

Title	Authors	Date	Publication	Keywords
1 New multi-component reaction accessing 3-aminoimidazo[1,2-a]pyridines	John Schwerkoske, Thierry Masquelin, Tom Perun and Christopher Hulme	2005	Tetrahedron Letters 46 (2005) 8355–8357	3-aminoimidazo[1,2-a]pyridines; multi-component reaction, trimethylsilylscyanide,
2 Microwave-Assisted Generation and Reactions of Nitrile Sulfides	Angus J. Morrison, R. Michael Paton and Robert D. Sharp	2005	Synthetic Communications, 35: 807–813, 2005	cycloaddition, nitrile sulfide, thiadiazole, isothiazole, oxathiazolone
3 Microwave-Assisted Synthesis of Polysubstituted Pyridazines	Giacomo Minetto, L. Raffaella Lampariello, Maurizio Taddei	2005	Synlett 2005, No. 18, pp 2743–2746	pyridazine, cyclocondensation, diketone, hydrazine, open vessel
4 Microwave promoted oxazole synthesis: cyclocondensation cascade of oximes and acyl chlorides	Peter Wipf , Joan M. Fletcher and Laura Scarone	2005	Tetrahedron Letters 46 (2005) 5463–5466	Oximes; Oxazoles; Cascade reaction; Rearrangement.
5 Rapid one-pot preparation of 2-substituted benzimidazoles from 2-nitroanilines using microwave conditions	David S. VanVliet, Paul Gillespie and Jan J. Scicinski	2005	Tetrahedron Letters 46 (2005) 6741- 6743	Benzimidazole; Cyclization: Nitroaniline
6 A Novel Efficient Three-Component One-Pot Synthesis of 1,3-Diazabicyclo[3.1.0]hex-3-ene System under Microwave Irradiation	Francesco Risitano , Giovanni Grassi, Francesco Foti, Sonia Moraci	2005	Synlett 2005, No. 10, pp 1633–1635	bicyclic aziridine, multicomponent reaction,

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|----|---|---|------|---|--|
| 7 | One-pot Synthesis of 2-Aryl- and 2-Alkylbenzothiazoles under Microwave Irradiation | Sukanta Kamila, Hongming Zhang, and Edward R. Biehl | 2005 | Heterocycles, Vol. 65, No. 9, 2005, pp. 2119-2126 | benzothiazole, beta-keto ester, aminothiophenol, solvent-free |
| 8 | An Efficient and Simple Aqueous N-Heterocyclization of Aniline Derivatives: Microwave-Assisted Synthesis of N-Aryl Azacycloalkanes | Yuhong Ju and Rajender S. Varma | 2005 | Org. Lett., Vol. 7, No. 12, 2005 | heterocycle, cyclization, Aryl Azacycloalkanes, green chemistry |
| 9 | Microwave-Assisted Sequential Amide Bond Formation and Intramolecular Amidation: A Rapid Entry to Functionalized Oxindoles | Rajamohan R. Poondra and Nicholas J. Turner | 2005 | Org. Lett., Vol. 7, No. 5, 2005 | oxindoles, intramolecular amidation, palladium catalyzed |
| 10 | Design, Microwave-Assisted Synthesis, and Photophysical Properties of Small Molecule Organic Antennas for Luminescence Resonance Energy Transfer | Hong-Kee Lee, Hong Cao, and Tariq M. Rana | 2005 | J. Comb. Chem. 2005, 7, 279-284 | carbostyryl, quinolinone fluorescence, phenylenediamine, beta-ketoesters |
| 11 | Pictet–Spengler heterocyclizations via microwave-assisted degradation of DMSO | Christophe Mesangeau, Said Yous, Basile Peres, Daniel Lesieura and Thierry Besson | 2005 | Tetrahedron Letters 46 (2005) 2465–2468 | heterocycles, Pictet–Spengler reaction, melatonin, dimethyl sulfoxide, open vessel |
| 12 | Microwave-Enhanced Cadogan Cyclization: An Easy Access to the 2-Substituted Carbazoles and other Fused Heterocyclic Systems | Microwave-Enhanced Cadogan Cyclization Prasad Appukkuttan, Erik Van der Eycken, Wim Dehaen | 2005 | Synlett 2005, No. 1, pp 0127–0133 | Carbazole, fused heterocycle, Cadogan cyclization, Suzuki–Miyaura cross-coupling |
| 13 | Efficient Microwave Enhanced Synthesis of 4-Thiazolidinones | Gududuru, V.; Nguyen, V.; Dalton, J. T.; Miller, D. D. | 2004 | SYNLETT 2004, No. 13, pp 2357–2358 | heterocycles, condensation, 4-thiazolidinones, open vessel, multi-component reaction |

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|----|---|--|------|---|--|
| 14 | Highly Efficient Microwave-assisted Fluorous Ugi and Post-condensation Reactions for Benzimidazoles and Quinoxalinones | Tempest, P; Zhang, W | 2004 | Tetrahedron Lett., 2004, 45, 6757-6760 | Ugi, cyclorelease, benzimidazole, quinoxalinone, multicomponent, fluorous synthesis, |
| 15 | Microwve-assisted preparation of cyclic ureas from diamines in the presence of ZnO | Kim YJ; Varma, RS | 2004 | Tetrahedron Lett., 2004, 45, 7205-7208 | cyclic urea, urethane, diamine, Zinc oxide, open vessel |
| 16 | Solid Phase Synthesis of Indol-2-ones by Microwave-assisted Radical Cyclization | Hisashi Akamatsu, Koichi Fukase and Shoichi Kusumoto | 2004 | Synlett 2004, No. 6, 1049-1053 | heterocycle, indol-2-one, solid phase, combinatorial, cyclization |
| 17 | Microwave-assisted Direct Addition of Cycloethers to Alkynes | Zhang, Y; Li, CJ | 2004 | Tetrahedron Lett., 2004, 45, 7581-7584 | vinyl cycloethers, terminal alkynes, tetrahydrofuran, tetrahydropyran, 2-Vinyl substituted heterocycles, green chemistry |
| 18 | Microwave-assisted solvent-free synthesis of a quinoline-3,4-dicarboximide library on inorganic solid supports | Annalisa Mortoni , Marisa Martinelli, Umberto Piarulli, Nickolas Regalia and Stefania Gagliardi | 2004 | Tetrahedron Letters 45 (2004) 6623–6627 | condensation, quinoline, imide, solvent-free, solid supports, green chemistry |
| 19 | Microwave-Assisted Preparation of Aryltetrazoleboronate Esters | Coats, S.J; Hlasta, D.J; Schulz, M.J. | 2004 | Org Lett, Vol 6, No 19, 2004, 3265-3268 | heterocycle, aryltetrazoleboronate ester, azido trimethylsilane, aryl nitrileboronate esters, 80 mL vessel |
| 20 | Fluorous Synthesis of Heterocyclic Systems | Zhang, W | 2004 | Chem Rev. 2004, 104, 2531-2556 | heterocycle, review, fluorous synthesis, stille, ugi, cross-coupling |

- 21 **Microwave-Assisted Parallel Synthesis of a 4,6-Diamino-2,2-dimethyl-1,2-dihydro-1-phenyl-s-triazine Library** Lee, H-K; Rana, T. 2004 J Combi Chem; 2004 6(4); 504-508 heterocycle, triazine, multi-component reaction, aniline, cyanoguanidine, acetone
- 22 **Facile syntheses of oxazolines and thiazolines with N-acylbenzotriazoles under microwave irradiation** Katritzky, AR; Cai, C; Suzuki, K; Singh, SK 2004 J. Org. Chem., 2004, 69, 811-814 heterocycles, oxazolines, thiazolines, N-acylbenzotriazoles
- 23 **Focused Microwave-Assisted Parallel Synthesis of bis-Benzimidazoles** Mei-Jung Lin, Chung-Ming Sun 2004 Synlett 2004, No. 4, 663-666 bis-benzimidazole, combinatorial chemistry, multi-step reaction, open vessel
- 24 **Microwave-Assisted Paal-Knorr Reaction. A Rapid Approach to Substituted Pyrroles and Furans** Minetto, G; Raveglia, LF; Taddei, M 2004 Org Lett, 2004, (6)3; 389-392 heterocycles, Paal-Knorr, pyrroles, furans, cyclization,
- 25 **Use of a Design of Experiment approach for the optimisation of a microwave assisted Ugi reaction** Heather Tye and Mark Whittaker 2004 Org Biomol Chem, 2004, 2, 813-815 Ugi, lactams, levulinic acid,
- 26 **A "catch and release" strategy for the parallel synthesis of 2,4,5-trisubstituted pyrimidines** Porcheddu, A; Giacomelli, G; De Luca, L; Ruda, AM 2004 J. Comb. Chem., 2004, 6, 105-111 cyclocondensation, pyrimidine, catch and release, solid support, open vessel
- 27 **Soluble polymer-supported synthesis of thioxotetraprimidinone by focused microwave irradiation** Sun, CM; Yeh, WB 2004 J. Comb. Chem., 2004, 6(2); 279-282 heterocycles, pyrimidinone, liquid phase combinatorial chemistry, cyclorelease, open vessel

- 28 **Liquid phase synthesis of chiral quinoxalinones by microwave irradiation** Tung, CL; Sun, CM 2004 Tetrahedron Lett., 2004, 45, 1159-62
- 29 **Microwave enhanced formation of electron rich arylboronates** Appukkuttan, P; Van der Eycken, E; **Dehaen, W** 2003 Synlett, 2003, 8, 1204-06 palladium, bis(pinacolato)diboron, arylboronates, indole, (hetero)aryl halide
- 30 **1,3-Dipolar cycloadditions of organic azides to ester or benzotriazolylcarbonyl activated acetylenic amides** **Alan R. Katritzky**, Yuming Zhang, Sandeep K. Singh, and Peter J. Steel 2003 ARKOVIC 2003 (xv) 47-64 heterocycles, cycloaddition, 1,2,3-Triazoles, bis-triazoles, simultaneous cooling-irradiation, azides
- 31 **Microwave-assisted heterocyclic synthesis** **Katritzky, AR**; Wang, Q. 2003 ARKOVIC 2003 (xiii) 68-86 heterocycles, review,
- 32 **Highly efficient synthesis of pyrimidines under microwave-assisted conditions** **Bagley, MC**; Hughes, DD; Taylor, PH 2003 Synlett, 2003, 2, 259-61 pyrimidines, heterocycles
- 33 **Microwave-assisted [3 + 2] cycloadditions of azomethine ylides** **Bashiardes, G**; Safir, I; Mohamed, AS; Barbot, F; Laduranty, J 2003 Org. Lett., 2003, 5, 4915-18 cycloaddition, azomethine ylides, pyrrolidines, pyrroles, heterocycles, condensations, O-alkylation, open vessel, solvent-free
- 34 **Intramolecular cyclization reactions of 5-halo- and 5-nitro-substituted furans** Crawford, KR; Bur, SK; Straub, CS; **Padwa, A** 2003 Org. Lett., 2003, 5, 3337-40 intramolecular cyclization, nitro substituted furans, pyridinone, simultaneous cooling-irradiation

- 35 **Cellulose beads: a new versatile solid support for microwave-assisted synthesis. Preparation of pyrazole and isoxazole libraries.** De Luca, L; Giacomelli, G; **Porcheddu, A**; M Salaris; Taddei, M 2003 J. Comb. Chem., 2003, 5, 465-71 heterocycles, pyrazole, isoxazole, solid support, cellulose, open vessel,
- 36 **Eco-friendly microwave-assisted scaleable synthesis of 2-cyanobenzothiazoles via N-arylimino-1,2,3-dithiazoles** Frere, S; Thiery, V; **Besson, T** 2003 Synth. Commun., 2003, 33, 3795-804 cyanobenzothiazole, heterocycles, solvent-free, graphite support, open vessel
- 37 **Novel 6-substituted benzothiazol-2-yl indolo[1,2-c]quinazolines and benzimidazo[1,2-c]quinazolines** Frere, S; Thiery, V; Bailly, C; **Besson, T** 2003 Tetrahedron, 2003, 59, 773-79 heterocycles, quinazolines, benzothiazole, benzoxazole, open vessel
- 38 **A method for generating nitrile oxides from nitroalkanes: a microwave assisted route for isoxazoles** **Giacomelli, G**; De Luca, L; Porcheddu, A 2003 Tetrahedron, 2003, 59, 5437-40 heterocycle, cycloaddition, isoxazoline, isoxazole, open vessel, solid-phase synthesis;
- 39 **Microwave-assisted solution-phase synthesis of 1,4,5-trisubstituted pyrazoles** **Giacomelli, G**; Porcheddu, A; Salaris, M; Taddei, M 2003 Eur. J. Org. Chem., 2003, 537-41 combinatorial chemistry, cyclization, heterocycle,
- 40 **Microwave-assisted multi-component synthesis of fused 3-aminoimidazoles** Ireland, SM; **Tye, H**; Whittaker, M 2003 Tetrahedron Lett., 2003, 44, 4369-71 heterocycle, aminoimidazole, Ugi, multi-component, scandium triflate
- 41 **Microwave-enhanced transition metal-catalyzed decoration of 2(1H)-pyrazinone** Bisztray, K; Dehaen, W; Kappe, O; Kaval, N; **Van der Eycken, E**; 2003 Molec. Diversity, 2003, 7, 125-133 cyanation, dechlorination, Heck, 2(1H)-pyrazinone, Sonogashira, Stille, Suzuki, palladium, cross-coupling, heterocycle

- 42 **Efficient synthesis of thiazoloquinazolinone derivatives** Francois-Rene Alexandre, Amaya Berecibar, Roger Wrigglesworth and **Thierry Besson** 2003 Tetrahedron Letters 44 (2003) 4455–4458 heterocycles, thiazoloquinazolinones, quinazolines, Appel's salt chemistry, open vessel
- 43 **Microwave-assisted traceless synthesis of thiohydantoin** Lin, MJ; **Sun, CM** 2003 Tetrahedron Lett., 2003, 44, 8739-42 heterocycle, thiohydantoin, liquid phase combinatorial chemistry, thiourea, cyclorelease, open vessel
- 44 **Studies on high-temperature amination reactions of aromatic chlorides using discrete palladium-N-heterocyclic carbene (NHC) complexes and in situ palladium/imidazolium salt protocols** McCarroll, AJ; Sandham, DA; Titcomb, LR; de K. Lewis, AK; Cloke, FGN; Davies, BP; de Santana, AP; Hiller, W; **Caddick, S** 2003 Molec. Diversity, 2003, 7, 115-23 amination, aromatic chlorides, imidazolium salts, palladium-N-heterocyclic carbene
- 45 **Novel series of 8H-quinazolino[4,3-b]quinazolin-8-ones via two Niementowski condensations** Francois-Rene Alexandre, Amaya Berecibar, Roger Wrigglesworth and **Thierry Besson** 2003 Tetrahedron 59 (2003) 1413–1419 heterocycles, solvent-free, Niementowski reaction, graphite support, quinazolinones, open vessel, fused ring systems, cyclization
- 46 **High-throughput catch-and-release synthesis of oxazoline hydroxamates, structure-activity relationships in novel inhibitors of *Escherichia coli* LpxC: in vitro enzyme inhibition and antibacterial properties** **Pirrung, MC**; Tumej, LN; McClerren, AL; Raetz, CRH 2003 J. Am. Chem. Soc., 2003, 125, 1575-86 oxazoline, Burgess' reagent, aliphatic acid chlorides
- 47 **A study of the synthesis of triazoles using microwave irradiation** **Savin, KA**; Robertson, M; Gernert, D; Green, S; Hembre, EJ; Bishop, J 2003 Molec. Diversity, 2003, 7, 171-74 heterocycle, cycloaddition, triazole, azide, acetylene
- 48 **Synthesis of pyridinyl-pyrimidines via Pd-catalyzed cross-coupling reactions: a comparison of classical thermal and microwave assisted reaction conditions** Stanetty, P; Schnurch, M; **Mihovilovic, MD** 2003 Synlett, 2003, 12, 1862-64

- 49 **Application of microwaves in organic synthesis: a rapid and efficient synthesis of new 3-aryl-2-imino-4-methyl-2,5-dihydrofurans and 3-aryl-3-2-(5H)-furanones.** Villemin, D; Liao, L 2003 Synth. Commun., 2003, 33, 1575-86
- 50 **Microwave enabled external carboxymethyl substituents in the ring-closing metathesis** Yang, C; Murray, WV; Wilson, LJ 2003 Tetrahedron Lett., 2003, 44, 1783-86 dihydropyrrole, dihydrofuran, cyclopentene, ring-closing metathesis, diolefin, external carboxymethyl substituent, Grubb's catalyst
- 51 **Microwave-enhanced liquid-phase synthesis of thiohydantoin and thioxotetrahydropyrimidinones** Yeh, WB; Lin, MJ; Lee, MJ; Sun, CM 2003 Molec. Diversity, 2003, 7, 185-98 heterocycle, thiohydantoin, pyrimidinone, liquid phase combinatorial chemistry, multi-step reaction, open vessel, cyclorelease
- 52 **Microwaves in drug discovery and multi-step synthesis** François-Ren Alexandre, Lisianne Domon, Stephane Frere, Alexandra Testard, Valerie Thiery and Thierry Besson 2003 Molec. Diversity, 2003, 7, 273-280 heterocycles, solvent-free, thiazoles, Niementowski reaction, graphite support, quinazolines
- 53 **Microwave-assisted Niementowski reaction. Back to the roots.** Alexandre, FR; Berecibar, A; Besson, T 2002 Tetrahedron Lett., 2002, 43, 3911-13 heterocycles, Niementowski reaction, quinazolinone, open vessel
- 54 **Microwave-assisted synthesis of 5-deaza-5,8-dihydropterins** Bagley, MC; Singh, N 2002 Synlett., 2002, 10, 1718-20 dihydropyridopyrimidines, heterocycles, Lewis acids, cyclocondensation, multi component reaction
- 55 **A new one-step synthesis of pyridines under microwave-assisted conditions** Bagley, MC; Lunn, R; Xiong, X 2002 Tetrahedron Lett., 2002, 43, 8331-34 pyridines, Bohlmann–Rahtz procedure, Bronsted acid, Lewis Acid, heterocycles

- 56 **The Claisen Rearrangement Followed by Phenol Oxidation: A Simple Route to Naturally Occuring Benzoquinones Including an Ansa-Bridged Derivative Related to Ansamycin Antibiotics** Davis, CJ; **Moody, CJ** 2002 Synlett 2002, No 11, Claisen rearrangement, phenols, oxidations, 1874-1876 benzoquinones, natural products,
- 57 **Biosynthesis inspired Diels-Alder route to pyridines: synthesis of the 2,3-dithiazolypyridine core of thiopeptide therapeutics** Alcaraz, L; Hughes, R A; **Moody, CJ**; Thompson, SP. 2002 Chem Comm, 2002, 1760-1761 Diels-Alder, pyridines, thiopeptides,
- 58 **Synthesis of C-carbamoyl-1,2,3-triazoles by microwave-induced 1,3-dipolar cycloaddition of organic azides to acetylenic amides** **Katritzky, AR**; Singh, SK 2002 J. Org. Chem., 2002, 67, 9077-79 heterocycles, cycloaddition, N-substituted triazoles, azides, acetylenic amides, solvent-free