Curriculum vitae

Helma Wennemers
Professor of Organic Chemistry

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Born: 24 June 1969, Offenbach/Main

Helma Wennemers studied chemistry at the Johann-Wolfgang-Goethe University in Frankfurt before moving to Columbia University, New York where she received her PhD degree for graduate studies with W. Clark Still in 1996. Following postdoctoral studies at Nagoya University with Hisashi Yamamoto (1997–1998), she joined the faculty of Basel University as the Bachem-endowed assistant professor in 1999. She was promoted to associate professor (2004) and full professor (2011) at the University of Basel before moving to ETH Zurich in the fall of 2011.

Her research focuses on the development of peptides with functions that are fulfilled in nature by large macromolecules. She utilizes the power of synthesis to access functionalities that nature might have not had in the repertoire of building blocks. The focus is both on practical applications and an understanding of the properties of the peptides on the molecular level. This scope includes the development of peptides as asymmetric catalysts, functionalizable collagen, and peptidic scaffolds for applications in supramolecular and biological chemistry (*e.g.*, cell-penetrating peptides, RNA recognition, and tumor targeting), and the controlled formation of metal nanoparticles.

Education

1996–1998	Postdoctoral fellow with Prof. Hisashi Yamamoto, Nagoya University
1993–1996	PhD thesis with Prof. W. Clark Still, Columbia University, New York
1988–1993	Diploma in Chemistry with Prof. Gerhard Quinkert, Frankfurt University

Professional Appointments

2011–	Professor of Organic Chemistry, ETH Zürich
2003–2011	Associate Professor at the University of Basel
1999–2003	Bachem Assistant Professor at the University of Basel

Awards and Honorary Lectureships

2019	Netherlands Scholar Award for Supramolecular Chemistry
2019	Goodman Lecture, University of California at San Diego
2019	Arun Guthikonda Lecture, Columbia University
2019	Bruno-Werdelmann-Lecture, University of Essen-Duisburg
2018	Boehringer–Ingelheim Lectureship, Massachusetts Institute of Technology
2017	Inhoffen Medal
2017	The Chemical Record Lectureship, Japan
2017	Novartis Chemistry Lectureship, University of Pennsylvania
2017	Calvin Lecture, University of California at Berkeley
2016	Pedler Award, Royal Society of Chemistry
2016	JSPS Lectureship Japan
2015	Fellow of ChemPubSoc Europe
2015	Novartis Chemistry Lectureship, University of Illinois–Champaign
2014	European Journal of Organic Chemistry (EURJOC) Lectureship
2013	Fellow of the Royal Society of Chemistry
2012	Novartis Chemical Biology Lecture, University of Wisconsin–Madison
2011	Novartis Chemical Science Lecture, Columbia University, New York
2011	Auer von Welsbach Lectureship, Austrian Academy of Sciences, Vienna
2010	Leonidas Zervas Award, European Peptide Society
2010	Holger Erdtman Lectureship, KTH, Sweden

2010	David Ginsberg Memorial Lectureship, Technion Haifa, Israel
2004	Göring Visiting Professorship, University of Wisconsin–Madison
2003	Hellmut–Bredereck Fellowship
1999–2003	BACHEM endowed Assistant Professorship
1998–2000	Liebig–Fellowship from the "Fonds der Chemischen Industrie"
1996	Postdoctoral fellowship from the Japanese Society for the Promotion of Science
1996	Hammett Award Columbia University, New York
1993–1995	Kekulé–Fellowship from the "Fonds der Chemischen Industrie"
1991–1993	Studienstiftung des Deutschen Volkes

Other Professional Appointments and Services (selected)

2016–	Member of the Advisory Board of the MPI for Polymer Research, Mainz
2015	Chair of *ISAC Conference* on *"Challenges in Chemical Biology"*
2014	Co-Chair of the Gordon Research Conference on "Stereochemistry"
2014–	Member of the Board of Directors of Bachem
2014–	Representative of Switzerland in the Council of the European Society of Organic Chemistry
2013	Member of the ERC-Starting Grant Evaluation Committee
2012–2018	Member of the Advisory Board of the MPI für Kohlenforschung, Mülheim
2011–2018	Representative of Switzerland in the Council of the European Peptide Society
2011–2014	Representative of Switzerland in ChemPubSoc Europe
2009–2017	Member of the Organizing Committee of the "Bürgenstock Conference"
2010–2013	Member of the "Verlagsbeirat" of the German Chemical Society and Wiley VCH
2008–2012	Member of the Advisory Board of NRSC–Catalysis, The Netherlands

International Advisory and Editorial Boards of Journals

2018–	Member of the Editorial Board of *Angewandte Chemie*
2017	Issue Co-Editor for *Accounts of Chemical Research*
2016–	Member of the Editorial Advisory Board of *C&E News*
2016–	Member of the Editorial Advisory Board of *ACS Chemical Biology*
2015–2017	Member of the Editorial Advisory Board of *ACS Catalysis*
2013–2016	Member of the Editorial Advisory Board of *Journal of Organic Chemistry*
2012–	Member of the Editorial Advisory Board of *Accounts of Chemical Research*
2012–	Member of the Advisory Board of *Chemical Communications*
2011–	Member of the Editorial Advisory Board of *Organic and Biomolecular Chemistry*
2010–2016	Member of the Editorial Board of *Chemical Society Reviews*
2010–	Member of the International Advisory Board of *The Chemical Record*
2008	Issue Co-Editor for *Current Opinion in Chemical Biology*
2005–2007	Member of the Editorial Advisory Board of *Journal of Combinatorial Chemistry*

Invited Lectures: >290

Ph.D. Degrees Supervised: 33 + 14 (current)

Postdoctorates Supervised: 21 + 3 (current)

Publications H. Wennemers (peer reviewed original research publications)

109. "Oligoprolines guide the self-assembly of quaterthiophenes",
N. A. K. Ochs, U. Lewandowska, W. Zajaczkowski, S. Corra, S. Reger, A. Herdlitschka, S. Schmid, W. Pisula, K. Müllen, P. Bäuerle, H. Wennemers,
Chem. Sci., **2019**, *10*, 5391–5396.

108. "Hydrophobic Moieties Bestow Fast-Folding and Hyperstability on Collagen Triple Helices", J. Egli, C. Siebler, M. Köhler, R. Zenobi, H. Wennemers,
J. Am. Chem. Soc., **2019**, *141*, 5607–5611.

107. "Effect of β^3-Amino Acids on the Performance of the Peptidic Catalyst H-DPro-Pro-Glu-NH_2",
T. Schnitzer, H. Wennemers,
Helv. Chim. Acta, **2019**, *102*, e1900070.

106. "γ-Azaproline Confers pH-Responsiveness and Functionalizability on Collagen Triple Helices",
M. R. Aronoff, J. Egli, M. Menichelli, H. Wennemers,
Angew. Chem. Int. Ed., **2019**, *58*, 3143–3146.

105. "4-Naphthylmethyl Proline Forms a Channel Structure",
C. Foletti, N. Trapp, S. Loosli, B. Lewandowski, H. Wennemers,
Helv. Chim. Acta, **2019**, *102*, e1900052.

104. "Elucidating the Structure−Activity Relationship of the Pentaglutamic Acid Sequence of Minigastrin with Cholecystokinin Receptor Subtype 2",
A. Ritler, M. S. Shoshan, X. Deupi, P. Wilhelm, R. Schibli, H. Wennemers, M. Béhé,
Bioconjugate Chem. **2019**, *30*, 657−666.

103. "Combined experimental and theoretical study of long-range H–F interactions in α-fluoro amides"
E. Cosimi, M.-O. Ebert, N. Trapp, H. Wennemers,
Chem. Commun., **2019**, *55*, 2253–2256

102. "Synthesis of 4-(Arylmethyl)proline Derivatives"
S. Loosli, C. Foletti, M. Papmeyer, H. Wennemers,
Synlett, **2019**, *30*, 508–510.

101. "Peptide coated Platinum Nanoparticles with Selective Toxicity against Liver Cancer Cells"
M. S. Shoshan, T. Vonderach, B. Hattendorf, H. Wennemers,
Angew. Chem. Int. Ed., **2019**, *58*, 4901–4905.

100. "Conformational Properties of a Peptidic Catalyst: Insights from NMR Spectroscopic Studies"
C. Rigling, J. K. Kisunzu, J. Duschmalé, D. Häussinger, M. Wiesner, M.-O. Ebert, H. Wennemers
J. Am. Chem. Soc., **2018**, *140*, 10829–10838.

99. "Effect of γ-substituted Proline Derivatives on the Performance of the Peptidic Catalyst H-DPro-Pro-Glu-NH_2"
T. Schnitzer, H. Wennemers
Synthesis, **2018**, *50*, 4377–4382.

98. "Positional Isomers of Chromophore-Peptide Conjugates Self-Assemble Into Different Morphologies"
U. Lewandowska, S. Corra, W. Zajaczkowski, N. A. K. Ochs, M. S. Shoshan, J. Tanabe, S. Stappert, C. Li, E. Yashima, W. Pisula, K. Müllen, H. Wennemers
Chem. Eur. J., **2018**, *24*, 12623–12629.

97. "Functionalized Proline-Rich Peptides Bind the Bacterial Second Messenger c-di-GMP"
C. Foletti, R. A. Kramer, H. Mauser, U. Jenal, K. H. Bleicher, H. Wennemers
Angew. Chem. Int. Ed., **2018**, *57*, 7729–7733.

96. "Influence of the *trans*/*cis* Conformer Ratio on the Stereoselectivity of Peptidic Catalysts"
T. Schnitzer, H. Wennemers
J. Am. Chem. Soc., **2017**, *139*, 15356–15362.

95. "Cross-Linked Collagen Triple Helices by Oxime Ligation"
N. B. Hentzen, L. E. J. Smeenk, J. Witek, S. Riniker, H. Wennemers
J. Am. Chem. Soc., **2017**, *139*, 12815–12820.

94. "Synthesis of Monothiomalonates (MTMs) – Versatile Thioester Enolate Equivalents for C–C Bond Formations"
O. D. Engl, J. Saadi, E. Cosimi, H. Wennemers
Helv. Chim. Acta, **2017**, *100*, e1700196.

93. "Effect of N- and C-Terminal Functional Groups on the Stability of Collagen Triple Helices"
J. Egli, R. S. Erdmann, P. J. Schmidt, H. Wennemers
Chem. Commun., **2017**, *53*, 11036–11039.

92. "A Triaxial Supramolecular Weave"
U. Lewandowska, W. Zajaczkowski, S. Corra, J. Tanabe, R. Borrmann, E. M. Benetti, S. Stappert, K. Watanabe, N. A. K. Ochs, R. Schaeublin, C. Li, E. Yashima, W. Pisula, K. Müllen, H. Wennemers
Nat. Chem., **2017**, *9*, 1068–1072.

91. "Is more better? A comparison of tri- and tetrapeptidic catalysts"
T. Schnitzer, M. Wiesner, P. Krattiger, J. D. Revell, H. Wennemers
Org. Biomol. Chem., **2017**, *15*, 5877–5881.

90. "pH-Responsive Aminoproline-Containing Collagen Triple Helices"
J. Egli, C. Siebler, B. Maryasin, R. S. Erdmann, C. Bergande, C. Ochsenfeld, H. Wennemers
Chem. Eur. J., **2017**, *23*, 7938–7944.

89. "A Stereoselective Tripeptide Catalyst for Conjugate Addition Reactions of Acetophenones to Dicyanoolefins"
T. Schnitzer, H. Wennemers
Synlett, **2017**, *28*, 1282–1286.

88. "Crystal Structures of Peptidic Catalysts of the H-DPro-Pro-Xaa Type"
C. E. Grünenfelder, J. K. Kisunzu, N. Trapp, R. Kastl, H. Wennemers
Biopolymers (Pept. Sci.), **2017**,*108*, e22912.

87. "Effect of Preorganized Charge Display on the Cell Penetrating Properties of Cationic Peptides"
Y. A. Nagel, P. S. Raschle, H. Wennemers
Angew. Chem. Int. Ed., **2017**, *56*, 122–126.

86. "Stereoselective Synthesis of α-Fluoro-γ-nitro Thioesters under Organocatalytic Conditions"
E. Cosimi, J. Saadi, H. Wennemers
Org. Lett., **2016**, *18*, 6014−6017.

85. "Stereoselective Organocatalyzed Synthesis of *α*-Fluorinated *β*-Amino Thioesters and their Application in Peptide Synthesis"
E. Cosimi, O. D. Engl, J. Saadi, M.-O. Ebert, H. Wennemers
Angew. Chem. Int. Ed., **2016**, *55*, 13127–13131.

84. "Peptide-Catalyzed Stereoselective Conjugate Addition Reactions of Aldehydes to Maleimide"
C. E. Grünenfelder, J. K. Kisunzu, H. Wennemers
Angew. Chem. Int. Ed., **2016**, *55*, 8571–8574.

83. "Size-controlled formation of noble metal nanoparticles in aqueous solution with a thiol-free tripeptide"
S. Corra, U. Lewandowska, E. M. Benetti, H. Wennemers
Angew. Chem. Int. Ed., **2016**, *55*, 8542–8545.

82. "Effect of Structural Modifications on the Self-Assembly of Oligoprolines Conjugated with Sterically Demanding Chromophores"
U. Lewandowska, W. Zajaczkowski, Y. Ma, C. Li, W. Pisula, K. Müllen, H. Wennemers
Chem. Eur. J., **2016**, *22*, 3804–3809.

81. "Enantioselective Aldol Reactions with Masked Fluoroacetates"
J. Saadi, H. Wennemers
Nature Chem., **2016**, *8*, 276–280.

80. "Importance of Dipole Moments and Ambient Polarity for the Conformation of Xaa-Pro Moieties – A Combined Experimental and Theoretical Study"
C. Siebler, B. Maryasin, M. Kuemin, R. S. Erdmann, C. Rigling, C. Grünenfelder, C. Ochsenfeld, H. Wennemers
Chem. Sci., **2015**, *6*, 6725–6730.

79. "Stereoselective Organocatalytic Synthesis of Oxindoles with Adjacent Tetrasubstituted Stereocenters"
O. D. Engl, S. P. Fritz, H. Wennemers
Angew. Chem. Int. Ed., **2015**, *54*, 8193–8197.

78. "Shape Persistence of Polyproline II Helical Oligoprolines"
L. Garbuio, B. Lewandowski, P. Wilhelm, L. Ziegler, M. Yulikov, H. Wennemers, G. Jeschke
Chem. Eur. J., **2015**, *21*, 10747–10753.

77. "Crystal Structure of (4*S*)-Aminoproline: Conformational Insight into a pH-Responsive Proline Derivative"
C. Siebler, N. Trapp, H. Wennemers
J. Pept. Sci., **2015**, *21*, 208–211.

76. "A Crystal Structure of an Oligoproline PPII-Helix, at Last"
P. Wilhelm, B. Lewandowski, N. Trapp, H. Wennemers
J. Am. Chem. Soc., **2014**, *136*, 15829–15832.

75. "Hierarchical Supramolecular Assembly of Sterically Demanding π-Systems by Conjugation with Oligoprolines"
U. Lewandowska, W. Zajaczkowski, C. Li, F. Bouillière, D. Wang, K. Koynov, W. Pisula, K. Müllen, H. Wennemers
Angew. Chem. Int. Ed., **2014**, *53*, 12537–12541.

74. "An Organocatalytic Route to Dihydrocoumarins and Dihydroquinolinones in all Stereochemical Configurations"
O. D. Engl, S. P. Fritz, A. Käslin, H. Wennemers
Org. Lett., **2014**, *16*, 5454–5457.

73. "Switchable Proline Derivatives: Tuning the Conformational Stability of the Collagen Triple Helix by pH Changes"
C. Siebler, R. S. Erdmann, H. Wennemers
Angew. Chem. Int. Ed., **2014**, *53*, 10340–10344.

72. "Stereoselective Synthesis of Indolines via Organocatalytic Thioester Enolate Addition Reactions"
A. Kolarovic, A. Käslin, H. Wennemers
Org. Lett., **2014**, *16*, 4236–4239.

71. "Peptide Catalysis in Aqueous Emulsions"
J. Duschmalé, S. Kohrt, H. Wennemers
Chem. Commun., **2014**, *50,* 8109–8112.

70. "Organocatalytic Stereoselective Synthesis of Acyclic Nitrothioesters with All-Carbon Quaternary Stereogenic Centers"
Y. Arakawa, S. Fritz, H. Wennemers
J. Org. Chem., **2014**, *79*, 3937–3945.

69. "Stereoselective Metal-free Synthesis of β-Amino Thioesters Bearing Tertiary and Quaternary Stereogenic Centers"
A. Bahlinger, S. Fritz, H. Wennemers
Angew. Chem. Int. Ed., **2014**, *53*, 8779–8783.

68. "Hybrid Bombesin Analogues – Combining an Agonist and an Antagonist in Defined Distances for Optimized Tumor Targeting"
C. Kroll, R. Mansi, F. Braun, S. Dobitz, H. Maecke, H. Wennemers
J. Am. Chem. Soc., **2013**, *135*, 16793–16796.

67. "Organocatalytic Asymmetric Conjugate Addition of Aldehydes to Nitroolefins: Identification of Catalytic Intermediates and the Stereoselectivity-Determining Step by ESI-MS"
F. Bächle, J. Duschmalé, C. Ebner, A. Pfaltz, H. Wennemers
Angew. Chem. Int. Ed., **2013**, *52,* 12619–12623.

66. "Guiding Suprastructure Chirality of an Oligothiophene by a Single Amino Acid"
E. Schillinger, M. Kümin, A. Digennaro, E. Mena-Osteritz, S. Schmid, H. Wennemers, P. Bäuerle
Chem. Mater. **2013**, *25*, 4511−4521.

65. "Chiral suprastructures of asymmetric oligothiophene-hybrids induced by a single proline"
A. Digennaro, H. Wennemers, G. Joshi, S. Schmid, E. Mena-Osteritz, P. Bäuerle
Chem. Commun., **2013**, *49*, 10929–10931.

64. "Peptide-Catalyzed Stereoselective Conjugate Addition Reactions Generating All-Carbon Quaternary Stereogenic Centers"
R. Kastl, H. Wennemers
Angew. Chem. Int. Ed., **2013**, *52*, 7228–7232.

63. "Peptide-catalyzed 1,4-Addition Reactions of Aldehydes to Nitroolefins"
R. Kastl, Y. Arakawa, J. Duschmale, M. Wiesner, H. Wennemers
Chimia, **2013**, *67*, 279–282.

62. "Stoichiometric Reactions of Enamines Derived from Diphenylprolinol Silyl Ethers with Nitro Olefins and Lessons for the Corresponding Organocatalytic Conversions – a Survey"
D. Seebach, X. Sun, M.-O. Ebert, W. B. Schweizer, N. Purkayastha, A. K. Beck, J. Duschmalé, H. Wennemers, T. Mukaiyama, M. Benohoud, Y. Hayashi, M. Reiher
Helv. Chim. Acta, **2013**, *96*, 799–852.

61. "Impact of the Proline Residue on Ligand Binding of Neurotensin Receptor 2 (NTS2)-Selective Peptide–Peptoid Hybrids"
C. Held, H. Hübner, R. Kling, Y. A. Nagel, H. Wennemers, P. Gmeiner
ChemMedChem, **2013**, *8*, 772–778.

60. "Conformational stability of triazolyl functionalized collagen triple helices"
R. S. Erdmann, H. Wennemers
Biorg. Med. Chem. **2013,** *21*, 3565–3568.

59. "Effects of Internal and External Carboxylic Acids on the Reaction Pathway of Organocatalytic 1,4-Addition Reactions between Aldehydes and Nitroolefins"
J. Duschmalé, J. Wiest, M. Wiesner, H. Wennemers
Chem. Sci. **2013,** *4*, 1312–1318.

58. "Enamine Catalysis in Flow with an Immobilized Peptidic Catalyst",
Y. Arakawa, H. Wennemers
ChemSusChem. **2013,** *6*, 242–245.

57. "Design and Synthesis of Nucleoproline Amino Acids for the Straightforward Preparation of Chiral and Conformationally Constrained Nucleopeptides"
R. A. Kramer, K. H. Bleicher, H. Wennemers
Helv. Chim. Acta **2012,** *95*, 2621–2634.

56. "Effect of Sterically Demanding Substituents on the Conformational Stability of the Collagen Triple Helix"
R. S. Erdmann, H. Wennemers
J. Am. Chem. Soc. **2012**, *134*, 17117–17124.

55. "Influence of Sequential Modifications and Carbohydrate Variations in Synthetic AFGP Analogues on Conformation and Antifreeze Activity"
L. Nagel, C. Budke, R. S. Erdmann, A. Dreyer, H. Wennemers, T. Koop, N. Sewald
Chem. Eur. J. **2012**, *18*, 12783–12793.

54. "Correlating Molecular with Nanoscopic Dimensions - Oligoprolines as Scaffolds for the Formation of Ag-Nanoparticles in Defined Sizes"
G. Upert, F. Bouillère, H. Wennemers
Angew. Chem. Int. Ed. **2012**, *51*, 4231–4234.

53. "Conformational Stability of Collagen Triple Helices Functionalized in the Yaa Position by Click Chemistry"
R. S. Erdmann, H. Wennemers
Org. Biomol. Chem. **2012**, *10*, 1982–1986.

52. "Adapting to Substrate Challenges: Peptides as Catalysts for Conjugate Addition Reactions of Aldehydes to α,β-Disubstituted Nitroolefins"
J. Duschmalé, H. Wennemers
Chem. Eur. J. **2012**, *18*, 1111–1120.

51. "Mono Thiomalonates as Thioester Enolate Equivalents – Enantioselective Conjugate Addition Reactions to Nitroolefins Under Mild Conditions"
P. Clerici, H. Wennemers
Org. Biomol. Chem. **2012**, *10*, 110–113.

50. "Importance of Ring Puckering versus Interstrand Hydrogen Bonds for the Conformational Stability of Collagen"
R. S. Erdmann, H. Wennemers
Angew. Chem. Int. Ed. **2011**, *50*, 6835–6838.

49. "Efficient Recovery and Reuse of an Immobilized Peptidic Catalyst"
Y. Arakawa, M. Wiesner, H. Wennemers
Adv. Synth. Catal. **2011**, *353*, 1201–1206.

48. "Functionalizable Oligoprolines as Molecular Scaffolds"
Y. Nagel, M. Kuemin, H. Wennemers
Chimia **2011**, *65*, 264–267.

47. "Reversing the Enantioselectivity of a Peptidic Catalyst by Changing the Solvent"
M. Messerer, H. Wennemers
Synlett **2011**, 499–502.

46. "Functionalizable Collagen Model Peptides"
R. S. Erdmann, H. Wennemers
J. Am. Chem. Soc. **2010**, *132*, 13957–13959.

45. "Tuning the *cis*:*trans* Conformer Ratio of Xaa-Pro Amide Bonds by Intramolecular Hydrogen Bonds - Effect on the Stability of the PPII Helix"
M. Kuemin, Y. A. Nagel, S. Schweizer, F. W. Monnard, C. Ochsenfeld, H. Wennemers
Angew. Chem. Int. Ed. **2010**, *49,* 6324–6327.

44. "Temperature Induced Transition between Polyproline I and II Helices – Quantitative Fitting of Hysteresis Effects"
M. Kuemin, J. Engel, H. Wennemers
J. Pept. Sci. **2010**, *16*, 596–600.

43. "Enamine Catalysis with Low Catalyst Loadings – High Efficiency via Kinetic Studies"
M. Wiesner, G. Upert, G. Angelici, H. Wennemers
J. Am. Chem. Soc. **2010**, *132*, 6–7.

42. "Nanoliter Plates – Versatile Tools for the Screening of Split-and-Mix Libraries On-bead and Off-bead"
G. Upert, C. A. Merten, H. Wennemers
Chem. Commun. **2010**, *46*, 2209–2211.

41. "Peptide Catalyzed Conjugate Addition Reactions of Aldehydes to Nitroolefins"
M. Wiesner, H. Wennemers
Synthesis **2010**, 1568–1571.

40. "Investigation of active crystal morphogenesis peptide sequences from peptide libraries by crystallization on peptide functionalized beads"
P. Krattiger, N Nassif, A. Völkel, Y. Mastai, H. Wennemers, H. Cölfen
Colloids and Surfaces A **2010**, *354*, 218–225.

39. "Effects of Terminal Functional Groups on the Stability of the Polyproline II Structure – A Combined Experimental and Theoretical Study"
M. Kuemin, S. Schweizer, C. Ochsenfeld, H. Wennemers
J. Am. Chem. Soc. **2009**, *131*, 15474–15482.

38. "Tripeptides of the Type H-D-Pro-Pro-Xaa-NH_2 as Catalysts for Asymmetric 1,4-Addition Reactions: Structural Requirements for High Catalytic Efficiency"
M. Wiesner, M. Neuburger, H. Wennemers
Chem. Eur. J. **2009**, *15*, 10103–10109.

37. "(4*R*)- and (4*S*)-Azidoprolines – Conformation Directing Amino Acids and Sites for Functionalization"
R. S. Erdmann, M. Kümin, H. Wennemers
Chimia **2009**, *63*, 197–200.

36. "Ag-Nanoparticle Formation Induced by Peptides Identified Within Split-and-Mix Libraries – Generation of Ag-Nanoparticles in Different Sizes"
K. Belser, T. Vig Slenters, C. Pfumbidzai, G. Upert, L. Mirolo, K. M. Fromm, H. Wennemers
Angew. Chem. Int. Ed. **2009**, *48*, 3661–3664.

35. "Synthesis of Fmoc-Pro-Hyp(TBDPS)-Gly-OH and its Application as a Versatile Building Block for the Preparation of Collagen Model Peptides"
R. S. Erdmann, H. Wennemers
Synthesis **2009**, 143–147.

34. "Peptide Catalyzed Asymmetric Conjugate Addition Reactions of Aldehydes to Nitroethylene – A Convenient Entry into γ^2-Amino Acids"
M. Wiesner, J. D. Revell, S. Tonazzi, H. Wennemers
J. Am. Chem. Soc. **2008**, *130*, 5610–5611.

33. "Investigating Sequence Space: How Important is the Spatial Arrangement of Functional Groups in the Asymmetric Aldol Reaction Catalyst H-Pro-Pro-Asp-NH_2?"
J. D. Revell, H. Wennemers
Adv. Synth. Catal. **2008**, *350*, 1046–1052.

32. "Ionic Self-Assembled Molecular Receptor-Based Liquid Crystals with Tripeptide Recognition Capabilities"
C. F. J. Faul, P. Krattiger, B. Smarsly, H. Wennemers
J. Mater. Chem. **2008**, *18*, 2962–2967.

31. "Distinguishing stereoisomers of di-, tri-, and tetrapeptides using capillary electrophoresis with contactless conductivity detection"
X. Y. Gong, D. Dobrunz, M. Kümin, M. Wiesner, J. D. Revell, H. Wennemers, P. Hauser
J. Sep. Sci. **2008**, *31*, 565–573.

30. "Tripeptides as Efficient Asymmetric Catalysts for 1,4-Addition Reactions of Aldehydes to Nitroolefins - A Rational Approach"
M. Wiesner, J. D. Revell, H. Wennemers
Angew. Chem. Int. Ed. **2008**, *47*, 1871–1874.

29. "Macrocyclic Diketopiperazine Receptors: Effect of Macrocyclization on the Binding Properties of Two-armed Receptors"
J. Bernard, H. Wennemers
Org. Lett. **2007**, *9*, 4283–4286.

28. "New ionic liquid-modified silica gels as recyclable materials for L-proline- or H-Pro-Pro-Asp-NH_2-catalyzed aldol reactions"
C. Aprile, F. Giacalone, M. Gruttadauria, A. Mossuto Marculescu, R. Noto, J. D. Revell, H. Wennemers
Green Chemistry **2007**, *9*, 1328–1334.

27. "Mimicry of Polyketide Synthases – Enantioselective 1,4-Addition Reactions of Malonic Acid Half Thioesters to Nitroolefins"
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