

## 2018

Spain, M., Wong, J., Nagalingam, G., Batten, J., Hortle, E., Oehlers, S., Jiang, X., Murage, H., Orford, J., Crisologo, P., Triccas, J., Rutledge, P., Todd, M. (2018). Antitubercular bis-substituted cyclam derivatives: Structure-activity relationships and in vivo studies. *Journal of Medicinal Chemistry*, 61(8), 3595-3608. <a href="http://dx.doi.org/10.1021/acs.jmedchem.7b01569">[More Information]</a>

Guardia, A., Baiget, J., Cacho, M., Perez, A., Ortega-Guerra, M., Nxumalo, W., Khanye, S., Rullas, J., Ortega, F., Jimenez, E., Osende, J., Badiola, K., Rutledge, P., Todd, M., et al (2018). Easy-to-synthesize spirocyclic compounds possess remarkable in vivo activity against Mycobacterium tuberculosis. *Journal of Medicinal Chemistry*, 61(24), 11327-11340. <a href="http://dx.doi.org/10.1021/acs.jmedchem.8b01533">[More Information]</a>

Lau, Y., Clegg, J., Price, J., Macquart, R., Todd, M., Rutledge, P. (2018). Molecular Switches for any pH: A Systematic Study of the Versatile Coordination Behaviour of Cyclam Scorpionands. *Chemistry - A European Journal*, 24(7), 1573-1585. <a href="http://dx.doi.org/10.1002/chem.201703488">[More Information]</a>

## 2017

Devi, P., Rutledge, P. (2017). Cyclobutanone analogues of (Beta)-lactam antibiotics: (Beta)-lactamase inhibitors with untapped potential? *ChemBioChem*, 18(4), 338-351. <a href="http://dx.doi.org/10.1002/cbic.201600529">[More Information]</a>

Wong, J., Todd, M., Rutledge, P. (2017). Recent advances in macrocyclic fluorescent probes for ion sensing. *Molecules*, 22(2), 1-28. <a href="http://dx.doi.org/10.3390/molecules22020200">[More Information]</a>

Wong, J., Proschogo, N., Todd, M., Rutledge, P. (2017). Selective displacement of a scorpionand triazole ligand from metalocyclam complexes visualised with NMR spectroscopy. *European Journal of Inorganic Chemistry*, 2017 (7), 1075-1086. <a href="http://dx.doi.org/10.1002/ejic.201601474">[More Information]</a>

McNeill, L., Brown, T., Sami, M., Clifton, I., Burzlaff, N., Claridge, T., Adlington, R., Baldwin, J., Rutledge, P., Schofield, C. (2017). Terminally truncated isopenicillin N synthase generates a dithioester product: Evidence for a thioaldehyde intermediate during catalysis and a new mode of reaction for non-heme iron oxidases. *Chemistry - A European Journal*, 23(52), 12815-12824. <a href="http://dx.doi.org/10.1002/chem.201701592">[More Information]</a>

Hossain, M., Canning, J., Yu, Z., Ast, S., Rutledge, P., Wong, J., Jamalipour, A., Crossley, M. (2017). Time-resolved and temperature tuneable measurements of fluorescent intensity using a smartphone fluorimeter. *Analyst*, 142(11), 1953-1961. <a href="http://dx.doi.org/10.1039/c7an00535k">[More Information]</a>

## 2016

Counsell, A., Jones, A., Todd, M., Rutledge, P. (2016). A direct method for the N-tetraalkylation of azamacrocycles. *Beilstein Journal of Organic Chemistry*, 12, 2457-2461. <a href="http://dx.doi.org/10.3762/bjoc.12.239">[More Information]</a>

Yu, M., Nagalingam, G., Ellis, S., Martinez, E., Sintchenko, V., Spain, M., Rutledge, P., Todd, M., Triccas, J. (2016). Nontoxic metal-cyclam complexes, a new class of compounds with potency against drug-resistant Mycobacterium tuberculosis. *Journal of Medicinal Chemistry*, 59(12), 5917-5921. <a href="http://dx.doi.org/10.1021/acs.jmedchem.6b00432">[More Information]</a>

Wong, J., Ast, S., Yu, M., Flehr, R., Counsell, A., Turner, P., Crisologo, P., Todd, M., Rutledge, P. (2016). Synthesis and evaluation of 1,8-disubstituted-cyclam/naphthalimide conjugates as probes for metal ions. *ChemistryOpen*, 5(4), 375-385. <a href="http://dx.doi.org/10.1002/open.201600010">[More Information]</a>

Hossain, M., Yu, Z., Canning, J., Ast, S., Wong, J., Rutledge, P., Crossley, M., Jamalipour, A. (2016). Temperature Controlled Portable Smartphone Fluorimeter. *The 6th Asia Pacific Optical Sensors Conference*, Shanghai: OSA (Optical Society America). <a href="http://dx.doi.org/10.1364/APOS.2016.W2A.2">[More Information]</a>

## 2015

Hossain, M., Canning, J., Cook, K., Ast, S., Rutledge, P., Jamalipour, A. (2015). Absorption and fluorescence spectroscopy on a smartphone. *Fifth Asia-Pacific Optical Sensors Conference (APOS 2015)*, Washington, USA: SPIE - International Society for Optical Engineering. <a href="http://dx.doi.org/10.1117/12.2184354">[More Information]</a>

Canning, J., Ast, S., Hossain, M., Chan, H., Rutledge, P., Jamalipour, A. (2015). Bend and twist intramolecular charge transfer and emission for selective metal ion sensing. *Optical Materials Express*, 5(11), 2675-2681. <a href="http://dx.doi.org/10.1364/OME.5.002675">[More Information]</a>

Hossain, M., Canning, J., Ast, S., Cook, K., Rutledge, P., Jamalipour, A. (2015). Combined "dual" absorption and fluorescence smartphone spectrometers. *Optics Letters*, 40(8), 1737-1740. <a href="http://dx.doi.org/10.1364/OL.40.001737">[More Information]</a>

Rutledge, P., Challis, G. (2015). Discovery of microbial natural products by activation of silent biosynthetic gene clusters. *Nature Reviews Microbiology*, 13(8), 509-523. <a href="http://dx.doi.org/10.1038/nrmicro3496">[More Information]</a>

Hossain, M., Canning, J., Ast, S., Rutledge, P., Jamalipour, A. (2015). Early Warning Smartphone Diagnostics for Water Security and Analysis Using Real-Time pH Mapping. *Photonic Sensors*, 5(4), 289-297. <a href="http://dx.doi.org/10.1007/s13320-015-0256-x">[More Information]</a>

Yu, M., Wong, J., Tang, C., Turner, P., Todd, M., Rutledge, P. (2015). Efficient deprotection of F-BODIPY derivatives: removal of BF<sub>2</sub> using Bronsted acids. *Beilstein Journal of Organic Chemistry*, 11, 37-41. <a href="http://dx.doi.org/10.3762/bjoc.11.6">[More Information]</a>

Hossain, M., Ast, S., Canning, J., Cook, K., Rutledge, P., Jamalipour, A. (2015). Fluorescent measurements of Zn<sup>2+</sup> on a smartphone. *Fifth Asia-Pacific Optical Sensors Conference (APOS 2015)*, Washington, USA: SPIE - International Society for Optical Engineering. <a href="http://dx.doi.org/10.1117/12.2184246">[More Information]</a>

Porter, D., Poon, B., Rutledge, P. (2015). Iron complexes of tetramine ligands catalyse allylic hydroxy-amination via a nitroso-ene mechanism. *Beilstein Journal of Organic Chemistry*, 11, 2549-2556. <a href="http://dx.doi.org/10.3762/bjoc.11.275">[More Information]</a>

Rutledge, P. (2015). Isopenicillin N Synthase. In Robert P. Hausinger, Christopher J. Schofield (Eds.), *2-Oxoglutarate-Dependent Oxygenases*, (pp. 414-424). Cambridge: RSC Publishing. <a href="http://dx.doi.org/10.1039/9781782621959">[More Information]</a>

Hossain, M., Canning, J., Ast, S., Rutledge, P., Yen, T., Jamalipour, A. (2015). Lab-in-a-phone: Smartphone-based portable fluorometer for pH measurements of environmental water. *IEEE Sensors Journal*, 15(9), 5095-5102. <a href="http://dx.doi.org/10.1109/JSEN.2014.2361651">[More Information]</a>

Devi, P., Barry, S., Houlihan, K., Murphy, M., Turner, P., Jensen, P., Rutledge, P. (2015). Synthesis and structural characterisation of amides from picolinic acid and pyridine-2,6-dicarboxylic acid. *Scientific Reports*, 9, 1-6. <a href="http://dx.doi.org/10.1038/srep09950">[More Information]</a>

Ast, S., Kuke, S., Rutledge, P., Todd, M. (2015). Using click chemistry to tune the properties and the fluorescence response mechanism of structurally similar probes for metal ions. *European Journal of Inorganic Chemistry*, 2015 (1), 58-66. <a href="http://dx.doi.org/10.1002/ejic.201402811">[More Information]</a>

## 2014

Hossain, M., Canning, J., Ast, S., Yen, T., Rutledge, P., Jamalipour, A. (2014). A smartphone fluorometer - the lab-in-a-phone. *Optical Sensors 2014*, Bellingham: Optical Society of America. <a href="http://dx.doi.org/10.1364/SENSORS.2014.SeTh2C.1">[More Information]</a>

Byrne, C., Houlihan, K., Devi, P., Jensen, P., Rutledge, P. (2014). Bio-inspired nitrile hydration by peptidic ligands based on L-cysteine, L-methionine or L-penicillamine and pyridine-2,6-dicarboxylic acid. *Molecules*, 19(12), 20751-20767. <a href="http://dx.doi.org/10.3390/molecules191220751">[More Information]</a>

Hossain, M., Canning, J., Ast, S., Rutledge, P., Webster, R., Jamalipour, A. (2014). Centralised and portable "network forensics" using smartphone-based diagnostics: Case Study - the mapping of tap water pH across Sydney, Australia. *2014 IEEE Photonics Conference, IPC 2014*, Piscataway, USA: Institute of Electrical and Electronics Engineers (IEEE). <a href="http://dx.doi.org/10.1109/IPCon.2014.6995265">[More Information]</a>

Yu, M., Ast, S., Yu, Q., Lo, A., Flehr, R., Todd, M., Rutledge, P. (2014). Incorporating a piperidinyl group in the fluorophore extends the fluorescence lifetime of click-derived cyclam-naphthalimide conjugates. *PloS One*, 9(7), 1-12. <a href="http://dx.doi.org/10.1371/journal.pone.0100761">[More Information]</a>

Yu, M., Ryan, T., Ellis, S., Bush, A., Triccas, J., Rutledge, P., Todd, M. (2014). Neuroprotective peptide-macrocyclic conjugates reveal complex structure-activity relationships in their interactions with amyloid beta. *Metallomics*, 6(10), 1931-1940. <a href="http://dx.doi.org/10.1039/c4mt00122b">[More Information]</a>

Ast, S., Rutledge, P., Todd, M. (2014). pH-Responsive quantum dots (RQDs) that combine a fluorescent nanoparticle with a pH-sensitive dye. *Physical Chemistry Chemical Physics*, 16(46), 25255-25257. <a href="http://dx.doi.org/10.1039/c4cp03914a">[More Information]</a>

Ast, S., Rutledge, P., Todd, M. (2014). The properties and performance of a pH-responsive functionalised nanoparticle. *Faraday Discussions*, 175, 171-187. <a href="http://dx.doi.org/10.1039/c4fd00110a">[More Information]</a>

## 2013

Yu, M., Yu, Q., Rutledge, P., Todd, M. (2013). A fluorescent "allosteric scorpionand" complex visualizes a biological recognition event. *ChemBioChem*, 14(2), 224-229. <a href="http://dx.doi.org/10.1002/cbic.201200637">[More Information]</a>

Yu, M., Lim, N., Ellis, S., Nagase, H., Triccas, J., Rutledge, P., Todd, M. (2013). Incorporation of bulky and cationic cyclam-triazole moieties into marimastat can generate potent MMP inhibitory activity without inducing cytotoxicity. *ChemistryOpen*, 2(3), 99-105. <a href="http://dx.doi.org/10.1002/open.201300014">[More Information]</a>

Dungan, V., Poon, B., Barrett, E., Rutledge, P. (2013). L-Proline derived mimics of the non-haem iron active site catalyse allylic oxidation in acetonitrile solutions. *Tetrahedron Letters*, 54(10), 1236-1238. <a href="http://dx.doi.org/10.1016/j.tetlet.2012.12.095">[More Information]</a>

Cheung, S., McCarl, V., Holmes, A., Coleman, N., Rutledge, P. (2013). Substrate range and enantioselectivity of epoxidation reactions mediated by the ethene-oxidising Mycobacterium strain NBB4. *Applied Microbiology and Biotechnology*, 97(3), 1131-1140. <a href="http://dx.doi.org/10.1007/s00253-012-3975-6">[More Information]</a>

Clifton, I., Ge, W., Adlington, R., Baldwin, J., Rutledge, P. (2013). The crystal structure of an isopenicillin N synthase complex with an ethereal substrate analogue reveals water in the oxygen binding site. *FEBS Letters*, 587(16), 2705-2709. <a href="http://dx.doi.org/10.1016/j.febslet.2013.07.016">[More Information]</a>

Daruzzaman, A., Clifton, I., Adlington, R., Baldwin, J., Rutledge, P. (2013). The crystal structure of isopenicillin N synthase with a dipeptide substrate analogue. *Archives of Biochemistry and Biophysics*, 530(1), 48-53. <a href="http://dx.doi.org/10.1016/j.abb.2012.12.012">[More Information]</a>

Daruzzaman, A., Clifton, I., Adlington, R., Baldwin, J., Rutledge, P. (2013). The Interaction of Isopenicillin N Synthase with Homologated Substrate Analogues delta-(L-alpha-Aminoadipoyl)-L-homocysteiny-L-D-Xaa Characterised by

Protein Crystallography. *ChemBioChem*, 14(5), 599-606. <a href="http://dx.doi.org/10.1002/cbic.201200728">[More Information]</a>

## 2012

Dungan, V., Mueller-Bunz, H., Rutledge, P. (2012). (2S,4S)-3-benzoyl-4-benzyl-2-tert-butyl-1,3-oxazolidin-5-one. *Acta Crystallographica. Section E: Structure Reports Online*, 68(9). <a href="http://dx.doi.org/10.1107/S1600536812035556">[More Information]</a>

Beare, K., Coster, M., Rutledge, P. (2012). Diketoacid Inhibitors of HIV-1 Integrase: From L-708,906 to Raltegravir and Beyond. *Current Medicinal Chemistry*, 19(8), 1177-1192. <a href="http://dx.doi.org/10.2174/092986712799320565">[More Information]</a>

Barry, S., Mueller-Bunz, H., Rutledge, P. (2012). Investigating the oxidation of alkenes by non-heme iron enzyme mimics. *Organic and Biomolecular Chemistry*, 10(36), 7372-7381. <a href="http://dx.doi.org/10.1039/c2ob25834j">[More Information]</a>

Dungan, V., Wong, S., Barry, S., Rutledge, P. (2012). L-proline-derived ligands to mimic the '2-His-1-carboxylate' triad of the non-haem iron oxidase active site. *Tetrahedron*, 68(15), 3231-3236. <a href="http://dx.doi.org/10.1016/j.tet.2012.02.031">[More Information]</a>

Ast, S., Rutledge, P., Todd, M. (2012). Reversing the triazole topology in a cyclam-triazole-dye ligand gives a 10-fold brighter signal response to Zn(2+) in aqueous solution. *European Journal of Inorganic Chemistry*, 2012 (34), 5611-5615. <a href="http://dx.doi.org/10.1002/ejic.201201072">[More Information]</a>

## 2011

Lau, Y., Price, J., Todd, M., Rutledge, P. (2011). A Click Fluorophore Sensor that Can Distinguish Cu(II) and Hg(II) via Selective Anion-Induced Demetallation. *Chemistry - A European Journal*, 17(10), 2850-2858. <a href="http://dx.doi.org/10.1002/chem.201002477">[More Information]</a>

Bridgeman, A., Rutledge, P., Todd, M., Connor, R. (2011). A treasure hunt for chemistry. *Journal of Chemical Education*, 88(4), 437-439. <a href="http://dx.doi.org/10.1021/ed100867m">[More Information]</a>

Lau, Y., Rutledge, P., Watkinson, M., Todd, M. (2011). Chemical sensors that incorporate click-derived triazoles. *Chemical Society Reviews*, 40(5), 2848-2866. <a href="http://dx.doi.org/10.1039/c0cs00143k">[More Information]</a>

Yu, M., Price, J., Jensen, P., Lovitt, C., Shelper, T., Duffy, S., Windus, L., Avery, V., Rutledge, P., Todd, M. (2011). Copper, nickel, and zinc cyclam-amino acid and cyclam-peptide complexes may be synthesized with "click" chemistry and are noncytotoxic. *Inorganic Chemistry*, 50(24), 12823-12835. <a href="http://dx.doi.org/10.1021/ic2020012">[More Information]</a>

Clifton, I., Ge, W., Adlington, R., Baldwin, J., Rutledge, P. (2011). Isopenicillin N synthase binds delta-(L-alpha-aminoadipoyl)-L-Cysteiny-D-thia-allo-Isoleucine through both Sulfur Atoms. *ChemBioChem*, 12(12), 1881-1885. <a href="http://dx.doi.org/10.1002/cbic.201100149">[More

Information]</a>

Lo, A., Salam, N., Hibbs, D., Rutledge, P., Todd, M. (2011). Polyamide-Scorpion Cyclam Lexitropsins Selectively Bind AT-Rich DNA Independently of the Nature of the Coordinated Metal. *PLoS One*, 6(5), e17446-1-e17446-13. <a href="http://dx.doi.org/10.1371/journal.pone.0017446">[More Information]</a>

Hosseini, S., Bhadbhade, M., Clarke, R., Rutledge, P., Rendina, L. (2011). Synthesis, carbohydrate- and DNA-binding studies of cationic 2,2':6',2"-terpyridineplatinum(II) complexes containing N- and S-donor boronic acid ligands. *Dalton Transactions*, 40(2), 506-513. <a href="http://dx.doi.org/10.1039/c0dt00892c">[More Information]</a>

Scully, C., Lau, Y., Jensen, P., Rutledge, P. (2011). Synthesis, electrochemistry and metal binding properties of monosubstituted ferrocenoyl peptides with thioether-containing sidechains. *Journal of Organometallic Chemistry*, 696(3), 715-721. <a href="http://dx.doi.org/10.1016/j.jorganchem.2010.09.056">[More Information]</a>

Clifton, I., Ge, W., Adlington, R., Baldwin, J., Rutledge, P. (2011). The crystal structure of isopenicillin N synthase with delta-(L-alpha-aminoadipoyl)-L-cysteiny-D-methionine reveals thioether coordination to iron. *Archives of Biochemistry and Biophysics*, 516(2), 103-107. <a href="http://dx.doi.org/10.1016/j.abb.2011.09.014">[More Information]</a>

## 2010

Morrison, D., Issa, F., Bhadbhade, M., Groebler, L., Witting, P., Kassiou, M., Rutledge, P., Rendina, L. (2010). Boronated phosphonium salts containing arylboronic acid, closo-carborane, or nido-carborane: synthesis, X-ray diffraction, in vitro cytotoxicity, and cellular uptake. *Journal of Biological Inorganic Chemistry*, 15(8), 1305-1318. <a href="http://dx.doi.org/10.1007/s00775-010-0690-6">[More Information]</a>

Ge, W., Clifton, I., Stok, J., Adlington, R., Baldwin, J., Rutledge, P. (2010). Crystallographic studies on the binding of selectively deuterated LLD- and LLL-substrate epimers by isopenicillin N synthase. *Biochemical and Biophysical Research Communications*, 398(4), 659-664. <a href="http://dx.doi.org/10.1016/j.bbrc.2010.06.129">[More Information]</a>

Dungan, V., Ortin, Y., Mueller-Bunz, H., Rutledge, P. (2010). Design and synthesis of a tetradentate '3-amine-1-carboxylate' ligand to mimic the metal binding environment at the non-heme iron(II) oxidase active site. *Organic and Biomolecular Chemistry*, 8(7), 1666-1673. <a href="http://dx.doi.org/10.1039/b921934j">[More Information]</a>

Manos-Turvey, A., Bulloch, E., Rutledge, P., Baker, E., Lott, J., Payne, R. (2010). Inhibition studies of mycobacterium tuberculosis salicylate synthase (MbtI). *ChemMedChem: chemistry enabling drug discovery*, 5(7), 1067-1079. <a href="http://dx.doi.org/10.1002/cmcd.201000137">[More Information]</a>

Scully, C., Rutledge, P. (2010). Synthesis and electrochemical studies of disubstituted ferrocene/dipeptide conjugates with sulfur-containing side chains. *Tetrahedron*, 66(30), 5653-5659. <a href="http://dx.doi.org/10.1016/j.tet.2010.05.070">[More Information]</a>

Ge, W., Clifton, I., Stok, J., Adlington, R., Baldwin, J., Rutledge, P. (2010). The crystal structure of an LLL-configured

depsipeptide substrate analogue bound to isopenicillin N synthase. *Organic and Biomolecular Chemistry*, 8(1), 122-127. <a href="http://dx.doi.org/10.1039/b910170e">[More Information]</a>

## 2009

Rutledge, P. (2009). Profile: Science in Sydney. *Chemistry World*, 6(9).

Ge, W., Clifton, I., Howard-Jones, A., Stok, J., Adlington, R., Baldwin, J., Rutledge, P. (2009). Structural studies on the reaction of isopenicillin N synthase with a sterically demanding depsipeptide substrate analogue. *ChemBioChem*, 10(12), 2025-2031. <a href="http://dx.doi.org/10.1002/cbic.200900080">[More Information]</a>

## 2008

Barry, S., Rutledge, P. (2008). cis-Dihydroxylation of Alkenes by a Non-Heme Iron Enzyme Mimic. *Synlett*, 2008 (14), 2172-2174. <a href="http://dx.doi.org/10.1055/s-2008-1078248">[More Information]</a>

Ge, W., Clifton, I., Stok, J., Adlington, R., Baldwin, J., Rutledge, P. (2008). Isopenicillin N Synthase Mediates Thiolate Oxidation to Sulfenate in a Depsipeptide Substrate Analogue: Implications for Oxygen Binding and a Link to Nitrile Hydratase? *Journal of the American Chemical Society*, 130(31), 10096-10102. <a href="http://dx.doi.org/10.1021/ja8005397">[More Information]</a>

Scully, C., Jensen, P., Rutledge, P. (2008). Mercury binding by ferrocenoyl peptides with sulfur-containing side chains: Electrochemical, spectroscopic and structural studies. *Journal of Organometallic Chemistry*, 693(17), 2869-2876. <a href="http://dx.doi.org/10.1016/j.jorganchem.2008.06.005">[More Information]</a>

Barry, S., Mueller-Bunz, H., Rutledge, P. (2008). tert-Butyldimethylsilanol hemihydrate. *Acta Crystallographica. Section E: Structure Reports Online*, E64(2008), o1174-U3051. <a href="http://dx.doi.org/10.1107/S1600536808015444">[More Information]</a>

## 2007

Stewart, A., Clifton, I., Adlington, R., Baldwin, J., Rutledge, P. (2007). A cyclobutanone analogue mimics penicillin in binding to isopenicillin N synthase. *ChemBioChem*, 8(16), 2003-2007. <a href="http://dx.doi.org/10.1002/cbic.200700176">[More Information]</a>

Howard-Jones, A., Elkins, J., Clifton, I., Roach, P., Adlington, R., Baldwin, J., Rutledge, P. (2007). Interactions of isopenicillin N synthase with cyclopropyl-containing substrate analogues reveal new mechanistic insight. *Biochemistry*, 46(16), 4755-4762. <a href="http://dx.doi.org/10.1021/bi062314q">[More Information]</a>

## 2006

Murphy, P., Rutledge, P. (2006). Symbiosis in chemistry and biology. *Nature Chemical Biology*, 2(2), 59-62. <a href="http://dx.doi.org/10.1038/nchembio0206-59">[More Information]</a>

Daruzzaman, A., Clifton, I., Adlington, R., Baldwin, J., Rutledge, P. (2006). Unexpected oxidation of a depsipeptide substrate analogue in crystalline isopenicillin N synthase. *ChemBioChem*, 7(2), 351-358. <a

href="http://dx.doi.org/10.1002/cbic.200500282">[More Information]</a>

## 2005

Krall, J., Rutledge, P., Baldwin, J. (2005). Design and synthesis of an isopenicillin N synthase mimic. *Tetrahedron*, 61, 137-143. <a href="http://dx.doi.org/10.1016/j.tet.2004.10.041">[More Information]</a>

Rutledge, P. (2005). Nitriles with a heteroatom attached to the cyanocarbon. In Alan R Katritzky and Richard JK Taylor (Eds.), *Comprehensive organic functional group transformationsII*, (pp. 1023-1080). UK: Pergamon Elsevier.

Long, A., Clifton, I., Roach, P., Baldwin, J., Rutledge, P., Schofield, C. (2005). Structural studies on the reaction of isopenicillin N synthase with the truncated substrate analogues delta-(L- $\alpha$ -aminoadipoyl)-L-cysteinyl-D-alanine. *Biochemistry*, 44(17), 6619-6628. <a href="http://dx.doi.org/10.1021/bi047478q">[More Information]</a>

Howard-Jones, A., Rutledge, P., Clifton, I., Adlington, R., Baldwin, J. (2005). Unique binding of a non-natural L,L-L-substrate by isopenicillin N synthase. *Biochemical and Biophysical Research Communications*, 336, 702-708. <a href="http://dx.doi.org/10.1016/j.bbrc.2005.08.155">[More Information]</a>

## 2004

Grummitt, A., Rutledge, P., Clifton, I., Baldwin, J. (2004). Active-site-mediated elimination of hydrogen fluoride from a fluorinated substrate analogue by isopenicillin N synthase. *Biochemical Journal*, 382(2), 659-666. <a href="http://dx.doi.org/10.1042/BJ20040529">[More Information]</a>

## 2003

Elkins, J., Rutledge, P., Burzlaff, N., Clifton, I., Adlington, R., Roach, P., Baldwin, J. (2003). Crystallographic studies on the reaction of isopenicillin N synthase with an unsaturated substrate analogue. *Organic and Biomolecular Chemistry*, 1, 1455-1460. <a href="http://dx.doi.org/10.1039/b212270g">[More Information]</a>

Long, A., Clifton, I., Roach, P., Baldwin, J., Schofield, C., Rutledge, P. (2003). Structural studies on the reaction of isopenicillin N synthase with the substrate analogue Î<sup>+</sup>-(L-Î<sup>+</sup>-aminoadipoyl)-L-cysteinyl-D-Î<sup>±</sup>-aminobutyrate. *Biochemical Journal*, 372(3), 687-693. <a href="http://dx.doi.org/10.1042/BJ20021627">[More Information]</a>

Ferguson, A., Adlington, R., Martyres, D., Rutledge, P., Cowley, A., Baldwin, J. (2003). Total synthesis of a novel 2-thiabicyclo[3.2.0]heptan-6-one analogue of penicillin N. *Tetrahedron*, 59, 8233-8243. <a href="http://dx.doi.org/10.1016/j.tet.2003.08.004">[More Information]</a>

## 2002

Rutledge, P., Burzlaff, N., Elkins, J., Pickford, M., Baldwin, J., Roach, P. (2002). A device for the high-pressure oxygenation of protein crystals. *Analytical Biochemistry*, 308, 265-268. <a href="http://dx.doi.org/10.1016/S0003-2697(02)00246-4">[More Information]</a>

## 2001

Ogle, J., Clifton, I., Rutledge, P., Elkins, J., Burzlaff, N., Adlington, R., Roach, P., Baldwin, J. (2001). Alternative oxidation by isopenicillin N synthase observed by X-ray diffraction. *Chemistry and Biology*, 8(12), 1231-1237.

Hamilton, C., Yasuhara, A., Baldwin, J., Lloyd, M., Rutledge, P. (2001). Contrasting fates for 6- $\alpha$ -methylpenicillin N upon oxidation by deacetoxycephalosprin C synthase (DAOCS) and deacetoxy/deacetylcephalosporin C synthase (DAOC/DACS). *Bioorganic and Medicinal Chemistry Letters*, 11, 2511-2514.

## 1999

Burzlaff, N., Rutledge, P., Clifton, I., Hensgens, C., Pickford, M., Adlington, R., Roach, P., Baldwin, J. (1999). The reaction cycle of isopenicillin N synthase observed by X-ray diffraction. *Nature*, 401(6754, 14 October 1999), 721-724. <a href="http://dx.doi.org/10.1038/44400">[More Information]</a>