistry International*, **2012**,1.

41. Suzuki, Heck, and copper-free Sonogashira reactions catalyzed by 4-amino-5-methyl-3-thio-1,2,4-triazole-functionalized polystyrene resin-supported Pd(II)under aerobic conditions in water. **Mohammad Bakherad,** Ali Keivanloo, Bahram Bahramian, Saeideh Jajarmi, *Journal of Organometallic Chemistry*, **2013**, 724, 206.

42. A dithizone-functionalized polystyrene resin-supported Pd(II) complex as an effective catalyst for Suzuki, Heck, and copper-free Sonogashira reactions under aerobic conditions in water, **Mohammad Bakherad**, Saeideh Jajarmi, *Journal of Molecular Catalysis A: Chemical*, **2013**, 370, 172.

43. Pd/C-catalyzed, copper-free Sonogashira coupling: one-pot synthesis of 1-aryl-4-(2-phenylethynyl)[1,2,4]triazolo[4,3-a]-quinoxalines in water, **Mohammad Bakherad**, Saeideh Jajarmi, *Monatsh Chem*, **2013**, 144,1

44. One-pot synthesis of 4,5-disubstituted 1,2,3-(NH)-triazoles by silica supported-zinc bromide in the aerobic condition Ali Keivanloo **Mohammad Bakherad,** S. A. Taheri,Shahrzad Samangooei, *Comptes Rendus Chimie (C.R. Chimie)* **, 2013**, 16, 239.

45. Novel one-pot access to 2-formyl/acetyl-1-substituted pyrrolo[2,3-b]quinoxalines under Sonogashira reaction conditions, Ali Keivanloo **Mohammad Bakherad,** Mahrokh Rahmani Amin Rahimi, *Monatsh Chem*, **2013**, 144,859.

46. A phenyldithiocarbazate-functionalized polyvinyl chloride resinsupported Pd(II) complex as an effective catalyst for solvent- and copper-free Sonogashira reactions under aerobic conditions, **Mohammad Bakherad**, Ali Keivanloo, Shahrzad Samangooei, Mina Omidian, *Journal of Organometallic Chemistry*, **2013**, 740, 78.

47. Boehmite nanoparticles, an efficient green catalyst for the multi-component synthesis of highly substituted imidazoles, Ali Keivanloo **Mohammad Bakherad,** Elahe Imanifar, Mahdi Mirzaee, *Applied Catalysis A: General* **2013**, 467, 291

48. Synthesis and Characterization of the 2-Methylaminopyridine-functionalized Polystyrene Resin-supported Pd(II) Catalyst for the Mizoroki–Heck and Sonogashira Reactions in Water, **Mohammad Bakherad,** Amir Hosein Amin, Farzaneh Gholipoor, *J. Chinese. Chem. Soc*. **2014**, 61, 279.

49. Copper- and solvent-free Sonogashira reaction catalyzed by Polyvinyl chloride-supported palladium(II) triazole complex **MohammadBakherad**, Ali Keivanloo,Bahram Bahramian, Maesoume Siavoshi, *Letters in Organic Chemistry*, **2013**, 10, 758.

50. Three-component synthesis of imidazo[1,2-c]pyrimidines using silica sulfuric acid (SSA), **Mohammad Bakherad**, Ali Keivanloo, Masoumeh Siavashi, Mina Omidian, *Chinese Chemical Letters***, 2014**, 25, 149.

51. A novel 1,2,4-triazine-functionalized polystyrene resin-supported Pd(II) complex: a copper- and solvent-free highly efficient catalyst for Sonogashira coupling reactions, **Mohammad Bakherad**, Bahram Bahramian, Saeideh Jajarmi, *Journal of Organometallic Chemistry*, **2014**, 749, 405.

52. Poly (vinyl chloride)-supported Pd(II) complex as an efficient catalyst for Heck and Cu-free Sonogashira reactions nder aerobic conditions, **Mohammad Bakherad**,Ali Keivanloo, shahrzad samangooei, *Chinese journal of catalysis*, **2014**, 35, 324.

53. Boehmite nanoparticle catalyst for the one-pot multicomponent synthesis of 3,4-dihydropyrimidin-2-(1*H*)-ones and thiones under solvent-free conditions Ali Keivanloo Mahdi Mirzaee **Mohammad Bakherad,** Atena Soozani, *Chinese journal of catalysis*, **2014**, 35, 362.

54. Copper-Free Sonogashira Coupling Reaction Catalyzed by PVC-Supported Triazine Palladium(II) Complex Under Aerobic Conditions, Mohammad Bakherad*, Ali Keivanloo, Amene Hadi , Maesoume Siavoshi, *Asian J. Org. Chem*. **2014**, 3, 1189.

55. Electrochemical oxidation of catechol derivatives in the presence of 3-acetyldihydro-2(3H)-furanone: efficient and green method for synthesis of new butyrolactone derivatives,
Mansour Arab Chamjangali, **Mohamad Bakherad** , Mohsen Ameri, *Monatsh Chem*, **2014**, 145, 1.

56. None-catalyst and clean synthesis of symmetric and asymmetric indoles from electrochemical oxidation of 4-aminophenol and *p*-phenylenediamine in the presence of malononitrile in green media,Alireza Asghari, Mohsen Ameri, Sepideh Radmannia, Maryam Rajabi, Mohammad Bakherad, Davood Nematollahi, *Journal of Electroanalytical Chemistry*, **2014**, 733, 47.

57. Facile and one-pot, electro-organic synthesis of a new bis-quinone by the ECCE mechanism in green media, Mohsen Ameri, Alireza Asghari, Ali Amoozadeh, Mohammad Bakherad, Davood Nematollahi, *Chinese Chemical Letters*, **2014**, 25, 1607.

58. Three-component synthesis of imidazo[1,2-c]pyrimidines using silica sulfuric acid (SSA)**,** **Mohammad Bakherad**, Ali Keivanloo, Masoumeh Siavashi, Mina Omidian, *Chinese Chemical Letters* **2014**, 25, 149.

59. One-pot regioselective synthesis of 5-amino-3-benzyl-7*h*-[1,3]thiazolo[3,2-*a*]pyrimidin-7-ones viasonogashira coupling reaction, Ali Keivanloo, **Mohammad Bakherad**, Mahboobe Rajaei, *Phosphorus, Sulfur, and Silicon*, **2014**, 189, 1656.

60. Synthesis of pyrrolo[2,3-b]pyrazines through Sonogashira coupling reaction of 5,6-dichloropyrazine-2,3-dicarbonitrile with hydrazine, phenylacetylene and various aldehydes**,** **Mohammad Bakherad**, Ali Keivanloo, Mina Omidian, Shahrzad Samangooei, *Journal Chemical Research*, **2014**, 39, 762.

61. Clean and Catalyst-Less Electrosynthesis of Benzofurans via *p*-Phenylenediamine Oxidation in the Presence of Barbiturics, Alireza Asghari, Omid Ghaderi, Mohsen Ameri, Maryam Rajabi, **Mohammad Bakherad**, *Journal of The Electrochemical Society*, **2015,** 162, G14-G17.

62. An efficient, simple, non-catalytic electrosynthesis of new polycyclic benzofuran derivatives, Mohsen Ameri, Alireza Asghari, Ali Amoozadeh, **Mohammad Bakherad**, Davood Nematollahi *Tetrahedron Letters*, **2015**, 56, 2141.

63. Mechanistic investigation of the electrooxidation of catechols in the presence of *N*-methylbenzylamine at room temperature: synthesis of new quinone derivatives, Alireza Asghari, Mohsen Ameria, Behzad Baraee, Maryam Rajabi, **Mohammad Bakherad**, Ali Amoozadeh *Progress in Reaction Kinetics and Mechanism*, **2015**, 40, 77.

64. A new natural based ionic liquid 3-sulfonic acid 1-imidazolopyridinium hydrogen sulfate as an efficient catalyst for the preparation of 2H-indazolo[2,1-b]phthalazine-1,6,11(13H)-triones, Reza Tayebee, Malihe Jomei, Behrooz Maleki, MaryamKargar Razi, Hojat Veisi, *Journal of Molecular Liquids*, **2015**, 206, 119.

65. A Facile and Efficient One-Pot Electrochemical Synthesis of Thiazole Derivatives in Aqueous Solution, Mohsen Ameri, Ali Amoozadeh, Alireza Asghari, Davood Nematollahi, **Mohammad Bakherad,** *Helvetica Chimica Acta,* **2015**, 98, 210.

66. Synthesis of 3,5-disubstituted-1H-pyrazoles from acid chlorides, alkynes, and hydrazine in the presence of silica-supported-zinc bromide, Ali Keivanloo, **Mohammad Bakherad**, Shahrzad Samangooei, *Journal Chemical Research*, **2015**, 39, 484.

67. Green and one-pot electrochemical synthesis of new benzofurans based on an ECC mechanism Maryam Rajabi, Sepideh Radmannia, Mohsen Ameri, Alireza Asghari, **Mohammad Bakherad**, *Progress in Reaction Kinetics and Mechanism*, **2015**, 40, 1.

68. First Electroorganic Synthesis Based on a Metal-and Amine-Free Sonogashira-Type Coupling Reaction with an *ECECECE* Mechanism, Mohsen Ameri, Alireza Asghari, Ali Amoozadeh, **Mohammad Bakherad**, *Journal of The Electrochemical Society*, **2015,** 162, G25-G28.

69. Eggshell-supported-Cu(II) salophen complex: An efficient and green catalyst for synthesis of propargylamines under solvent-free conditions, **Mohammad Bakherad**, Ali Keivanloo, Amir Hossein Amin, Raheleh Doosti, Ommolbanin Hoseini, *Iranian Journal of Catalysis*, **2016**, 6, 325.

70. Pd-catalyzed coupling reaction of 6-hydroxy- 2-(prop-2-yn-1-ylsulfanyl)pyrimidin-4(1*H*)-one with aryl iodides: efficient syntheses of new 3-benzylthiazolo[3,2-*a*]pyrimidinones**,** Ali Keivanloo, **Mohammad Bakherad**, Taraneh Shahani, Amir Hossein Amin, *Chem. Heterocycl. Compd.* **2016**, 52, 836.

71. Efficient synthesis of novel 1,2,3-triazole-linked quinoxaline scaffold via copper-catalyzed click reactions, Ali Keivanloo, **Mohammad Bakherad**, Fateme Abbasi, Tayebeh Besharati-Seidani

and Amir Hossein Amin, *RSC Adv.*, **2016**, 6, 105433.

72. Mono- and triiodophenyl isocyanate as radiopacifying agents for methacrylate-based copolymers; biocompatibility and non-toxicity, Saeed Shiralizadeh, Hossein Nasr-Isfahani, Ali Keivanloo, **Mohammad Bakherad,** *RSC Adv.*, **2016**, 6, 110400.

73. Environmentally Friendly, One-pot, Catalyst-free, and Facile Electrochemical Synthesis of New Supra N- and O-Heterocycles, Mohsen Ameri, Alireza Asghari, Ali Amoozadeh, **Mohammad Bakherad,** *Chemistry Letters***, 2016**, 45, 1.

74. Clean and Green Synthesis of New Benzothiazole Derivatives via Electrochemical Oxidation of Catechol Derivatives, Mansour Arab Chamjangali, Hassan Daneshinejad, **Mohammad Bakherad**, Mohsen Ameri, *Croatica Chemica Acta* **2016**, 89, 7.

75. A rapid, easy, and efficient method for synthesis of 4,4'-(arylmethylene)-bis-(1H-pyrazol-5-ols), catalyzed by boehmite nanoparticles, **Mohammad Bakherad**, Ali Keivanloo, Amir H. Amin, Rahele Doosti, Zahra Aghayan, *Journal of Applied Chemistry*, **2017**, 11, 31.

76. A New, Simple, Catalyst-free Method for the Synthesis of Pyrazolopyranopyrimidines in Magnetized Water, **Mohammad Bakherad**, Rahele Doosti, Ali Keivanloo, Mostafa Gholizadeh, Amir H. Amin, *Letters in Organic Chemistry*, **2017**, 14, 510.

77. Development of an unexpected reaction pathway for the synthesis of 1,2,4-trisubstituted pyrrolo[1,2-a]quinoxalines through palladium-catalyzed cascade reactions, Ali Keivanloo, Atena Soozani, **Mohammad Bakherad**, Mahdi Mirzaee, Hadi Amiri Rudbari, Giuseppe Bruno, *Tetrahedron*, **2017**, 73, 1633

78. Palladium-free and phosphine-free Sonogashira coupling reaction of aryl halides with terminal alkynes catalyzed by boehmite nanoparticle-anchored Cu(I) diethylenetriamine complex, **Mohammad Bakherad**, Rahele Doosti, Mahdi Mirzaee, Khosrow Jadidi, Amir H. Amin, Omid Amiri, *Research on Chemical Intermediates*, 2017, 43, 7347.

79. Using magnetized water as a solvent for a green, catalyst-free, and efficient protocol for the synthesis of pyrano[2,3-c]pyrazoles and pyrano[40,30:5,6]pyrazolo[2,3-d]pyrimidines

Mohammad Bakherad, Ali Keivanloo, Mostafa Gholizadeh, Rahele Doosti, Mohaddese Javanmardi, Research on Chemical Intermediates, **2017**, 43, 1013.

80. A new approach for one-pot, green synthesis of new polycyclic indoles in aqueous solution, Mohsen Ameri, Alireza Asghari, Ali Amoozadeh, **Mohammad Bakherad**, *Chinese Chemical Letters*, **2017**, 28, 1031.

81. Synthesis of new 2-substituted pyrazolo[5,1-b][1,3]oxazoles via Sonogashira coupling reactions in water, **Mohammad Bakherad**, Rahele Doosti, Mahdi Mirzaee, Khosro Jadidi *Tetrahedron*, **2017**, 73, 3281.

82. Boehmite Silylpropyl Amine Sulfamic Acid as an Efficient and Recyclable Catalyst for the Synthesis of some Pyrazole Derivatives, Rahele Doosti, **Mohammad Bakherad***, Mahdi Mirzaee, Khosrow Jadidi, *Letters in Organic Chemistry*, **2017**, 14, 450.

83. A Highly Efficient and Green Catalytic Synthesis of 3,4-dihydro-pyrimidin-2-(1*H*)-ones (Thiones) Using 3-sulfonic Acid-1-imidazolopyridinium Hydrogen Sulfate under Solvent-free Conditions, **Mohammad Bakherad**, Mohaddeseh Javanmardi, Raheleh Doosti, Reza Tayebee *Croatica Chemica Acta* **2017**, 90, 53.

84. Synthesis of pyrazolopyranopyrimidines catalyzed by caffeine supported on boehmite nanoparticles and their evaluation for anti-bacterial activities, **Mohammad Bakherad,** Rahele Doosti, Mahdi Mirzaee, Khosrow Jadidi, *Iranian Journal of Catalysis*, **2017**, 7, 27.

85. A green, simple, catalyst‑free, and efficient method for electro‑organic synthesis of new benzofuran derivatives**,** Alireza Asghari, Anahita Gholami, **Mohammad Bakherad**, Mohsen Ameri, *Journal of the Iranian Chemical Society*, **2017**, 14, 2127.

86. A catalyst-free and green method for synthesis of 9-substituted-9*H*-diuracilopyrans in magnetized water: experimental aspects and molecular dynamics simulation, **Mohammad Bakherad**, Zainab Moosavi-Tekyeh, Ali Keivanloo, Mostafa Gholizadeh, Zahra Toozandejani, *Research on Chemical Intermediates*, **2018**, *44*, 373.

87. Rapid, green, and catalyst‐free one‐pot three‐component syntheses of 5‐substituted 1*H*‐tetrazoles in magnetized water, **Mohammad Bakherad**, Rahele Doosti, Ali Keivanloo, Mostafa Gholizadeh, Khosrow Jadidi, *Journal of Iranian Chemical Society*, **2017,** *14*, 2591.

88. Use of ligand-assisted click reactions for the rapid synthesis of novel 1,2,3-triazole pharmacophore-based 1,2,4-triazines and their benzofused analogues, Ali Keivanloo, **Mohammad Bakherad**, Mostafa Lotfi, *Tetrahedron* **2017**, *73*, 5872.

89. One-pot Synthesis of Quinoxaline Chalcones from Commercially Available Calcium Carbide Through Palladium-Catalyzed Coupling Reactions, Atena Soozani, Ali Keivanloo, **Mohammad Bakherad**, *ChemistrySelect* **2017**, *2*, 9701.

90. One-pot palladium-catalyzed synthesis of functionalized 10H-pyrido[1,2-a]quinoxalin-10-ones under copper-free conditions, Atena Soozani, Ali Keivanloo, **Mohammad Bakherad**, *Tetrahedron* **2018**, *74*, 150.

91. Preparation of radiopaque polyurethane–urea/graphene oxide nanocomposite using 4-(4-iodophenyl)-1,2,4-triazolidine-3,5-dione, Saeed Shiralizadeh, Hossein Nasr-Isfahani1, Ali Keivanloo, **Mohammad Bakherad**, Behrooz Yahyaei, Parastoo Pourali, *Journal of Materials Science*, **2018**, *53*, 9896.

92. Radiopaque nanocomposites based on biocompatible iodinated N-phenyl amide-modified methyl methacrylate/acrylic acid copolymer,Saeed Shiralizadeh, Hossein Nasr-Isfahani, Ali Keivanloo, **Mohammad Bakherad**, *Journal of Polymer Research* **2017**, *24*, 186.

93. Synthesis of New Derivatives of 1,2,3-Triazole-Linked Phthalazine-1,4-dione in Water: Experimental Aspects and Molecular Docking Calculations, **Mohammad Bakherad**, Saeed Karami, Ali Keivanloo, Saghi Sepehri, *ChemistrySelect* **2018**, *3*, 11042.

94. Synthesis of 1,4-Disubstituted 1,2,3-Triazoles via 1,3-Dipolar Cycloaddition/C–N Coupling of Propargyl Alcohols/amines and Aryl Azides, **Mohammad Bakherad**, Ahmad Kakavand Ghalenoei, Ali Keivanloo, *Journal of Heterocyclic Chemistry* **2018**, *55*, 2683.

95. Silica-anchored Cu(I) aminothiophenol complex: An efficient heterogeneous catalyst for synthesis of 1,4-disubstituted 1,2,3-triazoles in water, **Mohammad Bakherad**, Ali Keivanloo, Amir Hossein Amin, Pouya Ghamari Kargar, *Iranian Journal of Catalysis*, **2018**, 8, 179.

96. Sonogashira Reaction: Synthesis of Novel Derivatives of 3-Aryl-Substituted 6-Chloroimidazo[2, 1-a]phthalazines Catalyzed by Pd-Cu in Water, **Mohammad Bakherad**, Saeed Karami, Ali Keivanloo, *ChemistrySelect* **2018**, *3*, 2435.

97. PVC‐supported ethylenediamine‐copper(II) complex: a heterogeneous, efficient, and eco‐friendly catalyst for multi‐component synthesis of 1,2,3‐triazoles by reaction of propargyl bromide, aromatic azides, and amines in water, Ali Keivanloo, **Mohammad Bakherad**, Mina Khosrojerdi, Amir Hossein Amin, *Research on Chemical Intermediates*, **2018**, *44*, 2571.

98. Practical and efficient synthesis of tetrahydrobenzo[*b*]pyran using caffeine supported on silica as an ionic liquid solid acid catalyst, **Mohammad Bakherad**, Ali Keivanloo, Elmira Moradian, Amir H. Amin, Rahele Doosti, Mahsa Armaghan, *Journal of Iranian Chemical Society*, **2018,** *15*, 2811.

99. Metal- and catalyst-free, one-pot, three-component synthesis of propargylamines in magnetized water: experimental aspects and molecular dynamics simulation, **Mohammad Bakherad**, Fatemeh Moosavi, Rahele Doosti, Ali Keivanloo, Mostafa Gholizadeh, *New Journal of Chemistry* **2018**, *42*, 4559.

100. Copper-Catalyzed Click Synthesis of Novel 1,2,3-Triazole-Linked Pyrimidines, **Mohammad Bakherad**, Fatemeh Rezaeimanesh, Hossein Nasr-Isfahani, *ChemistrySelect* **2018**, *3*, 2594.

101. A one-pot synthetic approach for the construction of a thiazolo[3,2-a]benzimidazole-linked quinazoline scaffold via palladium-catalyzed reactions, Ali Keivanloo, Atena Soozani, **Mohammad Bakherad**, Amir Hossein Amin, *Organic Chemistry Frontiers* **2018**, *5*, 1135.

102. Preparation of some novel imidazopyridine derivatives of indole as anticancer agents: one‐pot multicomponent synthesis, biological evaluation and docking studies, Zohreh Bakherad, Maliheh Safavi, Saghi Sepehri, Afshin Fassihi, Hojjat Sadeghi‐Aliabadi, **Mohammad Bakherad**, Hossein Rastegar, Bagher Larijani, Lotfollah Saghaie, Mohammad Mahdavi, *Research on Chemical Intermediates*, **2019**, *45*, 5261.

103. Anti‑cancer, anti‑oxidant and molecular docking studies of thiosemicarbazone indole‑based derivatives, Zohreh Bakherad, Maliheh Safavi, Afshin Fassihi, Hojjat Sadeghi‑Aliabadi, **Mohammad Bakherad**, Hossein Rastegar, Jahan B. Ghasemi, Saghi Sepehri, Lotfollah Saghaie, Mohammad Mahdavi, *Research on Chemical Intermediates*, **2019**, *45*, 2827.

104. Design and synthesis of novel cytotoxic indole-thiosemicarbazone derivatives: biological evaluation and docking study, Zohreh Bakherad, Maliheh Safavi, Afshin Fassihi, Hojjat Sadeghi-Aliabadi, **Mohammad Bakherad**, Hossein Rastegar, Mina Saeedi, Jahan B Ghasemi, Lotfollah Saghaie, Mohammad Mahdavi, *Chemistry & Biodiversity*, **2019**, doi.org/10.1002/cbdv.201800470.

105. New thiosemicarbazide-1,2,3-triazole hybrids as potent α-glucosidase inhibitors: Design, synthesis, and biological evaluation, Zohreh Bakherad, Maryam Mohammadi-Khanaposhtani, Hojjat Sadeghi-Aliabadi,Sepideh Rezaei, Afshin Fassihi, **Mohammad Bakherad**, Hossein Rastegar, Mahmood Biglar, Lotfollah Saghaie, Bagher Larijani, Mohammad Mahdavi, *Journal of Molecular Structure*, **2019**, *1192*, 192.

106. Synthesis of Thiazolo[3,2-b] [1,2,4]triazoles through Pd-Catalyzed Copper-Free Sonogashira Coupling Reaction, **Mohammad Bakherad**, Ahmad Kakav Ghalenoei, Ali Keivanloo, *Chemistry Select*, 2019, *4*, 9238.

107. SBA-15-supported-dithizone-copper(I): An efficient heterogeneous catalyst for synthesis of 1,4-disubstituted 1,2,3-triazoles in water, Ahmad Kakavand Ghalenoei, **Mohammad Bakherad**, Ali Keivanloo, *Iranian Journal of Catalysis* **2019,** *xx-xx*

108. Catalyst‑free green synthesis of tetrahydro‑benzo[*b*]pyrans in magnetized water: experimental aspects and molecular dynamics simulation, Mohammad Bakherad, Fatemeh Moosavi, Ali Keivanloo, Rahele Doosti, Elmira Moradian, Mahsa Armaghan, *Research on Chemical Intermediates*, **2019**, *45*, 2981.

109. Sonogashira coupling reactions: Synthesis of 4-substituted-6-methyl-2-(methylthio) pyrimidines catalyzed by Pd–Cu, Fatemeh Rezaeimanesh, Mohammad Bakherad, Hossein Nasr-Isfahani, *Journal of Chemical Research*, **2019**, doi.org/10.1177/1747519819868920

110. Ligand-free, copper-catalyzed, one-pot, three-component synthesis of novel 1,2,3-triazole-linked indoles in magnetized water, **Mohammad Bakherad**, Ali Keivanloo, Zohreh Bakherad, Zahra

Toozandejani, Mohamad Mahdavi, *Journal of Chinese Chemical Society*, **2019**, *66*, 674.

111. New heat shock protein (Hsp90) inhibitors, designed by pharmacophore modeling and virtual Screening: Synthesis, Biological evaluation and molecular dynamics studies, Maryam Abbasi, Massoud Amanlou, Mahmoud Aghaei, **Mohammad Bakherad**, Rahele Doosti & Hojjat Sadeghi-Aliabadi**,** *Journal of Biomolecular Structure and Dynamics***,** **2019** doi.org/10.1080/07391102.2019.1660216

112. Salophen Copper(II) Complex-Assisted Click Reactions for Fast Synthesis of 1,2,3-Triazoles Based on Naphthalene-1,4-dione Scaffold, Antibacterial Evaluation, and Molecular Docking Studies, Sima Abbaspour, Ali Keivanloo, **Mohammad Bakherad**, Saghi Sepehri, *Chemistry & Biodiversity*, **2019**, 16, e1800410.

113. New Pd-Mediated Cascade Reactions for Synthesis of Novel Functionalized 1,3-Oxazole-Linked Quinoxaline Amines, Ali Keivanloo, Sima Abbaspour, **Mohammad Bakherad**, Behrouz Notash, *ChemistrySelect*, **2019**, doi.org/10.1002/slct.201803653

114. Catalyst-free, a Green, and Efficient Protocol for the Synthesis of 1,8-dioxooctahydroxanthenes in Magnetized Water, **Mohammad Bakherad**, Ali Keivanloo, Amir Hossein Amin, Amir Farkhondeh, *Journal of The Mexican Chemical Society*, **2019**, *63*, 199-207.

115. Synthesis of 1,2,3 triazole-linked benzimidazole through a copper-catalyzed click reaction, **Mohammad Bakherad**, Ali Keivanloo, Amir H. Amin and Amir Farkhondeh, *Heterocyclic. Communnications*, **2019**, 25, 122–129.

116. Synthesis of Thiazolo[3,2-b] [1,2,4]triazoles through Pd-Catalyzed Copper-Free Sonogashira Coupling Reaction, **Mohammad Bakherad**, Ahmad Kakav Ghalenoei, and Ali Keivanloo, *ChemistrySelect*, **2019**, *4*, 9238 –9240.

117. Sodium 4-amino-5-hydroxy-7-sulfonaphthalene-2-sulfonate an efficient ligand for click reaction in water: Synthesis of 1,2,3-triazole pharmacophore linked-quinazolinone scaffold, Ali Keivanloo, **Mohammad Bakherad**, Lotfollah Mokhtarei, *Journal of. Heterocyclic Chemistry*, **2019**, 1–8.

118. Synthesis of 1,4-disubstituted 1,2,3-triazoles Catalyzed by Eggshell-supported-Cu(I) Metformin Complex as a Heterogeneous Catalyst in Water, **Mohammad Bakherad,** Raheleh Doosti, Zeynab Qasemifar, *Journal of Applied Chemical Research*, **2019**, *14*, 8-20.

119. Synthesis of 1,2,3 triazole-linked pyrimidines catalyzed by Mg-Al-LDH-immobilized-CuI as a heterogeneous catalyst, Fatemeh Rezaeimanesh, **Mohammad Bakherad**, Hossein Nasr-Isfahani, Bahram Bahramian, Soheila Naderi, *Journal of. Heterocyclic Chemistry*, **2019**, 1–10.

120. Design, Synthesis, Antibacterial Evaluation and Molecular Docking Study of New 3-Aminoquinoxaline-2-alkynyl Carboxylate Esters, Sima Abbaspour, Ali Keivanloo, **Mohammad Bakherad**, and Saghi Sepehri, *ChemistrySelect*, **2020**, *5*, 8701 –8706.

121. Click Synthesis of 1,2,3-Triazoles-Linked 1,2,4-Triazino[5,6-*b*]indole, Antibacterial Activities and Molecular Docking Studies, Ali Keivanloo, Saghi Sepehri, **Mohammad Bakherad**, and Mahboobe Eskandari, *ChemistrySelect*, **2020**, *5*, 4091 –4098.

122. One‐pot sequential coupling reactions as a new practical protocol for the synthesis of unsymmetrical 2,3‐diethynyl quinoxalines and 4‐ethynyl‐substituted pyrrolo[1,2‐a]quinoxalines, Ali Keivanloo, Saeed Lashkari, Mohammad Bakherad, Mahsa Fakharian, Sima Abbaspour, *Molecular Diversity*, https://doi.org/10.1007/s11030-020-10083-5.

123. Ligand‐assisted click reaction for the synthesis of new hybrid compounds based on 1,2,3‐triazoles and 5,5‐diphenylimidazolidine‐2,4‐dione and evaluation of their antibacterial activities Ali Keivanloo, Saeed Lashkari, Saghi Sepehri, **Mohammad Bakherad**, Sima Abbaspour, *Monatshefte für Chemie - Chemical Monthly*, https://doi.org/10.1007/s00706-020-02616-3.

124. Trimesic acid is a suitable building block in triple four‐component Ugi reaction: access to unique trivalent compounds, Negin Dehghan, Hossein Nasr‐Isfahani, Afshin Sarvary, **Mohammad Bakherad**, *Monatshefte für Chemie - Chemical Monthly*, https://doi.org/10.1007/s00706-020-02554-0.

125. Metal-free green synthesis of aryl amines in magnetized distilled water: experimental aspects

and molecular dynamics simulation, **Mohammad Bakherad**, Zainab Moosavi-Tekyeh, Amin Rezaeifard, Rahele Doosti, Nasrin Mehmandoost, Naser Goudarzi and Sima Omara, *Green Chemistry,* 2020, DOI: 10.1039/d0gc01329c.