

Publications – Prof. Dr. Pierre Koch (*as Corresponding Author)

Research articles, reviews:

2025

88. Ertl, F. J., Friedel, A., Schmid, E. J., Höring, C., Archipowa, N., **Koch, P.**, Maschbauer, S., Kutta, R. J., Prante, O., Keller, M. High-Affinity and Proteolytically Stable Peptidic Fluorescent NTS₁R Ligands. *J. Med. Chem.* 2025, 68, 19482-19502.
87. Sellmer, A., Able, M., Spiekermann, K., Reinecke, M., Kuster, B., Utpatel, K., Wirth, L., Pongratz, H., Plank, N., **Koch, P.**, Elz, S., Fischer, A., Tizazu, B., Fiebig, H.-H., Dove, S., Mahboobi, S. Novel water-soluble and highly efficient dual type I/II next generation inhibitors of FMS-like tyrosine kinase 3 (FLT3). *Eur. J. Med. Chem.* 2025, 296, 117849.
86. Wydra, V. R., Plank, N., Zwirner, S., Selig, R., Rasch, A., Masberg, B., Lämmerhofer, M., Zender, L., **Koch, P.**, Albrecht, W., Laufer, S. A. "Ligand First" Approach toward Selective, Covalent JNK2/3 Inhibitors. *J. Med. Chem.* 2025, 68, 12004-12028.
85. Schettler, F., Gattor, A. **Koch, P.**, Keller, M. Characterization of [³H]Propionylated Human Peptide YY – a New Probe for Neuropeptide Y Y₂ Receptor Binding Studies. *ACS Pharmacol. Transl. Sci.*, ASAP, 2025, 8, 785-799.
84. **Koch, P.**, Schollmeyer, D. 4-[4-(4-fluorophenyl)-1,2-oxazol-5-yl]pyridine. *IUCr data* 2025, 10, x251107.
83. **Koch, P.**, Schollmeyer, D., Laufer S. 4-[5-(4-fluorophenyl)-1,2-oxazol-4-yl]pyridine. *IUCr data* 2025, 10, x250987.

2024

82. Martorelli, M., Dengler, M., Laux, J., Fischer, T., Vaiceliunaite, A., Hahn, U., Cruces, S., Pokoj, C., de Oliveira de Cunha, L., Wohlbold, L., **Koch, P.**, Laufer, S., Burnet, M., Maier, F. A Defined Diet Combined with Sonicated Inoculum Provides a High Incidence, Moderate Severity Form of Experimental Autoimmune Encephalomyelitis (EAE). *ACS Pharmacol. Transl. Sci.*, 2024, 7, 3827-3845.
81. **Koch, P.**, Schollmeyer, D. 1-[(2-Chlorophenyl)diphenylmethyl]-1*H*-pyrazole. *IUCr data* 2024, 9, x241152.
80. Scheuerer, S., Motlova, L., Schäker-Hübner, L., Sellmer, A., Feller, F., Ertl, F. J., **Koch, P.**, Hansen, F. K., Barinka, C., Mahboobi, S. Biological and structural investigation of tetrahydro- β -carboline-based selective HDAC6 inhibitors with improved stability. *Eur. J. Med. Chem.* 2024, 276, 116676.
79. Ganser, K., Stansky, N., Abed, T., Quintanilla-Martinez, L., Gonzalez-Menendez, I., Naumann, U., **Koch, P.**, Krueger, M., Ruth, P., Huber, S. M., Eckert, F. K_{Ca} channel targeting impairs DNA repair and invasiveness of patient-derived glioblastoma stem cells in culture and orthotopic mouse xenografts which only in part is predictable by K_{Ca} expression levels. *Int. J. Cancer* 2024, 155, 1886-1901.

2023

78. Stansky, N., Ganser, K., Quintanilla-Martinez, L., Gonzalez-Menendez, I., Naumann, U., Eckert, F. **Koch, P.**, Huber, S. M., Ruth, P. Efficacy of combined tumor irradiation and K_{Ca}3.1-targeting with TRAM-34 in a syngeneic glioma mouse model. *Sci. Rep.* 2023, 13, 202604.
77. Hoffelner, B. S., Andreev, S., Plank, N., **Koch, P.*** Photocaging of Pyridinylimidazole-Based Covalent JNK3 Inhibitors Affords Spatiotemporal Control of the Binding Affinity in Live Cells. *Pharmaceuticals* 2023, 16, 246.

2022

76. Müller, C., Gleixner, J., Tahk, M.-J., Kopanchuk, S., Laasfeld, T., Weinhart, M., Schollmeyer, D. Betschart, M. U., Lüdeke, S., **Koch, P.**, Rinken, A., Keller, M. Structure-based design of high-affinity fluorescent probes for the neuropeptide Y Y1 receptor. *J. Med. Chem.*, 2022, 65, 4832-4853.
75. Andreev, S., Pantsar, T., Tesch, R., Kahlke, N., El-Gokha, A., Ansideri, F., Grätz, L., Romasco, J., Sita, G., Geibel, C., Lämmerhofer, M., Tarozzi, A., Knapp, S., Laufer, S. A., **Koch, P.*** Addressing a Trapped High-Energy Water: Design and Synthesis of Highly Potent Pyrimidoindole-based Glycogen Synthase Kinase-3 β inhibitors. *J. Med. Chem.* 2022, 65, 1283-1301.
74. Tormählen, N. W., Martorelli, M., Kuhn, A., Maier, F., Guezguez, J., Burnet, M., Albrecht, W., Laufer, S. A., **Koch, P.*** Design and Synthesis of Highly Selective Brain Penetrant p38 α Mitogen-Activated Protein Kinase Inhibitors. *J. Med. Chem.* 2022, 65, 1225-1242.
73. Andreev, S., Plank, N., Schollmeyer, D., **Koch, P.*** (S)-3-(3-((7-Ethynyl-9H-pyrimido[4,5-*b*]indol-4-yl)amino)piperidin-1-yl)propanenitrile. *Molbank* 2022, 2022, M1437.
72. Boskovic, M., Andreev, S., Schollmeyer, D., **Koch, P.*** 12*H*-Dibenzo[*d,g*][1,2,3]trisenocin-12-ol. *Molbank* 2022, 2022, M1418.

2021

71. Schade, N., **Koch, P.**, Ansideri, F., Krystof, V., Hilgeroth, A. Evaluation of Novel Substituted Furopyridines as Inhibitors of Protein Kinases Related to Tau Pathology in Alzheimer's Disease. *Med. Chem. (Sharjah, United Arab Emirates)* 2021, 17, 844-855.
70. Reynders, M. Chaikuad, A., Berger, B.-T., Bauer, K., **Koch, P.**, Laufer, S., Knapp, S., Trauner, D. Controlling the Covalent Reactivity of a Kinase Inhibitor with Light. *Angew. Chem. Int. Ed.* 2021, 60, 20178-20183.
69. Eitel, M., Zinad, D., Schollmeyer, D., Gross, H., **Koch, P.*** Selective Mono-de-O-acetylation of the Per-O-acetylated Brasilicardin Carbohydrate Side Chain. *Carbohydrate Res.* 2021, 504, 108312.
68. Andreev, S., Schollmeyer, D., **Koch, P.*** 1-(3-((7-Fluoro-9*H*-pyrimido[4,5-*b*]indol-4-yl)(methyl)amino)piperidin-1-yl)propan-1-one. *IUCr data* 6, x210159.
67. Botas, A., Eitel, M., Schwarz, P. N., Buchmann, A., Costales, P., Núñez, L. E., Cortés, J., Morís, F., Krawiec, M., Wolański, M., Gust, B., Rodriguez, M., Fischer, W.-N., Jandeleit, B., Zakrzewska-Cerwińska, J., Wohlleben, W., Stegmann, E., **Koch, P.,*** Méndez, C., Gross, H. Genetic engineering in combination with semisynthesis leads to a new route for gram-scale production of the immunosuppressive natural product brasilicardin A. *Angew. Chem. Int. Ed.* 2021, 60, 13536-13541.
66. Wolański, M., Krawiec, M., Schwarz, P.N., Stegmann, E., Wohlleben, W., Buchmann, A., Gross, H., Eitel, M., **Koch, P.**, Botas, A., Méndez, C., Núñez, L.E., Morís, F., Cortés, J., Zakrzewska-Czerwińska, J. LysRNt: A novel regulator involved in the biosynthesis of the immunosuppressant brasilicardin. *Eng. Life Sci.* 2021, 21, 4-18.

2020

65. Majer, T., Schollmeyer, D., **Koch, P.**, Gross, H. (2*S*,3'*S*,3*a'**R*,5'*R*,7*a'**R*)-5'-((*E*)-5-(Furan-3-yl)-2-methylpent-1-en-1-yl)-3-hydroxy-3',4,7'-trimethyl-1',2',3',3*a'*,5',7*a'*-hexahydro-5*H*-spiro[furan-2,4'-inden]-5-one. *IUCr data* 2020, 5, x201578.
64. Andreev, S., Pantsar, T., El-Gokha, A., Ansideri, F., Kudolo, M., Anton, D. B., Sita, G., Romasco, J., Geibel, C., Lämmerhofer, M., Goettert, M. I., Tarozzi, A., Laufer, S. A., **Koch, P.*** Discovery and Evaluation of Enantiopure 9*H*-pyrimido[4,5-*b*]indoles as Nanomolar GSK-3 β Inhibitors with Improved Metabolic Stability. *Int. J. Mol. Sci.* 2020, 21, 7823.
63. **Koch, P.*** Inhibitors of cJun N-terminal kinase 3. In: Laufer, S. (eds) Proteinkinase Inhibitors. *Topics in Med. Chem.* 2020, vol. 36. Springer, Cham. https://doi.org/10.1007/7355_2020_98.

2019

62. Heider, F., Pantsar, T., Kudolo, M., Ansideri, F., De Simone, A., Pruccoli, L., Schneider, T., Goettert, M. I., Tarozzi, A., Andrisano, V., Laufer, S. A., **Koch, P.*** Pyridinylimidazoles as GSK3 β inhibitors: the impact of tautomerism on compound activity via water networks. *ACS Med. Chem. Lett.* 2019, 10, 1407–1414.
61. Andreev, S., Pantsar, T., Ansideri, F., Kudolo, M., Forster, M., Schollmeyer, D., Laufer, S. A., **Koch, P.*** Design, Synthesis and Biological Evaluation of 7-Chloro-9H-pyrimido[4,5-*b*]indole-based Glycogen synthase kinase-3 β inhibitors. *Molecules* 2019, 24, 2331.
60. Heider, F., Ansideri, F., Tesch, R., Pantsar, T., Haun, U., Döring, E., Kudolo, M., Poso, A., Albrecht, W., Laufer, S. A., **Koch, P.*** Pyridinylimidazoles as dual Glycogen Synthase Kinase 3 β /p38 α Mitogen-activated Protein Kinase Inhibitors. *Eur. J. Med. Chem.* 2019, 175, 309-329.
59. Elgokha, A., Ansideri, F., Andreev, S., Schollmeyer, D., Laufer, S. A., **Koch, P.*** N¹-{4-[2-(Methylthio)-1H-imidazol-5-yl]pyridin-2-yl}benzene-1,4-diamine. *Molbank* 2019, 2019, M1048.

2018

58. Ernst, C., Heidrich, J., Sessler, C., Sindlinger, J., Schwarzer, D., **Koch, P.**, Boeckler, F. M. Switching Between Bicyclic and Linear Peptides-The Sulfhydryl-Specific Linker TPSMB Enables Reversible Cyclization of Peptides. *Frontiers Chem.* 2018, 6, 484.
57. Ernst, C., Sindlinger, J., Schwarzer, D., **Koch, P.**, Boeckler, F. M. The Symmetric Tetravalent Sulfhydryl-Specific Linker NATBA Facilitates a Combinatorial “Tool Kit” Strategy for Phage Display-Based Selection of Functionalized Bicyclic Peptides. *ACS Omega* 2018, 3, 13261-12368.
56. Eitel, M., Schollmeyer, D., Gross, H., **Koch, P.*** (2*S*, 3*S*)-2-Azaniumyl-4-[(1*S*, 4*aS*, 4*bS*, 6*S*, 7*S*, 8*aS*, 10*aS*)-6,7-dihydroxy-2,4*b*,8,8,10*a*-pentamethyl-1,4,4*a*,4*b*,5,6,7,8,8*a*,9,10,10*a*-dodecahydrophenanthren-1-yl]-3-methoxybutanoate–methanol–water (1/1/1). *IUCrData* 2018, 3, x181194.
55. Ansideri, F., Macedo, J. T., Eitel, M., El-Gokha, A., Zinad, D. S., Scarpellini, C., Kudolo, M., Schollmeyer, D., Boeckler, F. M., Blaum, B. S., Laufer, S. A., **Koch, P.*** Structural Optimization of a Pyridinylimidazole Scaffold: Shifting the Selectivity from p38 α Mitogen-Activated Protein Kinase to c-Jun N-terminal Kinase 3. *ACS Omega* 2018, 3, 7809-7831.
54. **Koch, P.**, Brunschweiler, A., Namisvajan, V., Ullrich, S., Maurca, A., Lazzaretto, B., Küppers, P., Hinz, S., Hockemeyer, J., Wiese, M., Heer, J., Alcaro, S., Kiec-Kononowicz, K., Müller, C. E. Probing substituents in the 1- and 3-position: Tetrahydropyrazino-annelated water-soluble xanthine derivatives as multi-target drugs with potent adenosine receptor antagonistic activity. *Frontiers Chem.* 2018, 6, 206.
53. Chaikuad, A., **Koch, P.**, Laufer, S. A., Knapp, S. Das Cysteinom der Proteinkinasen als Zielstruktur in der Arzneistoffentwicklung. *Angew. Chem.* 2018, 130, 4456-4470. (Review)
Chaikuad, A., **Koch, P.**, Laufer, S. A., Knapp, S. The Cysteinome of Protein Kinases as a Target in Drug Development. *Angew. Chem. Int. Ed.* 2018, 57, 4372-4385. (Review)
52. Ansideri, F., Andreev, S., Kuhn, A., Albrecht, W., Laufer, S. A., **Koch, P.*** A Diverse and Versatile Regiospecific Synthesis of Tetrasubstituted Alkylsulfanylimidazoles p38 α Mitogen-Activated Protein Kinase Inhibitors. *Molecules* 2018, 23, 221.

2017

51. **Koch, P.*** Ansideri, F. 2-Alkylsulfanyl-4(5)-aryl-5(4)-heteroarylimidazoles: an Overview on Synthetic Strategies and Biological Activity. *Arch. Pharm.*, 2017, 350, e1700258. (Review)
50. Heider, F., Haun, U., Döring, E., Kudolo, M., Sessler, C., Albrecht, W., Laufer, S., **Koch, P.*** From 2-alkylsulfanylimidazoles to 2-alkylimidazoles: An approach towards metabolically more stable p38 α MAP kinase inhibitors. *Molecules* 2017, 22, 1729.
49. Eitel, M., Schollmeyer, D., **Koch, P.*** (E)-(1-Pyridin-4-yl)-propan-1-one O-tosyl oxime. *IUCrData* 2017, 2, x171602.

48. Steudel, F. A, Mohr, C. J., Steegen, B., Nguyen, H. Y., Barnert, A., Steinle, M., Berr-Hammer, S., **Koch, P.**, Lo, W.-Y., Schroth, W., Hoppe, R., Brauch, H., Ruth, P., Huber, S. M., Lukowski, R. SK4 channels modulate Ca²⁺-signalling and cell cycle progression in murine breast cancer. *Mol. Oncol.* 2017, **11**, 1172-1188.
47. Ansideri, F., Dammann, M., Boeckler, F. M., **Koch, P.*** Fluorescence polarization-based competition binding assay for c-Jun N-terminal kinases 1 and 2. *Anal. Biochem.* 2017, **532**, 26-28.
46. Muth, F., El-Gokha, A., Ansideri, F., Eitel, M., Döring, E. Sievers-Engler, A., Lange, A., Boeckler, F. M., Lämmerhofer, M., **Koch, P.,*** Laufer, S. A. Tri- and Tetrasubstituted Pyridinylimidazoles as Covalent Inhibitors of c-Jun N-Terminal Kinase 3. *J. Med. Chem.* 2017, **60**, 594-607.

2016

45. Buchmann, A., Eitel M., **Koch, P.**, Schwarz, P. N., Stegmann, E., Wohlleben, W., Wolański, M., Krawiec, M., Zakrzewska-Czerwińska, J., Méndez, C., Botas, A., Núñez, L. E., Morís, F., Cortés, J., Gross, H. High-Quality Draft Genome Sequence of the Actinobacterium *Nocardia terpenica* IFM 0406, Producer of the Immunosuppressant Brasilicardins, Using Illumina and PacBio Technologies. *Genome Announc.* 2016, **4**, e01391-16.
44. Brunschweiler, A., **Koch, P.**, Schlenk, M., Rafehi, M., Radjainia, H., Küppers, P., Hinz, H., Pineda, F., Wiese, M., Hockemeyer, J., Heer, J., Denonne, F., Müller, C. E. 8-Substituted 1,3-dimethyltetrahydropyrazino[2,1-f]purinediones: Water-soluble adenosine receptor antagonists and monoamine oxidase B inhibitors. *Bioorg. Med. Chem.* 2016, **24**, 5462-5480.
43. Ansideri, F., Lange, A., El-Gokha A., Boeckler, F. M., **Koch, P.*** Fluorescence polarization-based assay for detecting compounds binding to inactive JNK3 and p38 α MAP Kinase. *Anal. Biochem.* 2016, **503**, 28-40.
42. Ansideri, F., Schollmeyer, D., **Koch, P.*** 1-(3',6'-Dihydroxy-3-oxo-3H-spiro[isobenzofuran-1,9'-xanthen]-5-yl)-3-[4-({4-[1-(4-fluorophenyl)-1H-imidazol-5-yl]pyridin-2-yl}amino)phenyl]thiourea methanol monosolvate. *IUCrData* 2016, **1**, x1608040.
41. El-Gokha A., Schollmeyer, D., **Koch, P.*** 4-Methyl-N-(4-methylpyridin-2-yl)-N-(3,4,5,6-tetrahydro-2H-pyran-4-yl)pyridin-2-amine. *IUCrData* 2016, **1**, x160804.
40. Eitel, M., Schollmeyer, D., **Koch, P.*** (E)-(1-Pyridin-4-yl)-propan-1-one oxime. *IUCrData* 2016, **1**, x160803.

2015

39. Lange, A., Günther, M., Buettner, F. M., Zimmermann, M. O., Heidrich, J., Hennig, S., Zahn, S., Schall, C., Sievers-Engler, A., Ansideri, F., **Koch, P.**, Lämmerhofer, M., Stehle, T., Laufer, S. A., Boeckler, F. M. Targeting the Gatekeeper MET146 of c-Jun N-terminal kinase 3 (JNK3) Induces a Bivalent Halogen / Chalcogen Bond. *J. Am. Chem. Soc.* 2015, **137**, 14640-14652.
38. Jung, M. E., Chamberlain, B. T., **Koch, P.**, Niazi, K. R. Synthesis and Biological Activity of a Brasilicardin A Analogue Featuring a Simplified Core. *Org. Lett.* 2015, **17**, 3608-3611.
37. Elgokha, A., Laufer, S. A., **Koch, P.*** An optimized and versatile synthesis to pyridinylimidazole-type p38 α mitogen activated protein kinase inhibitors. *Org. Biomol. Chem.* 2015, **13**, 10699-10704.
36. Gehringer, M., Muth, F., **Koch, P.**, Laufer, S. A. c-Jun N-terminal kinase inhibitors: a patent review (2010 - 2014). *Expert Opin. Ther. Pat.* 2015, **25**, 849-872. (Review)
35. Muth, F., Günther, M., Bauer, S. M., Döring, E., Fischer, S., Maier, J., Drückes, P., Köppler, J., Trappe, J., Rothbauer, U., **Koch, P.**, Laufer, S. A. Tetra-Substituted Pyridinylimidazoles As Dual Inhibitors of p38 α Mitogen-Activated Protein Kinase and c-Jun N-Terminal Kinase 3 for Potential Treatment of Neurodegenerative Diseases. *J. Med. Chem.* 2015, **58**, 443-456.
34. **Koch, P.,*** Gehringer, M., Laufer, S. A. Inhibitors of c-Jun N-terminal kinase (an update). *J. Med. Chem.* 2015, **58**, 72-95. (Review).

2014

33. Zimmermann, M. O., Lange, A., Wicken, R., Cieslik, M. B., Exner, T. E., Joerger, J. C., **Koch, P.**, Boeckler, F. M. Halogen-enriched fragment libraries as chemical probes for harnessing halogen bonding in fragment-based lead discovery. *Future Med. Chem.* 2014, 6, 617-639. (Review)
32. Brunschweiler, A., **Koch, P.**, Schlenk, M., Pineda, F., Küppers, P., Hinz, S., Köse, M., Ullrich, S., Hockemeyer, J., Wiese, M., Heer, J., Müller, C. E. 8-Benzyltetrahydropyrazino[2,1-f]purinediones: Water-Soluble Tricyclic Xanthine Derivatives as Multitarget Drugs for Neurodegenerative Diseases. *ChemMedChem* 2014, 9, 1704-1724.

This publication was awarded with the Neuroallianz Publication Award 2014 – Silver Award.

2013

31. **Koch, P.**, Akkari, R., Brunschweiler A., Borrmann, T., Schlenk, M., Küppers, P., Köse, M., Radjainia, H., Hockemeyer, J., Drabczynska, A., Kiec-Kononowicz, K., Müller C. E. 1,3-Dialkyl-substituted tetrahydropyrimido[1,2-f]purine-2,4-diones as multiple target drugs for the potential treatment of neurodegenerative diseases. *Bioorg. Med. Chem.* 2013, 21, 7435-7452.

2012

30. Abu Thaher, B., Arnsmann, M., Totzke, F., Ehlert, J. E., Kubbutat, M. H. G., Schachtele, C., Zimmermann, M. O., **Koch, P.**, Boeckler, F. M., Laufer, S. Tri- and Tetrasubstituted Pyrazole Derivates: Regioisomerism Switches Activity from p38MAP Kinase to Important Cancer Kinases. *J. Med. Chem.* 2012, 55, 961-965.
29. Abu Thaher, B., **Koch, P.**, Schollmeyer, D., Laufer, S. 4-[5-Amino-4-(4-fluorophenyl)-3-(pyridin-4-yl)-1H-pyrazol-1-yl]benzonitrile. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2012, E68, o935.
28. Abu Thaher, B., **Koch, P.**, Schollmeyer, D., Laufer, S. Ethyl 5-amino-3-(pyridin-4-yl)-1-(2,4,6-trichlorophenyl)-1H-pyrazole-4-carboxylate dimethyl sulfoxide hemisolvate. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2012, E68, o917-918.
27. Abu Thaher, B., **Koch, P.**, Schollmeyer, D., Laufer, S. 4-(4-Fluorophenyl)-1-(4-nitrophenyl)-3-(pyridin-4-yl)-1H-pyrazol-5-amine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2012, E68, o366.
26. Abu Thaher, B., **Koch, P.**, Schollmeyer, D., Laufer, S. 4-(4-Fluorophenyl)-1-phenyl-3-(pyridin-4-yl)-1H-pyrazol-5-amine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2012, E68, o365.
25. Abu Thaher, B., **Koch, P.**, Schollmeyer, D., Laufer, S. 4-(4-Fluorophenyl)-3-(pyridin-4-yl)-1-(2,4,6-trichlorophenyl)-1H-pyrazol-5-amine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2012, E68, o2603.

2011

24. Jung, M. E., **Koch, P.** Mild, selective deprotection of PMB ethers with triflic acid/1,3-dimethoxybenzene. *Tetrahedron Lett.* 2011, 52, 6051-6054.
23. Jung, M. E., **Koch, P.** An Efficient Synthesis of the Protected Carbohydrate Moiety of Brasilicardin A. *Org. Lett.* 2011, 13, 3710-3713.

2010

22. Goettert, M., Schattel, V., **Koch, P.**, Merfort, I., Laufer, S. Biological Evaluation and Structural Determinants of p38 α Mitogen-Activated-Protein Kinase and c-Jun-N-terminal Kinase 3 Inhibition by Flavonoids. *ChemBioChem* 2010, 11, 2579-2588.
21. Laufer, S., Hauser, D., Stegmiller, T., Bracht, C., Ruff, K., Schattel, V., Albrecht, W., **Koch, P.** Tri- and tetrasubstituted imidazoles as p38 α mitogen-activated protein kinase inhibitors. *Bioorg. Med. Chem. Lett.* 2010, 20, 6671-6675.
20. **Koch, P.**, Schollmeyer, D., Laufer, S. 5-(4-Fluorophenyl)-4-(4-pyridyl) oxazol-2-amine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2010, E66, o917.

19. Koch, P., Laufer, S. Unexpected Reaction of 2-Alkylsulfanylimidazoles to Imidazol-2-ones: Pyridinylimidazol-2-ones as Novel Potent p38 α Mitogen-Activated Protein Kinase Inhibitors. *J. Med. Chem.* 2010, 53, 4798-4802.
18. Koch, P., Jahns, H., Schattel, V., Goettert, M. Laufer, S. Pyridinylquinoxalines and Pyridinylpyridopyrazines as Lead Compounds for Novel p38 α Mitogen-Activated Protein Kinase Inhibitors. *J. Med. Chem.* 2010, 53, 1128-1137.

2009

17. Abu Thaher, B., Koch, P., Schattel, V., Laufer, S. Role of the hydrogen bonding heteroatom-Lys53 interaction between the p38 α Mitogen-Activated Protein (MAP) kinase and pyridinyl-substituted 5-membered heterocyclic ring inhibitors. *J. Med. Chem.* 2009, 52, 2613-2617.
16. Koch, P., Schollmeyer, D., Laufer, S. *N*-{4-[3-(4-Fluorophenyl)pyrido[2,3-*b*]pyrazin-2-yl]-2-pyridyl}isopropylamine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o2557.
15. Koch, P., Schollmeyer, D., Laufer, S. 3-(4-Fluorophenyl)-2-(4-pyridyl) pyrido[2,3-*b*]pyrazine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o2546.
14. Koch, P., Schollmeyer, D., Laufer, S. 2-(4-Fluorophenyl)-3-(4-pyridyl) pyrido[2,3-*b*]pyrazine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o2512.
13. Jahns, H., Koch, P., Schollmeyer, D., Laufer, S. 3-(4-Fluorophenyl)-6-methoxy-2-(pyridin-4-yl)quinoxaline. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o1626.
12. Jahns, H., Koch, P., Schollmeyer, D., Laufer, S. 1-(2-(Benzylamino)pyridin-4-yl)-2-(4-fluorophenyl)ethane-1,2-dione. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o1451.
11. Koch, P., Schollmeyer, D., Laufer, S. 4-[3-(4-Fluorophenyl)quinoxalin-2-yl]-*N*-isopropylpyridin-2-amine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o1344.
10. Koch, P., Schollmeyer, D., Laufer, S. 4-[5-(4-Fluorophenyl)-1*H*-imidazol-4-yl]pyridine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o573.
9. Abu Thaher, B., Koch, P., Schollmeyer, D., Laufer, S. 4-[2-(4-Fluorophenyl)furan-3-yl]pyridine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o458.
8. Abu Thaher, B., Koch, P., Schollmeyer, D., Laufer, S. 4-[2-(4-Fluorophenyl)-1*H*-pyrrol-3-yl]pyridine. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2009, E65, o457.

2008

7. Koch, P., Bäuerlein, C., Jank, H., Laufer, S. Targeting the Ribose and Phosphate Binding Site of p38 Mitogen-Activated Protein (MAP) Kinase: Synthesis and Biological Testing of 2-Alkylsulfanyl-4(5)-Aryl-, 5(4)-Heteroaryl-Substituted Imidazoles. *J. Med. Chem.* 2008, 51, 5630-5640.
6. Laufer, S., Koch, P. Towards the improvement of the synthesis of novel 4(5)-aryl-5(4)-heteroaryl-2-thio-substituted imidazoles and their p38 MAP kinase inhibitory activity. *Org. Biomol. Chem.* 2008, 6, 437-439.
5. Koch, P., Schollmeyer, D., Laufer, S. *tert*-Butyl *N*-benzyl-*N*-(4-methyl-2-pyridyl)carbamate. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2008, E64, o2222.
4. Koch, P., Schollmeyer, D., Laufer, S. *tert*-Butyl *N*-benzyl-*N*-[4-(4-fluorobenzoylmethyl)-2-pyridyl]carbamate. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2008, E64, o2221.
3. Koch, P., Schollmeyer, D., Laufer, S. *tert*-Butyl *N*-(4-methyl-2-pyridyl)carbamate. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2008, E64, o2216.
2. Koch, P., Bäuerlein, C., Schollmeyer, D., Laufer, S. Methyl 4-[5-(4-fluorophenyl)-4-(pyridin-4-yl)-1*H*-imidazol-2-ylsulfanyl]butanoate. *Acta Crystallogr., Sect. E: Struct. Rep. Online* 2008, E64, o1883-o1884.
1. Abu Thaher, B., Koch, P., Del Amo, V., Knochel, P., Laufer, S. A convenient synthesis of 1-(4-fluorophenyl)-2-(4-pyridyl)cyclopentene from cyclopentanone. *Synthesis* 2008, 225-228.

Patents:

2. **Koch, P.**, Laufer, S., Wolfgang, A., Walter, N. CENTRALLY ACTIVE P38ALPHA MAP KINASE INHIBITING COMPOUNDS. WO **2021**/038292 A1.
1. Burnet, M., Laufer, S. **Koch, P.** 2-SULFANYL-SUBSTITUTED IMIDAZOLE DERIVATIVES AND THEIR USE AS CYTOKINE INHIBITORS. U.S. Pat. Appl. Publ. **2009**, US US 8,143,294 B2.