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

Research articles, reviews:

2025

86. 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 NTS_1R Ligands. ***J. Med. Chem.*** 2025, *68*, 19482-19502.
85. 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.
84. 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.
83. Schettler, F., Gattor, A. **Koch, P.**, Keller, M. Characterization of [^{3}H]Propionylated Human Peptide YY – a New Probe for Neuropeptide Y Y_2 Receptor Binding Studies. ***ACS Pharmacol. Transl. Sci.,*** ASAP, 2025, *8*, 785-799.

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, *8,* 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-3β 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 p38α 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]triselenocin-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. (*2S,3'S,3a'R,5'R,7a'R*)-5'-((*E*)-5-(Furan-3-yl)-2-methylpent-1-en-1-yl)-3-hydroxy-3',4,7'-trimethyl-1',2',3',3a',5',7a'-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-3β 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 GSK3β 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-9*H*-pyrimido[4,5-*b*]indole-based Glycogen synthase kinase-3β 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 3β/p38α 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.*** N^1-{4-[2-(Methylthio)-1*H*-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*, 4a*S*, 4b*S*, 6*S*, 7*S*, 8a*S*, 10a*S*)-6,7-dihydroxy-2,4b,8,8,10a-pentamethyl-1,4,4a,4b,5,6,7,8,8a,9,10,10a-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 p38α Mitogen-Activated Protein Kinase to c-Jun N-terminal Kinase 3. ***ACS Omega*** 2018, *3*, 7809-7831.
54. **Koch, P.**, Brunschweiger, 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 p38α 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 p38α MAP kinase inhibitors. ***Molecules*** 2017, *22*, 1729.
49. Eitel, M., Schollmeyer, D., **Koch, P.*** (*E*)-(1-Pyridin-4-yl)-propran-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 Ca^{2+}-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. Brunschweiger, 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 p38α MAP Kinase. ***Anal. Biochem.*** 2016, *503*, 28-40.
42. Ansideri, F., Schollmeyer, D., **Koch, P.*** 1-(3',6'-Dihydroxy-3-oxo-3*H*-spiro[isobenzofuran-1,9'-xanthen]-5-yl)-3-[4-({4-[1-(4-fluorophenyl)-1*H*-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-2*H*-pyran-4-yl)pyridin-2-amine. ***IUCrData*** 2016, *1*, x160804.
40. Eitel, M., Schollmeyer, D., **Koch, P.*** (*E*)-(1-Pyridin-4-yl)-propran-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.**, Laemmerhofer, 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 Actvity 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 p38α 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 p38α 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. Brunschweiger, 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., Brunschweiger 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)-1*H*-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)-1*H*-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)-1*H*-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)-1*H*-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)-1*H*-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 p38α 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 p38α 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 p38α 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 p38α 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 p38α 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.