

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 164) J. Franceus, J. Lormans, L. Cools, **M. D'hooghe**, T. Desmet. "Evolution of phosphorylases from *N*-acetylglucosaminidases in family GH3" *ACS Catal.* **2021**, *11*, 6225-6233. (IF 12.350, Q1, rank 12/159)
- 163) A. Theppawong, G. Kaur, V. Kumar, J. Van Camp, **M. D'hooghe**. "Synthetic strategies in curcumin chemistry focused on anticancer applications" *Arkivoc* **2020**, *vii*, 257-305. (IF 1.003, Q4, rank 45/57)
- 162) T. Van de Walle, M. Briand, A. Mitrović, I. Sosič, S. Gobec, J. Kos, L. Persoons, D. Daelemans, S. De Jonghe, Z. Ubiparip, T. Desmet, K. Van Hecke, S. Mangelinckx, **M. D'hooghe**. "Synthesis of novel nitroxoline analogs with potent cathepsin B exopeptidase inhibitory activity" *ChemMedChem* **2020**, *15*, 2477-2490. (IF 3.124, Q2, rank 25/61)
- 161) T. Van de Walle, M. Boone, J. Van Puyvelde, J. Combrinck, P. J. Smith, K. Chibale, S. Mangelinckx, **M. D'hooghe**. "Synthesis and biological evaluation of novel quinoline-piperidine scaffolds as antiplasmodium agents" *Eur. J. Med. Chem.* **2020**, *198*, 112330. (IF 5.572, Q1, rank 5/61)
- 160) L. Decuyper, G. Kaur, C. Versyck, E. Blondeel, Y. Depetter, K. Van Hecke, **M. D'hooghe**. "Expedient synthesis of lupulones and their derivatization to 2,8-7H-dihydrochromen-7-ones" *ChemistryOpen* **2020**, *9*, 442-444. (IF 2.370, Q3, rank 90/177)
- 159) L. Ouchakour, M. Nonn, **M. D'hooghe**, L. Kiss. "A de novo synthetic method to the access of fluorine-containing benzazepanes" *J. Fluorine Chem.* **2020**, *232*, 109466. (IF 2.332, Q2, rank 19/45)
- 158) A. Minić, T. Van de Walle, K. Van Hecke, J. Combrinck, P. J. Smith, K. Chibale, **M. D'hooghe**. "Design and synthesis of novel ferrocene-quinoline conjugates and evaluation of their electrochemical and antiplasmodium properties" *Eur. J. Med. Chem.* **2020**, *187*, 111963. (IF 4.833, Q1, rank 5/61)
- 157) L. Decuyper, M. Jukič, I. Sosič, A. M. Amoroso, O. Verlaine, B. Joris, S. Gobec, **M. D'hooghe**. "Synthesis and penicillin-binding protein inhibitory assessment of dipeptidic 4-phenyl- β -lactams from α -amino acid-derived imines" *Chem. Asian J.* **2020**, *15*, 51-55. (IF 3.698, Q2, rank 55/172)
- 156) T. Van de Walle, A. Theppawong, C. Grootaert, S. De Jonghe, L. Persoons, D. Daelemans, K. Van Hecke, J. Van Camp, **M. D'hooghe**. "Synthesis and cytotoxic evaluation of monocarbonyl curcuminoids and their pyrazoline derivatives" *Monatsh. Chem.* **2019**, *150*, 2045-2051. (IF 1.501, Q3, rank 112/172)
- 155) L. Decuyper, K. Magdalenic, M. Verstraete, M. Jukič, I. Sosič, E. Sauvage, A. M. Amoroso, O. Verlaine, B. Joris, S. Gobec, **M. D'hooghe**. " α -Unsaturated 3-amino-1-carboxymethyl- β -lactams as bacterial PBP inhibitors: synthesis and biochemical assessment" *Chem. Eur. J.* **2019**, *25*, 16128-16140. (IF 5.160, Q1, rank 37/172)
- 154) Y. Depetter, S. Geurs, J. Franceus, D. Knez, T. Desmet, K. De Bosscher, O. De Wever, S. Gobec, **M. D'hooghe**. "Synthesis of Indoline-Based Benzhydroxamic Acids as Potential HDAC6 Inhibitors" *ChemistrySelect* **2019**, *4*, 12308-12312. (IF 1.716, Q3, rank 107/172)
- 153) A. Theppawong, T. Van de Walle, K. Van Hecke, C. Grootaert, J. Van Camp, **M. D'hooghe**. "Synthesis of 1,4-thiazepane-based curcuminoids with promising anticancer activity" *Chem. Eur. J.* **2019**, *25*, 12583-12600. (IF 5.160, Q1, rank 37/172)
- 152) R. Van Kerrebroeck, P. Naert, T. S. A. Heugebaert, **M. D'hooghe**, C. V. Stevens. "Electrophilic Bromination in Flow: A Safe and Sustainable Alternative to the Use of Molecular Bromine in Batch" *Molecules* **2019**, *24*, 2116; doi:10.3390/molecules24112116. (IF 3.060, Q2, rank 68/172)
- 151) A. Theppawong, T. Van de Walle, C. Grootaert, K. Van Hecke, N. Catry, J. Van Camp, **M. D'hooghe**. "Synthesis of Non-symmetrical Nitrogen-containing Curcuminoids in the Pursuit of New Anticancer Candidates" *ChemistryOpen* **2019**, *8*, 236-247. (IF 2.205, Q3, rank 90/172)
- 150) Y. Depetter, S. Geurs, R. De Vreese, S. Goethals, E. Vandoorn, A. Laevens, J. Steenbrugge, E. Meyer, P. de Tullio, M. Bracke, **M. D'hooghe**, O. De Wever. "Selective pharmacological inhibitors of HDAC6 reveal biochemical activity but functional tolerance in cancer models" *Int. J. Cancer* **2019**, *145*, 735-747. (IF 4.982, Q1, rank 51/229)
- 149) L. Macha, **M. D'hooghe**, H-J. Ha. "Deployment of aziridines for the synthesis of alkaloids and their derivatives" *Synthesis* **2019**, *51*, 1491-1515. (IF 2.867, Q2, rank 18/57)
- 148) H. Dao Thi, **M. D'hooghe**. "An update on the synthesis and reactivity of spiro-fused β -lactams" *ARKIVOC* **2018**, *vi*, 314-347. (IF 1.253, Q3, rank 40/57)
- 147) L. Decuyper, J. Franceus, S. Dhaene, M. Debruyne, K. Vandoorne, N. Piens, G. Dewitte, T. Desmet, **M. D'hooghe**. "A chemoenzymatic approach toward the synthesis of 3-O-(α/β)-glucosylated 3-hydroxy- β -lactams" *ACS Omega* **2018**, *3*, 15235-15245. (IF 2.584, Q2, rank 76/172)
- 146) L. Decuyper, S. Deketelaere, L. Vanparys, M. Jukič, I. Sosič, E. Sauvage, A. M. Amoroso, O. Verlaine, B. Joris, S. Gobec, **M. D'hooghe**. "In silico design and enantioselective synthesis of functionalized monocyclic 3-amino-1-carboxymethyl- β -lactams as inhibitors of penicillin-binding proteins of resistant bacteria" *Chem. Eur. J.* **2018**, *24*, 15254-15266. (IF 5.317, Q1, rank 29/166)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 145) Y. Depetter, S. Geurs, F. Vanden Bussche, R. De Vreese, J. Franceus, T. Desmet, O. De Wever, **M. D'hooghe**. "Assessment of the trifluoromethyl ketone functionality as an alternative zinc-binding group for selective HDAC6 inhibition" *Med. Chem. Commun.* **2018**, 9, 1011-1016. (IF 2.608, Q2, rank 29/60)
- 144) A. Theppawong, T. Van de Walle, C. Grootaert, M. Bultinck, T. Desmet, J. Van Camp, **M. D'hooghe**. "Synthesis of novel aza-aromatic curcuminoids with improved biological activities towards various cancer cell lines" *ChemistryOpen* **2018**, 7, 381-392. (IF 2.918, Q2, rank 62/166)
- 143) J. Franceus, L. Decuyper, **M. D'hooghe**, T. Desmet. "Exploring the sequence diversity in glycoside hydrolase family 13_18 reveals a novel glucosylglycerol phosphorylase" *Appl. Microbiol. Biotechnol.* **2018**, 102, 3183-3191. (IF 3.420, Q2, rank 44/160)
- 142) H. Dao Thi, H. Goossens, D. Hertsen, V. Otte, T. Van Nguyen, V. Van Speybroeck, **M. D'hooghe**. "Formation of fluorinated amido esters through unexpected C3-C4 bond fission in 4-trifluoromethyl-3-oxo- β -lactams" *Chem. Asian J.* **2018**, 13, 421-431. (IF 4.083, Q1, rank 40/166)
- 141) H. Dao Thi, G. Le Nhat Thuy, S. Catak, V. Van Speybroeck, T. Van Nguyen, **M. D'hooghe**. "Use of 3-hydroxy-4-(trifluoromethyl)azetidin-2-ones as building blocks for the preparation of trifluoromethyl-containing aminopropanes, 1,3-oxazinan(-2-ones), aziridines and 1,4-dioxan-2-ones" *Synthesis* **2018**, 50, 1439-1456. (IF 2.650, Q2, rank 22/59) – Feature Article
- 140) E. B. Boydas, G. Tanriver, **M. D'hooghe**, H.-J. Ha, V. Van Speybroeck, S. Catak. "Theoretical Insight into the Regioselective Ring-Expansions of Bicyclic Aziridinium Ions" *Org. Biomol. Chem.* **2018**, 16, 796-806. (IF 3.564, Q1, rank 14/59)
- 139) H. Dao Thi, T. Van Nguyen, **M. D'hooghe**. "Synthesis and reactivity of 4-(trifluoromethyl)azetidin-2-ones" *Monatsh. Chem.* **2018**, 149, 687-700. (IF 1.282, Q3, rank 106/166)
- 138) L. Decuyper, M. Jukić, I. Sosić, A. Žula, **M. D'hooghe**, S. Gobec. "Antibacterial and β -lactamase inhibitory activity of monocyclic β -lactams" *Med. Res. Rev.* **2017**, 37, 426-503. (IF 9.135, Q1, rank 2/59)
- 137) N. Piens, H. Goossens, D. Hertsen, S. Deketelaere, L. Crul, L. Demeurisse, J. De Moor, E. Van den Broeck, K. Mollet, K. Van Hecke, V. Van Speybroeck, **M. D'hooghe**. "Reactivity of 3-oxo- β -lactams with respect to primary amines – an experimental and computational approach" *Chem. Eur. J.* **2017**, 23, 18002-18009. (IF 5.317, Q1, rank 29/166)
- 136) A. Minić, D. Stevanović, M. Vukićević, G. A. Bogdanović, **M. D'hooghe**, N. S. Radulović, R. D. Vukićević. "Synthesis of novel 4-ferrocenyl-1,2,3,4-tetrahydroquinolines and 4-ferrocenylquinolines via α -ferrocenyl carbenium ions as key intermediates" *Tetrahedron* **2017**, 73, 6268-6274. (IF 2.651, Q2, rank 21/59)
- 135) J. Dolfen, E. Birsén Boydas, V. Van Speybroeck, S. Catak, K. Van Hecke, **M. D'hooghe**. "Asymmetric synthesis of 3,4-disubstituted 2-(trifluoromethyl)pyrrolidines through rearrangement of chiral 2-(2,2,2-trifluoro-1-hydroxyethyl)azetidines" *J. Org. Chem.* **2017**, 82, 10092-10109. (IF 4.849, Q1, rank 8/59)
- 134) R. De Vreese, K. Muylaert, C. Maton, L. Dereu, F. Taillieu, T. Harth, R. Van Deun, H. Vrielinck, C. V. Stevens, **M. D'hooghe**. "Synthesis of bis-8-hydroxyquinolines via an imination or a Suzuki-Miyaura coupling approach" *Tetrahedron Lett.* **2017**, 58, 3803-3807. (IF 2.193, Q2, rank 26/59)
- 133) N. Piens, **M. D'hooghe**. "Carbonylation of aziridines as a powerful tool for the synthesis of functionalized β -lactams" *Eur. J. Org. Chem.* **2017**, 5943-5960 (IF 2.834, Q2, rank 19/59)
- 132) J. Dolfen, K. Van Hecke, **M. D'hooghe**. "LiAlH₄-induced Thia-Aza-Payne Rearrangement of Functionalized 2-(Thiocyanatomethyl)aziridines into 2-(Aminomethyl)thiiranes as an Entry to 5-(Chloromethyl)thiazolidin-2-ones" *Eur. J. Org. Chem.* **2017**, 3229-3233 (IF 3.068, Q2, rank 17/59)
- 131) N. Piens, K. Van Hecke, D. Vogt, **M. D'hooghe**. "Cobalt carbonyl-catalyzed carbonylation of functionalized aziridines to versatile β -lactam building blocks" *Org. Biomol. Chem.* **2017**, 15, 4816-4821 (IF 3.559, Q1, rank 14/59)
- 130) R. De Vreese, **M. D'hooghe**. "Synthesis and applications of benzohydroxamic acid-based histone deacetylase inhibitors" *Eur. J. Med. Chem.* **2017**, 135, 174-195. (IF 3.902, Q1, rank 6/59)
- 129) S. Deketelaere, T. Van Nguyen, C. V. Stevens, **M. D'hooghe**. "Synthetic approaches toward monocyclic 3-amino- β -lactams" *ChemistryOpen* **2017**, 6, 301-319. (IF 3.585, Q2, rank 43/163)
- 128) R. De Vreese, C. de Kock, P. J. Smith, K. Chibale, **M. D'hooghe**. "Exploration of thiaheterocyclic hHDAC6 inhibitors as potential antiparasitic agents" *Future Med. Chem.* **2017**, 9, 357-364 (IF 3.345, Q1, rank 13/59)
- 127) J. Dolfen, **M. D'hooghe**. "Concise synthesis of 3-(aminomethyl)pyrrolizidines via an In(OTf)₃-mediated ring rearrangement of 2-[2-(1-pyrrolin-2-yl)alkyl]aziridines" *Synthesis* **2017**, 49, 2215-2222. (IF 2.652, Q2, rank 21/59)
- 126) R. De Vreese, L. Galle, Y. Depetter, J. Franceus, T. Desmet, K. Van Hecke, V. Benoy, L. Van Den Bosch, **M. D'hooghe**. "Synthesis of potent and selective HDAC6 inhibitors bearing a cyclohexane- or cycloheptane-annulated 1,5-benzothiazepine scaffold" *Chem. Eur. J.* **2017**, 23, 128-136. (IF 5.771, Q1, rank 24/163)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 125) N. Piens, W. Aelterman, **M. D'hooghe**, N. De Kimpe. "Use of alfa,omega-dichloroketimine building blocks for the construction of 1-azabicyclo[3.1.0]hexanes, piperidines, pyridines, pyrroles and tetrahydroindoles" *Synlett* **2017**, 28, 207-213 (IF 2.323, Q2, rank 27/59).
- 124) N. Piens, S. De Craene, J. Franceus, K. Mollet, K. Van Hecke, T. Desmet, **M. D'hooghe**. "Diastereoselective synthesis of 3-acetoxy-4-(3-aryloxiran-2-yl)azetidin-2-ones and their transformation into 3,4-oxolane-fused bicyclic β -lactams" *Org. Biomol. Chem.* **2016**, 14, 11279-11288 (IF 3.559, Q1, rank 14/59)
- 123) A. Theppawong, R. De Vreese, L. Vannecke, C. Grootaert, J. Van Camp, **M. D'hooghe**. "Synthesis and biological assessment of novel N-(hydroxy/methoxy)alkyl β -enaminone curcuminoids" *Bioorg. Med. Chem. Lett.* **2016**, 26, 5650-5656. (IF 2.486, Q2, rank 23/59)
- 122) H. Dao Thi, B. Danneels, T. Desmet, K. Van Hecke, T. Van Nguyen, **M. D'hooghe**. "Synthesis and application of 3-methylene-4-(trifluoromethyl)azetidin-2-ones as novel building blocks for the preparation of mono- and spirocyclic 4-CF₃- β -lactams" *Asian J. Org. Chem.* **2016**, 5, 1480-1491. (IF 3.275, Q2, rank 16/59)
- 121) J. Dolfen, N. N. Yadav, N. De Kimpe, **M. D'hooghe**, H.-J. Ha. "Bicyclic aziridinium ions in azaheterocyclic chemistry – preparation and synthetic application of 1-azoniabicyclo[n.1.0]alkanes" *Adv. Synth. Catal.* **2016**, 358, 3485-3511. (IF 6.453, Q1, rank 1/71)
- 120) R. De Vreese, C. Grootaert, S. D'hoore, A. Theppawong, S. Van Damme, M. Van Bogaert, J. Van Camp, **M. D'hooghe**. "Synthesis of novel curcuminoids accommodating a central beta-enaminone motif and their impact on cell growth and oxidative stress" *Eur. J. Med. Chem.* **2016**, 123, 727-736. (IF 3.902, Q1, rank 6/59)
- 119) L. Decuyper, N. Piens, J. Mincke, J. Bomon, B. De Schrijver, K. Mollet, K. De Winter, T. Desmet, **M. D'hooghe**. "A nitrilase-mediated entry to 4-carboxymethyl- β -lactams from chemically prepared 4-(cyanomethyl)azetidin-2-ones" *RSC Adv.* **2016**, 6, 54573-54579. (IF 3.289, Q2, rank 48/163)
- 118) T. Verhaeghe, K. De Winter, M. Berland, R. De Vreese, **M. D'hooghe**, B. Offmann, T. Desmet. "Converting bulk sugars into prebiotics: semi-rational design of a transglucosidase with controlled selectivity" *Chem. Commun.* **2015**, 3687-3689. (IF 6.834, Q1)
- 117) J. Dolfen, K. Vervisch, N. De Kimpe, **M. D'hooghe**. "LiAlH₄-induced Selective Ring Rearrangement of 2-(2-Cyanoethyl)aziridines toward 2-(Aminomethyl)pyrrolidines and 3-Aminopiperidines as Eligible Heterocyclic Building Blocks" *Chem. Eur. J.* **2016**, 22, 4945-4951. (IF 5.731, Q1)
- 116) R. De Vreese, Y. Depetter, T. Verhaeghe, T. Desmet, V. Benoy, W. Haeck, L. Van Den Bosch, **M. D'hooghe**. "Synthesis and SAR assessment of novel Tubathian analogs in the pursuit of potent and selective HDAC6 inhibitors" *Org. Biomol. Chem.* **2016**, 14, 2537-2549 (IF 3.562, Q1)
- 115) J. Dolfen, N. De Kimpe, **M. D'hooghe** "Deployment of small-ring azaheterocycles as building blocks for the synthesis of organofluorine compounds" *Synlett* **2016**, 27, 1486-1510 (IF 2.419, Q2).
- 114) H. Dao Thi, L. Decuyper, K. Mollet, S. Kenis, N. De Kimpe, T. Van Nguyen, **M. D'hooghe** "Synthesis of trifluoromethylated azetidines, aminopropanes, 1,3-oxazinanes and 1,3-oxazinan-2-ones starting from 4-trifluoromethyl- β -lactam building blocks" *Synlett* **2016**, 27, 1100-1105. (IF 2.419, Q2).
- 113) T. Pham Thi, L. Decuyper, T. Luc Quang, C. Pham The, T. A. Dang Thi, H. Thanh Nguyen, T. G. Le Nhat, T. Nguyen Thanh, P. Hoang Thi, **M. D'hooghe**, T. Van Nguyen "Synthesis and cytotoxic evaluation of novel indenoisoquinoline-propan-2-ol hybrids" *Tetrahedron Lett.* **2016**, 57, 466-471. (IF 2.379, Q2)
- 112) T. A. Dang Thi, L. Decuyper, H. Thi Phuong, D. Vu Ngoc, H. Thanh Nguyen, T. Thanh Nguyen, T. Do Huy, H. Huy Nguyen, **M. D'hooghe**, T. Van Nguyen. "Synthesis and cytotoxic evaluation of novel dihydrobenzo[h]cinnoline-5,6-diones" *Tetrahedron Lett.* **2015**, 56, 5855-5858. (IF 2.379, Q2)
- 111) T. A. Dang Thi, T. H. Vu Thi, H. Thi Phuong, T. Ha Nguyen, C. Pham The, C. Vu Duc, Y. Depetter, T. Van Nguyen, **M. D'hooghe**. "Synthesis and anticancer properties of new (dihydro)pyranonaphthoquinones and their epoxy analogs" *Bioorg. Med. Chem. Lett.* **2015**, 25, 3355-3358. (IF 2.420, Q2)
- 110) R. De Vreese, N. Van Steen, T. Verhaeghe, T. Desmet, N. Bougarne, K. De Bosscher, V. Benoy, W. Haeck, L. Van Den Bosch, **M. D'hooghe**. "Synthesis of benzothiophene-based hydroxamic acids as potent and selective HDAC6 inhibitors" *Chem. Commun.* **2015**, 9868-9871. (IF 6.834, Q1)
- 109) T. A. Dang Thi, Y. Depetter, K. Mollet, H. Thi Phuong, D. Vu Ngoc, C. Pham The, H. Thanh Nguyen, T. H. Nguyen Thi, H. Huy Nguyen, **M. D'hooghe**, T. Van Nguyen. "Expedient stereoselective synthesis of new dihydropyrano- and dihydrofuranonaphthoquinones" *Tetrahedron Lett.* **2015**, 56, 2422-2425. (IF 2.379, Q2)
- 108) A. Pejović, B. Danneels, T. Desmet, B. Thi Cham, T. Van Nguyen, N. S. Radulović, R. D. Vukićević, **M. D'hooghe**. "Synthesis and antimicrobial/cytotoxic assessment of ferrocenyl oxazinanes, oxazinan-2-ones and tetrahydropyrimidin-2-ones" *Synlett* **2015**, 26, 1195-1200 (IF 2.419, Q2)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 107) K. Mollet, L. Decuyper, S. Vander Meeren, N. Piens, K. Dewinter, T. Desmet, **M. D'hooghe**. "Synthesis of 2-aryl-3-(2-cyanoethyl)aziridines and their chemical and enzymatic hydrolysis towards gamma-lactams and gamma-lactones" *Org. Biomol. Chem.* **2015**, *13*, 2716-2725. (IF 3.562, Q1)
- 106) S. Vandekerckhove, S. Van Herreweghe, J. Willems, B. Danneels, T. Desmet, C. de Kock, P. J. Smith, K. Chibale, **M. D'hooghe**. "Synthesis of functionalized 3-, 5-, 6- and 8-aminoquinolines via intermediate (3-pyrrolin-1-yl)- and (2-oxopyrrolidin-1-yl)quinolines and evaluation of their antiplasmodial and antifungal activity" *Eur. J. Med. Chem.* **2015**, *92*, 91-102. (SCI IF 3.432, Q1)
- 105) S. Vandekerckhove, **M. D'hooghe**. "Quinoline-based antimalarial hybrid compounds" *Bioorg. Med. Chem.* **2015**, *23*, 5098-5119. (SCI IF 2.951, Q2)
- 104) T. A. Dang Thi, N. T. Kim Tuyet, C. Pham The, H. T. Nguyen, C. Ba Thi, H. Thi Phuong, L. Van Boi, T. Van Nguyen, **M. D'hooghe**. "Synthesis and cytotoxic evaluation of novel amide-triazole-linked triterpenoid-AZT conjugates" *Tetrahedron Lett.* **2015**, *56*, 218-224. (SCI IF 2.391, Q2)
- 103) T. A. Dang Thi, N. T. Kim Tuyet, C. Pham The, H. T. Nguyen, C. Ba Thi, T. Doan Duy, **M. D'hooghe**, T. Van Nguyen. "Synthesis and cytotoxic evaluation of novel ester-triazole-linked triterpenoid-AZT conjugates" *Bioorg. Med. Chem. Lett.* **2014**, *24*, 5190-5194. (SCI IF 2.331, Q2)
- 102) C. Chen, J. Van der Borgh, R. De Vreese, **M. D'hooghe**, W. Soetaert, T. Desmet. "Engineering the Specificity of Trehalose Phosphorylase as a General Strategy for the Production of Glycosyl Phosphates" *Chem. Commun.* **2014**, 7834-7836. (SCI IF 6.718, Q1)
- 101) A. Pejović, M. S. Denić, D. Stevanović, I. Damjanović, M. Vukićević, K. Kostova, M. Tavlinova-Kirilova, P. Randjelović, N. M. Stojanović, G. A. Bogdanović, P. Blagojević, **M. D'hooghe**, N. S. Radulović, R. D. Vukićević. "Discovery of anxiolytic 2-ferrocenyl-1,3-thiazolidin-4-ones exerting GABAA receptor interaction via the benzodiazepine-binding site" *Eur. J. Med. Chem.* **2014**, *83*, 57-73 (SCI IF 3.432, Q1)
- 100) M. Moens, N. De Kimpe, **M. D'hooghe**. "Selective synthesis of cis- and trans-2-methyl/phenyl-3-(trifluoromethyl)aziridines and their regio- and stereospecific ring opening" *J. Org. Chem.* **2014**, *79*, 5558-5568. (SCI IF 4.638, Q1)
- 99) N. Piens, R. De Vreese, N. De Neve, K. Van Hecke, J. Balzarini, N. De Kimpe, **M. D'hooghe**. "Synthesis of novel thymine- β -lactam hybrids and evaluation of their antitumor activity" *Synthesis* **2014**, *46*, 2436-2444. (SCI IF 2.443, Q2)
- 98) M.-K. Ji, D. Hertsen, D.-H. Yoon, H. Eum, H. Goossens, M. Waroquier, V. Van Speybroeck, **M. D'hooghe**, N. De Kimpe and H.-J. Ha. "Nucleophile-Dependent Regio- and Stereoselective Ring Opening of 1-azoniabicyclo[3.1.0]hexane Tosylate" *Chem. Asian. J.* **2014**, *9*, 1060-1067. (SCI IF 4.572, Q1)
- 97) J. Dolfen, S. Kenis, K. Van Hecke, N. De Kimpe, and **M. D'hooghe**. "Selective synthesis of functionalized trifluoromethylated pyrrolidines, piperidines and azepanes starting from 1-tosyl-2-(trifluoromethyl)aziridine" *Chem. Eur. J.* **2014**, *20*, 10650-10653. (SCI IF 5.831, Q1)
- 96) S. Vandekerckhove, T. Desmet, H. G. Tran, C. De Kock, P. J. Smith, K. Chibale and **M. D'hooghe**. "Synthesis of halogenated 4-quinolones and evaluation of their antiplasmodial activity" *Bioorg. Med. Chem. Lett.* **2014**, *24*, 1214-1217. (SCI IF 2.338, Q2)
- 95) S. Stanković, **M. D'hooghe**, T. Vanderhaegen, K. Abbaspour Tehrani and N. De Kimpe. "Application of 3-bromo-3-ethylazetidines and 3-ethylideneazetidines for the synthesis of functionalized azetidines" *Synlett* **2014**, *25*, 75-80. (SCI IF 2.655, Q2)
- 94) M. Moens, **M. D'hooghe** and N. De Kimpe. "A convenient approach towards the 1-aminomethyl-1-fluorocycloalkane scaffold" *Tetrahedron Lett.* **2013**, *54*, 6110-6113. (SCI IF 2.397, Q2)
- 93) S. Vandekerckhove, H. G. Tran, T. Desmet and **M. D'hooghe**. "Evaluation of (4-aminobutyloxy)quinolines as a novel class of antifungal agents" *Bioorg. Med. Chem. Lett.* **2013**, *23*, 4641-4643. (SCI IF 2.338, Q2)
- 92) S. Vandekerckhove and **M. D'hooghe**. "Exploration of aziridine- and β -lactam-based hybrids as both bioactive substances and synthetic intermediates in medicinal chemistry" *Bioorg. Med. Chem.* **2013**, *21*, 3643-3647. (SCI IF 2.921, Q2)
- 91) R. De Vreese, T. Verhaeghe, T. Desmet, and **M. D'hooghe**. "Potent and selective HDAC6 inhibitory activity of N-(4-hydroxycarbamoylbenzyl)-1,2,4,9-tetrahydro-3-thia-9-azafluorenes as novel sulfur analogues of Tubastatin A" *Chem. Commun.* **2013**, 3775-3777. (SCI IF 6.378, Q1)
- 90) S. Kenis, **M. D'hooghe**, G. Verniest, M. Reybroeck, T. A. Dang Thi, C. Pham The, T. Thi Pham, K. W. Törnroos, T. Van Nguyen, N. De Kimpe. "Nucleophile-directed selective transformation of cis-1-tosyl-2-tosyloxymethyl-3-(trifluoromethyl)aziridine into aziridines, azetidines and benzo-fused dithianes, oxathianes, dioxanes and (thio)morpholines" *Chem. Eur. J.* **2013**, *19*, 5966-5971. (SCI IF 5.831, Q1)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 89) S. Vandekerckhove, S. De Moor, D. Segers, C. De Kock, P. J. Smith, K. Chibale, N. De Kimpe and **M. D'hooghe**. "Synthesis and antiplasmodial evaluation of aziridine-(iso)quinoline hybrids and their ring-opening products" *Med. Chem. Commun.* **2013**, 4, 724-730. (SCI IF 2.800, Q2)
- 88) K. Mollet, **M. D'hooghe**, L. Broeckx, B. Danneels, T. Desmet, and N. De Kimpe. "Synthesis of piperidin-4-ones starting from 2-(2-bromo-1,1-dimethylethyl)azetidines and 2-(2-mesyloxyethyl)azetidines through a ring expansion-oxidation protocol" *Tetrahedron* **2013**, 69, in 2603-2607. (SCI IF 3.025, Q2)
- 87) K. Mollet, **M. D'hooghe**, and N. De Kimpe. "Synthesis of six-membered azaheterocycles by means of the beta-lactam synthon method" *Mini-Rev. Org. Chem.* **2013**, 10, 1-11. (SCI IF 2.406, Q2)
- 86) **M. D'hooghe**, K. Vervisch, K. W. Törnroos, T. Verhaeghe, T. Desmet, C. Lategan, P. J. Smith, K. Chibale, and N. De Kimpe. "Synthesis of 2-aminomethyl-1-azabicyclo[2.2.1]heptanes and evaluation of their antimalarial activity" *Bioorg. Med. Chem. Lett.* **2013**, 23, 1507-1510. (SCI IF 2.554, Q2)
- 85) K. Mollet, H. Goossens, N. Piens, S. Catak, M. Waroquier, K. W. Törnroos, V. Van Speybroeck, **M. D'hooghe**, and N. De Kimpe. "Synthesis of 2-hydroxy-1,4-oxazin-3-ones through ring transformation of 3-hydroxy-4-(1,2-dihydroxyethyl)-beta-lactams and study of their reactivity" *Chem. Eur. J.* **2013**, 19, 3383-3396. (SCI IF 5.925, Q1)
- 84) G. S. Singh, K. Mollet, **M. D'hooghe**, and N. De Kimpe. "Epihalohydrins in organic synthesis" *Chem. Rev.* **2013**, 113, 1441-1498. (SCI IF 40.197, Q1)
- 83) S. Vandekerckhove, C. Müller, D. Vogt, C. Lategan, P. J. Smith, K. Chibale, N. De Kimpe and **M. D'hooghe**. "Synthesis and antiplasmodial evaluation of novel (4-aminobutyloxy)quinolines" *Bioorg. Med. Chem. Lett.* **2013**, 23, 318-322. (SCI IF 2.554, Q2)
- 82) S. Kenis, **M. D'hooghe**, G. Verniest, T. A. Dang Thi, C. Pham The, T. Van Nguyen, N. De Kimpe. "Synthesis of 1-alkyl-2-(trifluoromethyl)azetidines and their regiospecific ring opening toward diverse alpha-(trifluoromethyl)amines via intermediate azetidinium salts" *J. Org. Chem.* **2012**, 77, 5982-5992. (SCI IF 4.450, Q1)
- 81) **M. D'hooghe**, K. Mollet, R. De Vreese, T. H. M. Jonckers, G. Dams, and N. De Kimpe. "Design, synthesis and antiviral evaluation of purine-beta-lactam and purine-aminopropanol hybrids" *J. Med. Chem.* **2012**, 55, 5637-5641. (SCI IF 5.248, Q1)
- 80) R. De Vreese and **M. D'hooghe**. "N-Heterocyclic carbene/Brønsted acid cooperative catalysis as a powerful tool in organic synthesis" *Beilstein J. Org. Chem.* **2012**, 8, 398-402. (SCI IF 2.517, Q2)
- 79) S. Stanković, H. Goossens, S. Catak, M. Tezcan, M. Waroquier, V. Van Speybroeck, **M. D'hooghe**, and N. De Kimpe. "Solvent-Controlled Selective Transformation of 2-Bromomethyl-2-methylaziridines to Functionalized Aziridines and Azetidines" *J. Org. Chem.* **2012**, 77, 3181-3190. (SCI IF 4.450, Q1)
- 78) K. Vervisch, **M. D'hooghe**, K. W. Törnroos and N. De Kimpe. "Radical-mediated nitrile translocation as the key step in the stereoselective transformation of 2-(4-chloro-2-cyanobutyl)aziridines to methyl *cis*-(1-arylmethyl-4-phenylpiperidin-2-yl)acetates" *Org. Biomol. Chem.* **2012**, 10, 3308-3314. (SCI IF 3.696, Q1)
- 77) K. Mollet, **M. D'hooghe** and N. De Kimpe. "Stereoselective synthesis of bicyclic tetrahydrofuran-fused beta-lactams and their conversion into methyl *cis*-3-aminotetrahydrofuran-2-carboxylates" *Tetrahedron* **2012**, 68, 10787-10793. (SCI IF 3.025, Q2)
- 76) S. Dekeukeleire, **M. D'hooghe**, M. Vanwalleghem, W. Van Brabandt and N. De Kimpe. "Asymmetric synthesis of 4-formyl-1-(omega-haloalkyl)-beta-lactams and their transformation to functionalized piperazines and 1,4-diazepanes" *Tetrahedron* **2012**, 68, 10827-10834. (SCI IF 3.025, Q2)
- 75) H. G. Tran, T. Desmet, K. Saerens, H. Waegeman, S. Vandekerckhove, **M. D'hooghe**, I. Van Bogaert, W. Soetaert. "Biocatalytic production of novel glycolipids with cellodextrin phosphorylase" *Bioresource Technol.* **2012**, 115, 84-87. (SCI IF 4.980, Q1)
- 74) K. Vervisch, **M. D'hooghe**, F. P. J. T. Rutjes and N. De Kimpe. "Chemical and enzymatic synthesis of 2-(2-carbamoyl-ethyl)- and 2-(2-carboxyethyl)aziridines and their conversion into delta-lactams and gamma-lactones" *Org. Lett.* **2012**, 14, 106-109. (SCI IF 5.862, Q1)
- 73) S. Stanković, **M. D'hooghe**, S. Catak, H. Eum, M. Waroquier, V. Van Speybroeck, N. De Kimpe and H.-J. Ha. "Regioselectivity in the Ring Opening of Non-Activated Aziridines" *Chem. Soc. Rev.* **2012**, 41, 643-665. (SCI IF 28.760, Q1)
- 72) K. Mollet, L. Broeckx, **M. D'hooghe** and N. De Kimpe. "Synthesis of stereodefined 3,4-disubstituted piperidines through rearrangement of 2-(2-bromo-1,1-dimethylethyl)azetidines" *Heterocycles* **2012**, 84, 431-447. (SCI IF 0.999, Q3)
- 71) S. Stanković, **M. D'hooghe**, K. Abbaspour Tehrani, and N. De Kimpe. "Synthesis of 3-functionalized 3-methylazetidines" *Tetrahedron Lett.* **2012**, 53, 107-110. (SCI IF 2.683, Q2)
- 70) **M. D'hooghe**, S. Vandekerckhove, K. Mollet, K. Vervisch, S. Dekeukeleire, L. Lehoucq, C. Lategan, P. J. Smith, K. Chibale, and N. De Kimpe. "Synthesis of 2-amino-3-arylpropan-1-ols and 1-(2,3-diaminopropyl)-1,2,3-triazoles and evaluation of their antimalarial activity" *Beilstein J. Org. Chem.* **2011**, 7, 1745-1752. (SCI IF 2.517, Q2)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 69) H. Goossens, K. Vervisch, S. Catak, S. Stanković, **M. D'hooghe**, F. De Proft, P. Geerlings, N. De Kimpe, M. Waroquier, and V. Van Speybroeck. "Reactivity of Activated *versus* Non-activated 2-(Bromomethyl)aziridines with respect to Sodium Methoxide: a Combined Computational and Experimental Study" *J. Org. Chem.* **2011**, *76*, 8698–8709. (SCI IF 4.450, Q1)
- 68) K. Mollet, S. Catak, M. Waroquier, V. Van Speybroeck, **M. D'hooghe** and N. De Kimpe. "Stereoselective synthesis of *cis*-3,4-disubstituted piperidines through ring transformation of 2-(2-mesyloxyethyl)azetidines" *J. Org. Chem.* **2011**, *76*, 8364–8375. (SCI IF 4.450, Q1)
- 67) S. Kenis, **M. D'hooghe**, G. Verniest, V. D. Nguyen, T. A. Dang Thi, T. Van Nguyen, N. De Kimpe. "Straightforward synthesis of 1-alkyl-2-(trifluoromethyl)aziridines starting from 1,1,1-trifluoroacetone" *Org. Biomol. Chem.* **2011**, *9*, 7217–7223. (SCI IF 3.696, Q1)
- 66) S. Stanković, **M. D'hooghe**, J. Dewulf, P. Bogaert, R. Jolie, N. De Kimpe. "Synthesis and reactivity of non-activated 2-(chloromethyl)aziridines" *Tetrahedron Lett.* **2011**, *52*, 4529–4532. (SCI IF 2.683, Q2)
- 65) E. Leemans, **M. D'hooghe**, and N. De Kimpe. "Ring expansion of cyclobutylmethylcarbenium ions to cyclopentane or cyclopentene derivatives and metal-promoted analogous rearrangements" *Chem. Rev.* **2011**, *111*, 3268–3333. (SCI IF 40.197, Q1)
- 64) S. Stanković, S. Catak, **M. D'hooghe**, H. Goossens, K. Abbaspour Tehrani, P. Bogaert, M. Waroquier, V. Van Speybroeck, and N. De Kimpe. "Synthesis of 3-methoxyazetidines via an aziridine to azetidine rearrangement and theoretical rationalization of the reaction mechanism" *J. Org. Chem.* **2011**, *76*, 2157–2167. (SCI IF 4.450, Q1)
- 63) G. S. Singh, **M. D'hooghe** and N. De Kimpe. "Synthesis and Reactivity of Spiro-fused beta-Lactams" *Tetrahedron* **2011**, *67*, 1989–2012. (SCI IF 3.025, Q2)
- 62) **M. D'hooghe**, S. Kenis, K. Vervisch, C. Lategan, P. J. Smith, K. Chibale, and N. De Kimpe. "Synthesis of 2-(aminomethyl)aziridines and their microwave-assisted ring opening to 1,2,3-triaminopropanes as novel antimalarial pharmacophores" *Eur. J. Med. Chem.* **2011**, *46*, 579–587. (SCI IF 3.346, Q1)
- 61) K. Mollet, **M. D'hooghe** and N. De Kimpe. "Transformation of *trans*-4-aryl-3-chloro-1-(2-chloroethyl)azetidin-2-ones into 3-aryl-2-(ethylamino)propan-1-ols *via* intermediate 1-(1-aryl-2-chloro-3-hydroxypropyl)aziridines and *trans*-2-aryl-3-(hydroxymethyl)-aziridines" *J. Org. Chem.* **2011**, *76*, 264–269. (SCI IF 4.450, Q1)
- 60) K. Vervisch, **M. D'hooghe**, K. W. Törnroos, and N. De Kimpe. "Synthesis of stereodefined piperidines from aziridines and their transformation into conformationally constrained amino acids, amino alcohols and 2,7-diazabicyclo[3.3.1]nonanes" *J. Org. Chem.* **2010**, *75*, 7734–7744. (SCI IF 4.002, Q1)
- 59) S. Stanković, **M. D'hooghe**, and N. De Kimpe. "Microwave-assisted regioselective ring opening of non-activated aziridines by lithium aluminium hydride" *Org. Biomol. Chem.* **2010**, *8*, 4266–4273. (SCI IF 3.451, Q1)
- 58) S. Dekeukeleire, **M. D'hooghe**, K. W. Törnroos, and N. De Kimpe. "Stereoselective synthesis of chiral 4-(1-chloroalkyl)-beta-lactams starting from amino acids and their transformation into functionalized chiral azetidines and pyrrolidines" *J. Org. Chem.* **2010**, *75*, 5934–5940. (SCI IF 4.002, Q1)
- 57) S. Catak, **M. D'hooghe**, T. Verstraelen, K. Hemelsoet, A. Van Nieuwenhove, H.-J. Ha, M. Waroquier, N. De Kimpe, and V. Van Speybroeck. "Opposite Regiospecific Ring Opening of 2-(cyanomethyl)aziridines by Hydrogen Bromide and Benzyl Bromide – Experimental Study and Theoretical Rationalization" *J. Org. Chem.* **2010**, *75*, 4530–4541. (SCI IF 4.002, Q1)
- 56) **M. D'hooghe**, S. Catak, S. Stankovic, M. Waroquier, Y. Kim, H.-J. Ha, V. Van Speybroeck, and N. De Kimpe. "Systematic study of halide-induced ring opening of 2-substituted aziridinium salts and theoretical rationalization of the reaction pathways" *Eur. J. Org. Chem.* **2010**, 4920–4931. (SCI IF 3.206, Q1)
- 55) S. Dekeukeleire, **M. D'hooghe**, C. Müller, D. Vogt, and N. De Kimpe. "Rhodium-catalysed hydroformylation of *N*-(2-propenyl)-beta-lactams as a key step in the synthesis of functionalised *N*-[4-(2-oxoazetidin-1-yl)-but-1-enyl]acetamides" *New J. Chem.* **2010**, *34*, 1079–1083. (SCI IF 2.631, Q2)
- 54) S. Catak, **M. D'hooghe**, N. De Kimpe, M. Waroquier, and V. Van Speybroeck. "Intramolecular pi-pi Stacking Interactions in 2-Substituted N,N-Dibenzylaziridinium Ions and Their Regioselectivity in Nucleophilic Ring-Opening Reactions" *J. Org. Chem.* **2010**, *75*, 885–896. (SCI IF 4.002, Q1)
- 53) **M. D'hooghe**, S. Dekeukeleire, E. Leemans, and N. De Kimpe. "The use of functionalized beta-lactams as building blocks in heterocyclic chemistry" *Pure Appl. Chem.* **2010**, *81*, 1749–1759 (SCI IF 2.134, Q2).
- 52) E. Leemans, **M. D'hooghe**, Y. Dejaegher, K. W. Törnroos, and N. De Kimpe. "Synthesis of 3,4-fused bicyclic beta-lactams and their transformation into methyl *cis*-3-aminotetrahydrofuran-2-carboxylates" *Eur. J. Org. Chem.* **2010**, 352–358 (SCI IF 3.206, Q1)
- 51) **M. D'hooghe**, K. Mollet, S. Dekeukeleire and N. De Kimpe. "Stereoselective synthesis of *trans*- and *cis*-2-aryl-3-(hydroxymethyl)aziridines through transformation of 4-aryl-3-chloro-beta-lactams and study of their ring opening" *Org. Biomol. Chem.* **2010**, *8*, 607–615. (SCI IF 3.451, Q1)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 50) **M. D'hooghe**, K. Abbaspour Tehrani and N. De Kimpe. "Conjugate addition of 2-(bromomethyl)- and 2-(2-bromoethyl)piperidine onto alkyl acrylates – Application towards the synthesis of 2-(methoxycarbonyl)indolizidine" *Arkivoc* **2010**, (iii), 93-101. (SCI IF 1.096, Q3)
- 49) K. Vervisch, **M. D'hooghe**, K. W. Törnroos and N. De Kimpe. "A new approach towards 1-phenyl and 1-benzyl substituted 2-(aminomethyl)cyclopropanecarboxamides as novel derivatives of the antidepressant Milnacipran" *Org. Biomol. Chem.* **2009**, 7, 3271-3279. (SCI IF 3.762, Q1)
- 48) **M. D'hooghe**, S. Dekeukeleire, K. Mollet, C. Lategan, P. J. Smith, K. Chibale, and N. De Kimpe. "Synthesis of novel *anti*-2-alkoxy-3-amino-3-arylpropan-1-ols and *cis*-5-alkoxy-4-aryl-1,3-oxazinanes with antimalarial activity" *J. Med. Chem.* **2009**, 52, 4058-4062. (SCI IF 4.809, Q1)
- 47) W. Van Brabandt, S. Mangelinckx, **M. D'hooghe**, B. Van Driessche, and N. De Kimpe "Synthesis and Reactivity of 3-Haloazetidines and 3-Sulfonyloxyazetidines: A Review" *Curr. Org. Chem.* **2009**, 13, 827-851. (SCI IF 2.879, Q2)
- 46) S. Y. Yun, S. Catak, W. K. Lee, **M. D'hooghe**, N. De Kimpe, V. Van Speybroeck, M. Waroquier, Y. Kim, and H.-J. Ha. "Nucleophile-dependent regioselective ring opening of 2-substituted N,N-dibenzylaziridinium ions: bromide versus hydride" *Chem. Commun.* **2009**, 2508-2510. (SCI IF 5.504, Q1)
- 45) **M. D'hooghe**, K. Abbaspour Tehrani and N. De Kimpe. "Synthesis of 2-(3-hydroxy-2-methyl-1-alkenyl)-1-pyrrolines and 2-(3-hydroxybutyl)-1-pyrroline using α -lithiated 2-methyl-1-pyrroline" *Tetrahedron* **2009**, 65, 3753-3756. (SCI IF 3.219, Q1)
- 44) S. Mangelinckx, **M. D'hooghe**, S. Peeters and N. De Kimpe. "Synthesis of *N*-Alkylidene 2-Aminocyclopropanecarbonitriles via a Two-step Ring Transformation of 2-(Cyanomethyl)aziridines" *Synthesis* **2009**, 1105-1112. (SCI IF 2.572, Q2)
- 43) S. Dekeukeleire, **M. D'hooghe** and N. De Kimpe. "Diastereoselective Synthesis of Bicyclic gamma-Lactams via Ring Expansion of Monocyclic beta-Lactams" *J. Org. Chem.* **2009**, 74, 1644-1649. (SCI IF 4.219, Q1)
- 42) **M. D'hooghe**, W. Aelterman and N. De Kimpe. "A new entry into *cis*-3-amino-2-methylpyrrolidines via ring expansion of 2-(2-hydroxyethyl)-3-methylaziridines" *Org. Biomol. Chem.* **2009**, 7, 135-141. (SCI IF 3.762, Q1)
- 41) **M. D'hooghe**, B. Van Driessche and N. De Kimpe. "One-pot synthesis of 3,3-dimethylpyrrolidine-2-carbonitriles from 4-chloro-2,2-dimethylbutanal in water" *Heterocycles* **2009**, 77, 255-261. (SCI IF 1.165, Q3)
- 40) **M. D'hooghe**, C. Buyck, J. Contreras and N. De Kimpe. "Electrophile-induced bromocyclization of gamma,delta-unsaturated ketimines to intermediate 1-pyrrolinium salts and their selective conversion into novel 5-alkoxymethyl-2-aryl-3-chloropyrroles and 2-arylpyrroles" *Org. Biomol. Chem.* **2008**, 6, 3667-3669. (SCI IF 3.550, Q1)
- 39) **M. D'hooghe**, J. Baele, J. Contreras, M. Boelens and N. De Kimpe. "Reduction of 5-(bromomethyl)-1-pyrrolinium bromides to 2-(bromomethyl)pyrrolidines and their transformation into piperidin-3-ones through an unprecedented ring expansion-oxidation protocol" *Tetrahedron Lett.* **2008**, 49, 6039-6042. (SCI IF 2.538, Q2)
- 38) **M. D'hooghe**, B. De Meulenaer and N. De Kimpe. "Synthesis and reactivity of novel α,α,β - and α,α,γ -trichlorinated imines" *Synlett* **2008**, 2437-2442. (SCI IF 2.659, Q2)
- 37) Y. Dejaegher, **M. D'hooghe** and N. De Kimpe. "Synthesis of novel 3-oxopiperidin-2-ones from methyl 2-alkoxy-5-amino-2-pentenoates" *Synlett* **2008**, 1961-1964. (SCI IF 2.659, Q2)
- 36) **M. D'hooghe**, W. Van Brabandt, S. Dekeukeleire, Y. Dejaegher and N. De Kimpe. "Highly stereoselective synthesis of beta-lactams utilizing α -chloroimines as new and powerful chiral inductors" *Chem. Eur. J.* **2008**, 14, 6336-6340. (I. F. 5.454, Q1)
- 35) M. Karikomi, **M. D'hooghe**, G. Verniest and N. De Kimpe. "Regio- and stereocontrolled synthesis of novel 3-sulfonamido-2,3,4,5-tetrahydro-1,5-benzothiazepines from 2-(bromomethyl)- or 2-(sulfonyloxymethyl)aziridines" *Org. Biomol. Chem.* **2008**, 6, 1902-1904. (SCI IF 3.550, Q1)
- 34) **M. D'hooghe**, Y. Dejaegher and N. De Kimpe. "Synthesis of *trans*-4-aryl-3-(3-chloropropyl)azetidines-2-ones and their transformation into *trans*- and *cis*-2-aryl-3-piperidine-3-carboxylates" *Tetrahedron* **2008**, 64, 4575-4584. (SCI IF 2.897, Q2)
- 33) **M. D'hooghe**, S. Dekeukeleire and N. De Kimpe. "Reactivity of *N*-(omega-haloalkyl)-beta-lactams with regard to lithium aluminium hydride: novel synthesis of 1-(1-aryl-3-hydroxypropyl)aziridines and 3-aryl-3-(*N*-propylamino)propan-1-ols" *Org. Biomol. Chem.* **2008**, 6, 1190-1196. (SCI IF 3.550, Q1)
- 32) **M. D'hooghe** and N. De Kimpe. "Synthesis and Synthetic Applications of 2-Amino-3-halo-1-oxypropanes" *Tetrahedron* **2008**, 64, 3275-3285. (SCI IF 2.897, Q2)
- 31) E. Leemans, **M. D'hooghe**, Y. Dejaegher, K. W. Törnroos, and N. De Kimpe. "Novel diastereoselective synthesis of bicyclic beta-lactams through radical cyclization and their reduction toward 2-(1-alkoxy-2-hydroxyethyl)piperidines and 2-(1-alkoxy-2-hydroxyethyl)azepanes" *J. Org. Chem.* **2008**, 73, 1422-1428. (SCI IF 3.952, Q1)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 30) **M. D'hooghe** and N. De Kimpe. "Coupling of 1-alkyl-2-(bromomethyl)aziridines with heteroatom-centered nucleophiles towards 2-[(heteroatom)methyl]aziridines" *Arkivoc* **2008**, (ix), 6-19. (SCI IF 1.377, Q3)
- 29) **M. D'hooghe**, A. Van Nieuwenhove, W. Van Brabandt, M. Rottiers and N. De Kimpe. "Novel synthesis of 2-aminopentanedinitriles from 2-(bromomethyl)aziridines and their transformation into 2-imino-5-methoxypyrrolidines and 5-methoxypyrrolidin-2-ones" *Tetrahedron* **2008**, 64, 1064-1070. (SCI IF 2.897, Q2)
- 28) **M. D'hooghe**, K. Vervisch, and N. De Kimpe. "Synthesis of 1-arylmethyl-2-(2-cyanoethyl)aziridines and their rearrangement into novel 2-(aminomethyl)cyclopropanecarbonitriles" *J. Org. Chem.* **2007**, 72, 7329-7332. (SCI IF 3.959, Q1)
- 27) **M. D'hooghe**, V. Van Speybroeck, A. Van Nieuwenhove, M. Waroquier, and N. De Kimpe. "Novel synthesis of 3,4-diaminobutanenitriles and 4-amino-2-butenenitriles from 2-(cyanomethyl)aziridines through intermediate aziridinium salts: an experimental and theoretical approach" *J. Org. Chem.* **2007**, 72, 4733-4740. (SCI IF 3.959, Q1)
- 26) G. S. Singh, **M. D'hooghe** and N. De Kimpe. "Synthesis and Reactivity of C-Heteroatom Substituted Aziridines" *Chem. Rev.* **2007**, 107, 2080-2135. (SCI IF 22.757, Q1)
- 25) **M. D'hooghe** and N. De Kimpe. "Reactivity of 1-alkyl-2-(bromomethyl)aziridines towards *n*-butyllithium" *Arkivoc* **2007**, (x), 365-373. (SCI IF 1.253, Q3)
- 24) **M. D'hooghe**, M. Boelens, J. Piqueur and N. De Kimpe. "Stereospecific Aziridination of Olefins via Electrophile-Induced Cyclization of gamma,delta-Unsaturated Imines and Subsequent Hydrolytic Rearrangement" *Chem. Commun.* **2007**, 1927-1929. (SCI IF 5.141, Q1)
- 23) **M. D'hooghe** and N. De Kimpe. "Highly unusual conversion of 1-alkyl-2-(bromomethyl)aziridines into 1-alkyl-2-(*N*-alkyl-*N*-ethylaminomethyl)aziridines using methyllithium" *Chem. Commun.* **2007**, 1275-1277. (SCI IF 5.141, Q1)
- 22) **M. D'hooghe**, K. Vervisch, A. Van Nieuwenhove and N. De Kimpe. "Ring opening of 2-(cyanomethyl)aziridines by acid chlorides: synthesis of novel 4-amino-2-butenenitrile derivatives through intermediate aziridinium salts" *Tetrahedron Lett.* **2007**, 48, 1771-1774. (SCI IF 2.615, Q2)
- 21) I. Kanizsai, Z. Szakonyi, R. Sillanpää, **M. D'hooghe**, N. De Kimpe and F. Fülöp. "Synthesis of chiral 1,5-disubstituted pyrrolidinones via electrophile-induced cyclization of 2-(3-butenyl)oxazolines derived from (1*R*,2*S*)- and (1*S*,2*R*)-norephedrine" *Tetrahedron Asymm.* **2006**, 17, 2857-2863. (I. F. 2.468, Q2)
- 20) W. Van Brabandt, M. Vanwalleghem, **M. D'hooghe**, and N. De Kimpe. "Asymmetric synthesis of 1-(2- and 3-haloalkyl)azetidin-2-ones as precursors for novel piperazine, morpholine and 1,4-diazepane annulated beta-lactams" *J. Org. Chem.* **2006**, 71, 7083-7086. (SCI IF 3.790, Q1)
- 19) **M. D'hooghe** and N. De Kimpe. "Opposite regioselectivity in the sequential ring opening of 2-(alkanoyloxymethyl)aziridinium salts by bromide and fluoride in the synthesis of functionalized β -fluoro amines" *Synlett* **2006**, 2089-2093. (SCI IF 2.838, Q2)
- 18) B. Van Driessche, W. Van Brabandt, **M. D'hooghe**, Y. Dejaegher and N. De Kimpe. "Synthesis and Reactivity of trans-2-Aryl-3-chloroazetidines" *Tetrahedron* **2006**, 62, 6882-6892. (SCI IF 2.817, Q2)
- 17) **M. D'hooghe**, S. Mangelinckx, E. Persyn, W. Van Brabandt and N. De Kimpe. "Synthesis of 1-arylmethyl-2-(cyanomethyl)aziridines and their ring transformation into methyl *N*-(2-cyanocyclopropyl)benzimidates" *J. Org. Chem.* **2006**, 71, 4232-4236. (SCI IF 3.790, Q1)
- 16) **M. D'hooghe**, T. Vanlangendonck, K. W. Törnroos and N. De Kimpe. "Novel synthesis of cis-3,5-disubstituted morpholine derivatives" *J. Org. Chem.* **2006**, 71, 4678-4681. (SCI IF 3.790, Q1)
- 15) **M. D'hooghe**, V. Van Speybroeck, M. Waroquier and N. De Kimpe. "Regio- and stereospecific ring opening of 1-alkyl-2-(aryloxymethyl)aziridinium salts by bromide." *Chem. Commun.* **2006**, 1554-1556. (SCI IF 4.521, Q1)
- 14) **M. D'hooghe**, A. Waterinckx, T. Vanlangendonck and N. De Kimpe. "A new approach towards 2-amino-1-aryloxy-3-methoxypropanes from 1-arylmethyl-2-(bromomethyl)aziridines" *Tetrahedron* **2006**, 62, 2295-2303. (SCI IF 2.817, Q2)
- 13) **M. D'hooghe** and N. De Kimpe. "Synthetic approaches towards 2-iminothiazolidines: an overview" *Tetrahedron* **2006**, 62, 513-535. (SCI IF 2.817, Q2)
- 12) **M. D'hooghe**, M. Rottiers, I. Kerkaert and N. De Kimpe. "Ring opening of 2-(bromomethyl)-1-sulfonylaziridines towards 1,3-heteroatom substituted 2-aminopropane derivatives" *Tetrahedron* **2005**, 61, 8746-8751. (SCI IF 2.610, Q2)
- 11) **M. D'hooghe**, M. Rottiers, R. Jolie and N. De Kimpe. "Coupling of 1-alkyl-2-(bromomethyl)aziridines with lithium dialkylcuprates towards 1,2-dialkylaziridines" *Synlett* **2005**, 931-934. (SCI IF 2.693, Q1)
- 10) Z. Szakonyi, **M. D'hooghe**, I. Kanizsai, F. Fülöp and N. De Kimpe. "Synthesis of bicyclic carbamates as precursors of Sedum alkaloid derivatives" *Tetrahedron* **2005**, 61, 1595-1602. (SCI IF 2.610, Q2)
- 9) **M. D'hooghe**, A. Waterinckx and N. De Kimpe. "A novel entry toward 2-imino-1,3-thiazolidines and 2-imino-1,3-thiazolines by ring transformation of 2-(thiocyanomethyl)aziridines" *J. Org. Chem.* **2005**, 70, 227-232. (SCI IF 3.675, Q1)

A1 Publications in international journals with peer review of Prof. Matthias D'hooghe

- 8) T. Nguyen Van, **M. D'hooghe**, S. Pattyn and N. De Kimpe. "Synthesis of functionalized 1,4-dihydro-9,10-anthraquinones and anthraquinones by ring closing metathesis using Grubbs' catalyst" *Synlett* **2004**, 1913-1916. (SCI IF 2.738, Q1)
- 7) **M. D'hooghe**, W. Van Brabandt and N. De Kimpe. "New synthesis of propargylic amines from 2-(bromomethyl)aziridines. Intermediacy of 3-bromoazetidinium salts" *J. Org. Chem.* **2004**, 69, 2703-2710. (SCI IF 3.462, Q1)
- 6) **M. D'hooghe**, I. Kerkaert, M. Rottiers and N. De Kimpe. "Ring opening reactions of 1-arenesulfonyl-2-(bromomethyl)aziridines" *Tetrahedron* **2004**, 60, 3637-3641. (SCI IF 2.643, Q1)
- 5) **M. D'hooghe** and N. De Kimpe. "The mechanism of nucleophilic substitution of 1-alkyl-2-(tosyloxymethyl)aziridines" *Synlett* **2004**, 271-274. (SCI IF 2.738, Q1)
- 4) **M. D'hooghe**, Z. Szakonyi, F. Fülöp and N. De Kimpe. "Synthesis of *N*-(4-chlorobutyl)butanamide, a chlorinated amide isolated from *Aloe saba*" *Org. Prep. Proced. Int.* **2003**, 35, 501-507. (SCI IF 0.841, Q3)
- 3) **M. D'hooghe**, W. Van Brabandt and N. De Kimpe. "Synthesis of quaternary allylammonium salts *via* ring opening of 1-benzyl-2-(bromomethyl)aziridines" *Tetrahedron* **2003**, 59, 5383-5386. (SCI IF 2.641, Q2)
- 2) K. Abbaspour Tehrani, **M. D'hooghe** and N. De Kimpe. "Novel synthesis of indolizidines and quinolizidines" *Tetrahedron* **2003**, 59, 3099-3108. (SCI IF 2.641, Q2)
- 1) **M. D'hooghe**, A. Hofkens and N. De Kimpe. "A new route towards *N*-(α -methoxybenzyl)aziridines" *Tetrahedron Lett.* **2003**, 44, 1137-1139. (SCI IF 2.326, Q2)