



Faculty Name

Mervat M. Abdelkhalik

Location

Shuwaikh Campus: Building 20, 2nd Floor, Office: S-62

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Education

PhD.	Chemistry, Ain Shams Univ., Egypt	1986
MSc.	Chemistry, Ain Shams Univ., Egypt	1982
BSc.	Chemistry (Minor: Physics), Ain Shams Univ., Egypt	1975

Academic Experience

2003 – Present	Assistant Professor, CTS (PAAET), Kuwait
1999 – 2003	Professor, Ain Shams Univ., Egypt
1994 – 1999	(Interval Period) Researcher, Kuwait Univ., Kuwait
1986 – 1999	Lecturer, Ain Shams Univ., Egypt
1982 – 1986	Teaching Assistant, Ain Shams Univ., Egypt
1975 – 1982	Lab. Instructor, Ain Shams Univ., Egypt

Research Interests

Our group research interests are primarily in green synthetic chemistry. Our projects involve design, synthesis, purification, structural elucidation. The compounds synthesized are usually designed to have structural similarities to known substrates of considerable pharmaceutical interest. Key strategies for achieving green outcomes are efficient catalysis and the use of microwave assisted solvent-free synthesis.

Service Activities

Workshops:

1. Kuwait Chemical Society: First workshop in Green Chemistry / 17-19 March 2009.
2. Shared the supervision of 10 candidates for M. Sc. and Ph. D. degrees at Cairo, Ain-shams and Kuwait Universities.
3. Organize the design of chemistry courses for the applied science department with the chairman of the committee on the development of curriculum,
4. Lead of the Scientific Society of Chemistry for undergraduate members.
5. Supervision of Student Research Projects and development of an undergraduate research project program.
6. Participation with students in departmental and institutional activities

Conferences

1. Oral presentation in the 1st Conference on Chemistry (Chem.1), Chemistry Dept., Faculty of Science, Cairo University. Cairo, Egypt, 6-9 March 2000.
2. Participated in 7th Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Alexandria-Egypt, 25-28 March 2000.
3. Participated in 8th Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Luxor-Egypt, 16-19 February 2002.

Publications

4. Participated in the 7th International Conference on Chemistry and its Roles in Development (ICCRD). Sharm El-Sheikh-Egypt. April 14-17, 2003
 5. Participated in the 5th European-Asian (Eurasian) Meeting on Heterocyclic Chemistry (EAMHC 5), Kuwait, March 1-6, 2008.
-
1. A Simple and Efficient Multicomponent Synthesis of Novel Pyrazole, N-aminopyridine and Pyrazolo[3,4-b]Pyridine Derivatives in Water
By: Mervat Mohammed Abdelkhalik, Abdulaziz Alnajjar, Solwan Maher Ibrahim, Mohammed Abdelmonem Raslan, Kamal Usef Sadek
DOI:10.20944/preprints202312.1232.v1
Journal of Physical Chemistry & Biophysics Vol.14 Iss.1 No:1000371, Jan 2024
OPEN ACCESS Freely available online
 2. Regioselectivity in the Reaction of 2-Aminobenzothiazoles and 2-Aminobenzimidazoles with Enaminonitriles and Enaminones: Synthesis of Functionally Substituted Pyrimido[2,1-b][1,3]benzothiazole and Pyrimido[1,2-a]benzimidazole Derivatives
By: Abdulaziz Alnajjar, **Mervat Mohammed Abdelkhalik**, Hossam Mohammed Riad, Samia Mohammed Sayed, Kamal Usef Sadek
Journal of Heterocyclic Chemistry, Volume55, Issue12, December 2018, Pages 2760-2765
<https://doi.org/10.1002/jhet.3337>
 3. Synthesis of New [1,2,4]Triazolo[1,5-a]pyrimidine Derivatives: Reactivity of 3-Amino[1,2,4]triazole towards Enaminonitriles and Enaminones
By: Abdulaziz Alnajjar, **Mervat Mohammed Abdelkhalik**, Mohamed Abdelmonem Raslan, Solwan Maher Ibraheem, Kamal Usef Sadek
Journal of Heterocyclic Chemistry Volume 55, Issue7, July 2018, Pages 1804-1808
<https://doi.org/10.1002/jhet.3222>
 4. [Cerium (IV) ammonium nitrate as an efficient Lewis acid for the one-pot synthesis of 3, 4-dihydropyrimidin-2 (1H)-ones and their corresponding 2-(1H) thiones
By: Kamal Usef Sadek, Fawzia Al-Qalaf, **Mervat Mohammed Abdelkhalik**, Mohamed Hilmy Elnagdi
Journal of Heterocyclic Chemistry, Volume47, Issue2, March 2010, Pages 284-286
[PDF] [academia.edu](https://www.academia.edu)
<https://doi.org/10.1002/jhet.259>
 5. Gas-phase pyrolysis in organic synthesis: A route for synthesis of cyanamides
By: Nouria A. Al-Awadi, **Mervat Mohammed Abdelkhalik**, Osman M. E. El-Dusouqui, Mohammad H. Elnagdi
Journal of Heterocyclic Chemistry, Volume47, Issue1, January 2010, Pages 207-209
<https://doi.org/10.1002/jhet.217>
 6. Enaminones as building blocks in heterocyclic syntheses: Reinvestigating the product structures of enaminones with malononitrile. A novel route to 6-substituted-3-Oxo-2,3-Dihydropyridazine-4-Carboxylic Acids

By: Abdulaziz Alnajjar , **Mervat M Abdelkhalik** , Amal Al-Enezi , Mohammed H Elnagdi

Molecules **2009**, *14* (1), 68-77;

[PDF] mdpi.com

ISSN 1420-3049

<https://doi.org/10.3390/molecules14010068>

<https://doi.org/10.1081/SCC-120001996>

7. Synthesis of 5-Substituted 3-Amino-1*H*-Pyrazole-4-Carbonitriles as Precursors for Microwave Assisted Regiospecific Syntheses of Pyrazolo[1,5-*a*]Pyrimidines

By: Fawzia Al-Qalaf , Faisal Mandani , **Mervat Mohammed Abdelkhalik** , and Abeer Abdulrahman Bassam

Molecules **2009**, *14*, 78-88;

DOI:10.3390/molecules14010078

[PDF] mdpi.com ISSN 1420-3049

8. Enaminones as building blocks in organic syntheses: on the reaction of 3-dimethylamino-2- propenones with malononitrile

By: Saleh Mohammed Al-Mousawi, Moustafa Sherief Moustafa, **Mervat Mohammed Abdelkhalik** and Mohamed Hilmy Elnagdi

ARKIVOC 2009 Part (xi) pages 1-10

[PDF] arkat-usa.org

<http://dx.doi.org/10.3998/ark.5550190.0010.b01>

Paper ID: 09-3956UP ISSN 1551-7012

9. Gas-phase pyrolysis in organic synthesis: New route for synthesis of functionally substituted imidazoles

By: Osman M. E. El-Dusouqui, Nouria A. Al-Awadi, Mohamed H. Elnagdi, **Mervat M. Abdelkhalik**

Journal of Heterocyclic Chemistry, Volume 45, Issue6, Nov/Dec 2008, Pages 1751-1753

<https://doi.org/10.1002/jhet.5570450629>

10. Studies with functionally substituted enamines: synthesis of 2-aro-yl-3-dimethylamino-2-propenenitrile and their reactivity toward nitrogen nucleophiles

By: Fawzia Al-Qalaf, **Mervat Mohammed Abdelkhalik**, Amal Al-Enezi

Heterocycles, 75 (1), 145-156, 2008-01-01 ci.nii.ac.jp

<http://id.ndl.go.jp/bib/000000129276>

11. Pyrolytic methods in organic synthesis: Novel routes for the synthesis of 3-oxoalkanenitriles, 2-acyl anilines, and 2-aro-yl anilines

By: Nouria A. Al-Awadi, **Mervat M. Abdelkhalik**, Ismail A. Abdelhamid, Mohamed H. Elnagdi

Synlett **2007**(19): 2979-2982

thieme-connect.com

DOI: 10.1055/s-2007-992355

12. Flash Vacuum Pyrolysis of 1-Azoly-1-phenylhydrazono-2-propanones

By: Osman M. E. El-Dusouqui, **Mervat M. Abdelkhalik**, Alya M. Al-Etaibi, Hicham H. Dib, Nouria A. Al-Awadi

J. Heterocyclic Chem., 44, 219-222 (2007).

<https://doi.org/10.1002/jhet.5570440135>

13. Pyrolytic Behavior of Substituted N-Aminoheteroaromatics: Synthesis of Pyrazolo[1,5-a]pyridine and 3-Substituted 3-Oxo-propionitrile Derivatives
By: Nouria A. Al-Awadi, **Mervat M. Abdelkhalik**, Mehul Patel and Hicham H. Dib
J. Heterocyclic Chem., Volume 44, Issue5, September/October 2007, Pages 989-992
<https://doi.org/10.1002/jhet.5570440501>
14. Chemistry of 2-arylhydrazonals: utility of substituted 2-arylhydrazono-3-oxoalkanals as precursors for 3-oxoalkanonitriles, 3-aminoisoxazole and 1, 2, 3- and 1, 2, 4-Triazoles
By: Osman M.E. El-Dusouqui, **Mervat M. Abdelkhalik**, Nouria A. Al-Awadi, Hicham H. Dib, Bobby J. George, and Mohammed H. Elnagdi
J. Chem. Res. **2006**, MAY, 295–302
journals.sagepub.com
<https://doi.org/10.3184/030823406777410945>
15. Studies with condensed thiophenes: Reactivity of condensed aminothiophenes toward carbon and nitrogen electrophiles
By: Balkis Al-Saleh, **Mervat M. Abdelkhalik**, Morsy A. El-Asery and Mohamed H. Elnagdi
Journal of chemical research **2005** January, 23–26
[PDF] sagepub.com
DOI:10.3184/0308234053431103
16. Studies with condensed amino-thiophenes: Further investigation of reactivity of amino-thieno-coumarines and amino-thieno-benzo [h] coumarines toward electron-poor olefins and acetylenes
By: **Mervat M. Abdelkhalik**, Abdalla M. Negm, Ayatt I. Elkhoully, Mohammed H. Elnagdi
Heteroatom Chemistry, Volume15, Issue7, **2004**, Pages 502-507
<https://doi.org/10.1002/hc.20047>
17. Enaminones as building blocks in heterocyclic synthesis: New syntheses of nicotinic acid and thienopyridine derivatives
By: **Mervat Mohammed Abdelkhalik**, Afaf Mohammed Eltoukhy, Samia Michel Agamy, Mohammed Hilmy Elnagdi
Journal of Heterocyclic Chemistry, Volume 41, Issue 3, May/June **2004**, Pages 431-434
<https://doi.org/10.1002/jhet.5570410321>
18. N-Azolylmethyl ketones as building blocks in heterocyclic synthesis: Synthesis of new polyfunctionally substituted azolylarylazophenols, azolylpyridones and azolylthiophenes
By: Balkis Al-Saleh, Morsy Ahmed El-Asery, **Mervat Mohammed Abdelkhalik**, Mohammed Hilmy Elnagdi
Journal of Heterocyclic Chemistry, Volume40, Issue1, January/February **2003**, Pages 171-175
<https://doi.org/10.1002/jhet.5570400125>
19. Enaminones as building blocks in heterocyclic syntheses: A new approach to polyfunctionally substituted cyclohexenoazines

- By:** Saleh Al-Mousawi, Elizabeth John, **Mervat Mohammed Abdelkhalik**, Mohammed Hilmy Elnagdi
Journal of Heterocyclic Chemistry, Volume40, Issue4, July/August 2003, Pages 689-695
<https://doi.org/10.1002/jhet.5570400421>
20. Enaminones in heterocyclic synthesis: A new regioselective synthesis of 2, 3, 6-trisubstituted pyridines, 6-substituted-3-arylpyridines and 1, 3, 5-triaroylbenzenes
By: Balkis Al-Saleh, **Mervat Mohammed Abdelkhalik**, Afaf Mohammed Eltoukhy, Mohammed Hilmy Elnagdi
Journal of Heterocyclic Chemistry, Volume39, Issue5, September/October 2002, Pages 1035-1038
<https://doi.org/10.1002/jhet.5570390528>
21. Enaminones in organic synthesis: A novel synthesis of 1, 3, 5-trisubstituted benzene derivatives and of 2-substituted-5-arylpyridines
By: **Mervat Mohammed Abdelkhalik**, Mohammed Hilmy Elnagdi
Synthetic communications, 2002 - Taylor & Francis, Pages 159-164
<https://doi.org/10.1081/SCC-120001996>
22. Functionally substituted alkylbenzotriazoles: Reactivity of alkylbenzotriazoles toward electrophilic and nucleophilic reagents
By: Balkis Al-Saleh, **Mervat Mohammed Abdel-Khalik**, Elham Darwich, Ossama Abdel-Motaleb Salah and Mohammed Hilmy Elnagdi
Heteroatom Chemistry Volume 13, Number 2, 2002
[PDF] cu.edu.eg
DOI:10.1002/chin.200231142
23. Functionally Substituted Alkylbenzotriazole: Reactivity of Alkylbenzotriazole towards Electrophilic and Nucleophilic Reagents
By: Balkis Al-Saleh, **Mervat Mohammed Abdelkhalik**, Elham Darwich, Ossama Abdel-Motaleb Salah and Mohammed Hilmy Elnagdi.
Heteroatom Chemistry, Volume13, Issue2, 2002, Pages 141-145
<https://doi.org/10.1002/hc.10009>
24. Chemistry of 2-arylhydrazonopropanals: novel synthesis of 1, 6-dihydropyridazines and 5-heteroaryl substituted pyrazolo [1, 5-a] pyrimidines and pyrazolo [3, 4-b] Pyridines
By: **Mervat Mohammed Abdel-Khalik**, Samia Michel Agamy, Mohammed Hilmy Elnagdi
Synthesis 2001(12): 1861-1865 thieme-connect.com
DOI: 10.1055/s-2001-17522
25. Enaminones as building blocks in heterocyclic synthesis: a new one pot synthesis of polyfunctional substituted pyridines
By: Samia Michel Agamy, **Mervat Mohammed Abdelkhalik**, Mona Hassan Mohamed and Mohammed Hilmy Elnagdi
Zeitschrift für Naturforschung 56B, 1074-1078 (2001); degruyter.com
[PDF] mpg.de
<https://doi.org/10.1515/znb-2001-1016>
26. Studies with functionally substituted N-alkylazoles: The reactivity of 1-(3,5-dimethylpyrazol-1-yl)-acetone towards electrophilic reagents

By: Mona Hassan Mohamed, Mohamed Hilmy Elnagdi, **Mervat Mohammed Abdel-Khalik**

Journal of Heterocyclic Chemistry, Volume 38, Issue 3, May/June 2001, Pages 685-689

<https://doi.org/10.1002/jhet.5570380324>

27. Studies with enamines: reactivity of 1, 5-disubstituted-1, 4-pentadien-3-ones toward electrophilic reagents. A novel route to azolylazines benzofuranals, pyranones

By: Saleh Al-Mousawi, Seham El-Sherbiny, Elizabeth John, **Mervat Mohammed Abdel-Khalik**, Mohammed Hilmy Elnagdi

Journal of Heterocyclic Chemistry, Volume 38, Issue 4, July/August 2001, Pages 949-953

<https://doi.org/10.1002/jhet.5570380422>

28. Gas-Phase Pyrolysis of 2-Heteroaromatic-1-dimethylaminoethylenes: Kinetic and Mechanistic Study

By: Mohammed H. Elnagdi, Nouria Al-Awadi, Agith Kumar, Mervat Mohammed AbdelKhalik.

Heteroatom Chemistry, Volume 12, Issue 1, 2001, Pages 47-51

[https://doi.org/10.1002/1098-1071\(2001\)12:1<47::AID-HC10>3.0.CO;2-Q](https://doi.org/10.1002/1098-1071(2001)12:1<47::AID-HC10>3.0.CO;2-Q)

29. Gas-Phase Pyrolysis of 2-Heteroaromatic-1-dimethylaminoethylenes: Kinetic and Mechanistic Study

By: Mohammed H. Elnagdi, Nouria Al-Awadi, Agith Kumar, Mervat Mohammed AbdelKhalik.

Heteroatom Chemistry, Volume 12, Issue 1, 2001, Pages 47-51

[https://doi.org/10.1002/1098-1071\(2001\)12:1<47::AID-HC10>3.0.CO;2-Q](https://doi.org/10.1002/1098-1071(2001)12:1<47::AID-HC10>3.0.CO;2-Q)

30. Studies with 2-Arylhydrazono-3-oxopropanals: A Novel Route to 4-Aroyl-2-aryl-1, 2, 3-triazoles, 3-Substituted 4-Arylazopyrazoles, 2-Substituted Glyoxalonitrile and 3-Oxoalkanonitriles

By: **Mervat Mohammed Abdel-Khalik**, Samia Michel Agamy and Mohammed Hilmy Elnagdi

Z. Naturforsch. 55b, 1211-1215 (2000); received May 23, 2000. degruyter.com

<https://doi.org/10.1515/znb-2000-1216>

31. Studies with functionally substituted heteroaromatics: the chemistry of n-phenylhydrazonylalkylpyridinium salts and of phenylhydrazonylalkylbenzoxazoles

By: **Mervat Mohammed Abdel-Khalik**, Mohammed Hilmy Elnagdi, Samia Michel Agamy

Synthesis 2000 (8): 1166-1169

thieme-connect.com

DOI: 10.1055/s-2000-6326

32. Studies with 2H pyranones: Synthesis of new 3-substituted-4-hydroxy-2H-pyran-2-ones

By: Balkis Al-Saleh, Nouria Al-Awadi, Halema Al-kandari, **Mervat Mohammed Abdel-Khalik** and Mohamed Hilmy Elnagdi,

J. Chem. Research (S), 2000, 16-17 J. Chem. Research (M), 2000, 0201-0214

[PDF] journals.sagepub.com

33. Synthesis of New Azoloazine Derivatives: New Routes to 1, 2, 4-Triazolo [4, 3-a] pyrimidines, Pyrazolo [1, 5 a] pyridines and Pyrazolo [3, 4-b]-pyridinones

By: Balkis Al-Saleh, **Mervat Mohammed Abdel-Khalik**, Amal Al-Enzy and Mohammed Hilmy Elnagdi

J. Chem. Research (S), 1999, 654-655, *J. Chem. Research (M)*, **1999**, 2848-2858

[PDF] sagepub.com

DOI: 10.1039/A905642D

34. Novel C-alkylation Reaction of Condensed Thiophenes with Enaminones, Enaminonitriles, Ethoxymethylene Malononitrile, Aryl Vinyl Ketones and ω -Nitrostyrenes

By: Alya Al-Etaibi, Nouria Al-Awadi, Fatima Al-Omran, **Mervat Mohammed Abdel-Khalik** and Mohamed Hilmy Elnagdi

J. Chem. Res. (S), **1999**, 4-5 pubs.rsc.org

DOI: 10.1039/A806260I

35. Benzotriazol-1-yl-acetone as a Building Block in Heterocyclic Chemistry: a Route to Benzotriazolylpyridazines, Benzotriazolylphthalazines and Benzotriazolyl pyrazolo[5,1-c]-1,2,4-triazines

By: Abdul Aziz Al-Naggar, **Mervat Mohammed Abdelkhalik** and Mohammed Hilmy Elnagdi

J. Chem. Res. (S), Issue 11, **1999**, 648-649, (M), 2801-2810, 1999.

pubs.rsc.org

<https://doi.org/10.1039/A905641F>

36. New synthesis of Substituted Pyridazin-6-ones and Pyridazin-6-imines

By: Heidar Behbahani, **Mervat Mohammed Abdel-Khalik**, Mohammed Hilmy Elnagdi.

Organic Preparations and Procedures Inc., 31(5), 551-557 (1999)

<https://doi.org/10.1080/00304949909355339>

37. Methylheteroaromatic Carbonitriles as Building Blocks for Synthesis of Condensed Heteroaromatics: Novel Syntheses of [1] Benzo [2, 3] pyrano [3, 4-c] pyridines, Pyrido[3,4-c]quinolines and Other New Condensed Pyridines

By: Fatima Al-Omran, **Mervat Mohammed Abdel-Khalik**, Adel Abou El-khair and Mohammed Hilmy Elnagdi

J. Chem. Res. (S), **1998**, 294-295, (M), 1201-1214, 1998 pubs.rsc.org

<https://doi.org/10.1039/A703549G>

38. Studies with 3-Oxoalkanenitriles: Synthesis of NewPyrazolo [1, 5-a] pyrimidines andPyrazolo [5, 1-c]-1, 2, 4-triazines and Reactivity of4-Phenyl-3-oxobutanenitrile Derivatives

By: **Mervat Mohammed Abdel Khalik**

J. Chem. Res. (S), **1997**, 198-199- pubs.rsc.org

<https://doi.org/10.1039/A700024C>

39. Studies with functionally substituted heteroaromatics: A novel route for the synthesis of 1-aryl-6-oxopyridazinones, 1-arylpyridazine-6-imines and 1-aryl-6-imino-4-pyridazinals

By: Fatima Al-Omran, **Mervat Mohammed Abdelkhalek**, Adel Abou-Elkhair, Mohammed Hilmy Elnagdi

Synthesis **1997**; 1997(1): 91-94 thieme-connect.com

DOI: 10.1055/s-1997-1512

40. 1-Substituted 3-dimethylaminoprop-2-en-1-ones as building blocks in heterocyclic synthesis: Routes to 6-aryl- and 6-heteroaryl-2H-pyran-2-ones and 6- and 4-Arylpyridin-2(1H)-ones
By: Fatima Al-Omran, Nouria Al-Awadhi, **Mervat Mohammed Abdelkhalik**, Kamini Kaul, Abdel Abu EL-Khair and Mohammed Hilmy Elnagdi
J.Chem.Research (S). 1997, 84-85, (M) 1997, 0601-0615 pubs.rsc.org
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DOI: 10.1039/A605368H
41. Reactivity of condensed thiophenes in the Diels-Alder reaction: The reactivity of 3-aminothieno [3, 4: 3, 4] benzo [b] pyranone; 3-aminothieno [3, 4-c] quinoline and of 5-amino-7-substituted thieno [3,4-d] pyridazinone toward electron-poor olefins and acetylenes
By: Fatima Al-Omran, **Mervat Mohammed Abdelkhalik**, Hanan Al-Awadhi, Mohammed Hilmy Elnagdi
Tetrahedron, Volume 52, Issue 36, 2 September 1996, Pages 11915-11928
Elsevier
[https://doi.org/10.1016/0040-4020\(96\)00689-8](https://doi.org/10.1016/0040-4020(96)00689-8)
42. Pyrolysis of aminonitriles, cyanohydrazones, and cyanoacetamides. Part II. Elimination reactions of arylacetylhydrazone, arylcyanoacetylhydrazone, and substituted cyanoacetamides
By: Nouria A. Al-Awadi, Mohamed H. Elnagdi, Tommy Mathew, **Mervat Abdelkhalik**
International Journal of Chemical Kinetics, Volume 28, Issue 10, October 1996, Pages 749-754
[https://doi.org/10.1002/\(SICI\)1097-4601\(1996\)28:10<749::AID-KIN5>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1097-4601(1996)28:10<749::AID-KIN5>3.0.CO;2-N)
43. Pyrolysis of aminonitriles, cyanohydrazones, and cyanoacetamides. Part I. Elimination reaction of 1-arylmethyleneamino-1,2-dihydro-4,6-dimethyl-2-oxopyridine-3-carbonitriles and substituted benzaldehyde cyanoacetylhydrazones
By: Nouria A. Al-Awadi, Mohamed H. Elnagdi, Tommy Mathew, Ibrahim El-Gamry, **Mervat M. Abdelkhalik**
International Journal of Chemical Kinetics, Volume 28, Issue 10, October 1996, Pages 741-748
[https://doi.org/10.1002/\(SICI\)1097-4601\(1996\)28:10<741::AID-KIN4>3.0.CO;2-N](https://doi.org/10.1002/(SICI)1097-4601(1996)28:10<741::AID-KIN4>3.0.CO;2-N)
44. Studies with polyfunctionally substituted heteroaromatics: New routes for the synthesis of polyfunctionally substituted pyridines and 1, 2, 4-triazolo [1, 5-a] pyridines
By: Fatima Al-Omran, **Mervat Mohamed Abdel Khalik**, Mohamed Hilmy Elnagdi
Heteroatom chemistry, Volume 6, Issue 6, November/December 1995, Pages 545-551
<https://doi.org/10.1002/hc.520060609>
45. Alkyl (Oxo) Pyridazine Carbonitriles As Building Blocks in Heterocyclic Synthesis: New Synthesis of Pyrido[3,4-c] Pyridazines, Pyrido[3,4-

Professional Development Activities

d]Pyridazines, Thiopyrano[3,4-c]Pyridazines and 1,3,4-Thiadiazace naphthylenes.

By: F. Abou-Shanab, B. Wakefield, F. Al-Omran, **M. M. Abdel Khalik** and M. H. Elnagdi.

J. Chem. Research (S) 488-489 (1995) & *(M)* 2921-2946 (1995)

Research Projects at the Public Authority for Applied Education and Training. Financed under:

- **(Transform grant TS-07-11). 2008-2010**
New Green Synthetic Approaches To Polyfunctionally Substituted Aminoazoles, Azines And Their Condensed Derivatives.
- **(Transform grant TS-06-14), 2008-2010**
Investigation with Green Synthetic Methodologies: Approaches for synthesis of amines from hydrazonitriles.
- **(Transform grant TS-04-003). 2006-2008**
Microwave Assisted Preparation of Functionalized pyrans and pyridines *via* Hetero-Diels-Alder Reactions of Enaminones with electron-poor Dienophiles.

Participant researcher in research projects at Kuwait University. Financed under:

- **(Transform grant Sc 08/04) 2005-2008**
Pyrolysis of heterocyclic compounds: synthetic application and mechanistic studies.
- **(Transform grant SC11/02) 2005-2007**
Synthesis and intramolecular cycloaddition chemistry of condensed thiophenes.
- **(Transform grant Sc 02/03) 2004-2007**
Gas phase pyrolytic reactions in organic synthesis, new reactions in gas-phase pyrolysis.
- **(Transform grant Sc 02/02)**
Cycloaddition chemistry of condensed aminothiophenes: green synthetic approach.
- **(Transform grant Sc 103)**
Utility of N-azolyl acetic acid and methyl ketone derivatives for synthesis of functionally substituted heteroaromatics
- **(Transform grant SPC 099) 1998-2001**
New routes to pyridones and pyridazinones as potential HIV-reverse transcriptase and aldose reductase inhibitors.
- **(Transform grant Sc11/02) 1997-2001**
Adoption of gas-phase thermolysis in heterocyclic synthesis: novel routes to benzocoumarines, pyridazines and condensed pyridazines.
- **(Transform grant SPC 089) 1997-1999**
Studies with polyfunctionally substituted heteroaromatics: Novel synthesis of condensed pyridazines, pyrimidines and condensed thiophenes.
- **(Transform grant SPC 082) 1996-1999**
Alkazinyl carbonitriles as building blocks in heterocyclic synthesis.



- **(Transform grant SPC 080) 1995-1998**
A new route for synthesis of coumarines, quinolines and azolopyrimidines.
- **(Transform grant SPC 071) 1994-1997**
Studies with polyfunctionally substituted heteroaromatic: New routes for the synthesis of functionally substituted polyaza-biaryls and condensed polyaza-aryls.
- **(Transform grant SPC 067) 1994-1997**
New reactions in Gas phase thermolysis.
- **(Transform grant Sc 01/02) 2003-2006**
Gas-Phase Thermolysis of Arylhydrazono-1,2,3-Triones.

Last Revised: May, 2026

