Wenhua Chen

List of Publications by Year
in descending order

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Version: 2024-02-01

124 papers	3,179 citations	147801 31 h-index	175258 52 g-index
126 all docs	126 docs citations	126 times ranked	2067 citing authors

#	Article	IF	Citations
1	A High-Efficiency 142â€“182-GHz SiGe BiCMOS Power Amplifier With Broadband Slotline-Based Power Combining Technique. IEEE Journal of Solid-State Circuits, 2022, 57, 371-384.	5.4	21
2	Convolutional Neural Network for Behavioral Modeling and Predistortion of Wideband Power Amplifiers. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 3923-3937.	11.3	55
3	A Fully Integrated 3.5-/4.9-GHz Dual-Band GaN MMIC Doherty Power Amplifier Based on Multi-Resonant Circuits. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 416-431.	4.6	7
4	A 250â€“310 GHz Power Amplifier With 15-dB Peak Gain in 130-nm SiGe BiCMOS Process for Terahertz Wireless System. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 1-12.	3.1	16
5	An 18â€“50-GHz Î”â€“Îž Modulated Quasi-Continuous Digital Vector-Modulation Phase Shifter With Variable Gain Control. IEEE Microwave and Wireless Components Letters, 2022, 32, 60-63.	3.2	1
6	Artificial Intelligence-Based Power-Temperature Inclusive Digital Predistortion. IEEE Transactions on Industrial Electronics, 2022, 69, 13872-13880.	7.9	6
7	A Highly Linear GaN MMIC Doherty Power Amplifier Based on Phase Mismatch Induced AMâ€“PM Compensation. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 1334-1348.	4.6	7
8	A Reconfigurable S-/X-Band GaN MMIC Power Amplifier. IEEE Microwave and Wireless Components Letters, 2022, 32, 547-550.	3.2	6
9	A Low Complexity Moving Average Nested GMP Model for Digital Predistortion of Broadband Power Amplifiers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 2070-2083.	5.4	6
10	High-Efficiency Dual-Band Filtering Doherty Power Amplifier Based on Multi-Function Circuit. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2697-2709.	4.6	8
11	Broadband Three-Stage Pseudoload Modulated Balanced Amplifier With Power Back-Off Efficiency Enhancement. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2710-2722.	4.6	16
12	Highly Efficient Terahertz Beam-Steerable Integrated Radiator Based on Tunable Boundary Conditions. IEEE Journal of Solid-State Circuits, 2022, 57, 1314-1331.	5.4	1
13	Novel Design Space of Broadband High-Efficiency Parallel-Circuit Class-EF Power Amplifiers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 3465-3475.	5.4	8
14	Investigation of High-Efficiency Parallel-Circuit Class-EF Power Amplifiers With Arbitrary Duty Cycles. IEEE Transactions on Industrial Electronics, 2021, 68, 5000-5012.	7.9	13
15	Hybrid Harmonic Cancellation Digital Predistortion With a Feedback Loop Compensation. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 2222-2226.	3.0	8
16	Systematic Design Methodology of Broadband Doherty Amplifier Using Unified Matching/Combining Networks With an Application to GaN MMIC Design. IEEE Access, 2021, 9, 5791-5805.	4.2	12
17	Linearization of Radio-Over-Fiber Cloud-RAN Transmitters Using Pre- and Post-Distortion Techniques. IEEE Photonics Technology Letters, 2021, 33, 339-342.	2.5	3
18	A Complexity-Reduced Harmonic-Cancellation Digital Predistortion for HF Transmitters. IEEE Microwave and Wireless Components Letters, 2021, 31, 529-532.	3.2	8

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19	A Fully Integrated 47.6% Fractional Bandwidth GaN MMIC Distributed Efficient Power Amplifier With Modified Input Matching and Power Splitting Network. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 3132-3145.	4.6	14
20	Theory and Design Methodology for Reverse-Modulated Dual-Branch Power Amplifiers Applied to a 4G/5G Broadband GaN MMIC PA Design. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 3120-3131.	4.6	11
21	A 24â€“44 GHz Broadband Transmitâ€“Receive Front End in 0.13-Î¼m SiGe BiCMOS for Multistandard 5G Applications. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 3463-3474.	4.6	10
22	Multi-Stream Spatial Digital Predistortion for Fully-Connected Hybrid Beamforming Massive MIMO Transmitters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 2998-3011.	5.4	15
23	Augmented Convolutional Neural Network for Behavioral Modeling and Digital Predistortion of Concurrent Multiband Power Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4142-4156.	4.6	22
24	2-D Magnitude-Selective Affine Function-Based Digital Predistortion for Concurrent Dual-Band Terminal Power Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4209-4222.	4.6	7
25	A 24-29.5 GHz Voltage-Combined Doherty Power Amplifier Based on Compact Low-Loss Combiner. IEEE Transactions on Circuits and Systems II: Express Briefs, 2021, 68, 2342-2346.	3.0	13
26	A Methodology and a Metric for the Assessment of the Linearizability of Broadband Nonlinear Doherty Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2020, 30, 764-767.	3.2	2
27	Power Scalable Beam-Oriented Digital Predistortion for Compact Hybrid Massive MIMO Transmitters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 4994-5006.	5.4	17
28	A Broadband Millimeter-Wave Continuous-Mode Class-F Power Amplifier Based on the Deembedded Transistor Model. IEEE Microwave and Wireless Components Letters, 2020, 30, 609-612.	3.2	8
29	A 210-GHz Magnetless Nonreciprocal Isolator in 130-nm SiGe BiCMOS Based on Resistor-Free Unidirectional Ring Resonators. IEEE Microwave and Wireless Components Letters, 2020, 30, 524-527.	3.2	8
30	A 28-GHz 16-Gb/s High Efficiency 16-QAM Transmitter in 65-nm CMOS. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1835-1845.	5.4	7
31	A Robust and Scalable Harmonic Cancellation Digital Predistortion Technique for HF Transmitters. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 2796-2807.	4.6	14
32	Linearization of a Directional Modulation Transmitter Using Low-Complexity Cascaded Digital Predistortion. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 4467-4478.	4.6	8
33	An Efficient Directional Modulation Transmitter With Novel Crest Factor Reduction Technique. IEEE Microwave and Wireless Components Letters, 2019, 29, 554-556.	3.2	10
34	A Dual-Band GaN MMIC Power Amplifier With Hybrid Operating Modes for 5G Application. IEEE Microwave and Wireless Components Letters, 2019, 29, 228-230.	3.2	45
35	A Compact Ka/Q Dual-Band GaAs MMIC Doherty Power Amplifier With Simplified Offset Lines for 5G Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3110-3121.	4.6	33
36	Linearization for Hybrid Beamforming Array Utilizing Embedded Over-the-Air Diversity Feedbacks. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5235-5248.	4.6	43

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37	Highly Linear and Magnetless Isolator Based on Weakly Coupled Nonreciprocal Metamaterials. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 4322-4331.	4.6	12
38	The Nested-Mode Power Amplifiers for Highly Efficient Multi-Octave Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 5114-5126.	4.6	5
39	Improved Three-Stage Doherty Amplifier Design With Impedance Compensation in Load Combiner for Broadband Applications. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 778-786.	4.6	78
40	Multiband and Multimode Concurrent PA With Novel Intermodulation Tuning Network for Linearity Improvement. IEEE Microwave and Wireless Components Letters, 2018, 28, 248-250.	3.2	12
41	Reduced Cost Digital Predistortion Only With In-Phase Feedback Signal. IEEE Microwave and Wireless Components Letters, 2018, 28, 257-259.	3.2	7
42	Beam-Oriented Digital Predistortion for 5G Massive MIMO Hybrid Beamforming Transmitters. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3419-3432.	4.6	120
43	An Energy-Efficient <inline-formula> <tex-math notation="LaTeX">Ka </tex-math> </inline-formula>/<inline-formula> <tex-math notation="LaTeX">Q </tex-math> </inline-formula> Dual-Band Power Amplifier MMIC in 0.1-<inline-formula> <tex-math notation="LaTeX">mu </tex-math> </inline-formula>m GaAs Process. IEEE Microwave and Wireless Components Letters, 2018, 28, 530-532.	3.2	22
44	Low Computational Complexity Digital Predistortion Based on Direct Learning With Covariance Matrix. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 4274-4284.	4.6	22
45	Systematic Crest Factor Reduction and Efficiency Enhancement of Dual-Band Power Amplifier Based Transmitters. IEEE Transactions on Broadcasting, 2017, 63, 111-122.	3.2	15
46	A Broadband Doherty Power Amplifier Based on Continuous-Mode Technology. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 4505-4517.	4.6	125
47	Low Feedback Sampling Rate Digital Predistortion for Wideband Wireless Transmitters. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 3528-3539.	4.6	45
48	Oxygen-induced nano-faceting of Re(<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq0 0 0 rgBT /Overlock 10 635, 85-93.	1.9	2
49	A Novel Doherty Transmitter Based on Antenna Active Load Modulation. IEEE Microwave and Wireless Components Letters, 2015, 25, 271-273.	3.2	13
50	Nanofaceted Metal Surfaces. , 2015, , 301-338.		1
51	Selective Oxidation of Ammonia by Co-adsorbed Oxygen on Iridium Surfaces: Formation of N2O. Catalysis Letters, 2015, 145, 757-761.	2.6	3
52	A Novel Harmonics-Suppression Coupled-Line Gysel Power Divider for Complex Terminated Impedances. Electromagnetics, 2014, 34, 633-658.	0.7	4
53	Concurrent Multi-Band Envelope Modulated Power Amplifier Linearized Using Extended Phase-Aligned DPD. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 3298-3308.	4.6	15
54	Nitrogen-induced reconstruction and faceting of Re(112Â¯1). Journal of Chemical Physics, 2014, 140, 024707.	3.0	5

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55	Theoretical Study of Carbon Adsorption on Re Surfaces: Morphological Instability. Catalysis Letters, 2014, 144, 1667-1673.	2.6	1
56	A Concurrent Dual-Band Uneven Doherty Power Amplifier with Frequency-Dependent Input Power Division. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 552-561.	5.4	92
57	Efficient Pruning Technique of Memory Polynomial Models Suitable for PA Behavioral Modeling and Digital Predistortion. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2290-2299.	4.6	27
58	A Robust Augmented Complexity-Reduced Generalized Memory Polynomial for Wideband RF Power Amplifiers. IEEE Transactions on Industrial Electronics, 2014, 61, 2389-2401.	7.9	71
59	â€˜Newâ€™ solutions of Classâ€E power amplifier with finite dc feed inductor at any duty ratio. IET Circuits, Devices and Systems, 2014, 8, 311-321.	1.4	16
60	Theoretical and experimental studies of hydrogen adsorption and desorption on Ir surfaces. Physical Chemistry Chemical Physics, 2013, 15, 12815.	2.8	6
61	Transmitter Architecture for CA: Carrier Aggregation in LTE-Advanced Systems. IEEE Microwave Magazine, 2013, 14, 78-86.	0.8	62
62	A Time Misalignment Tolerant 2D-Memory Polynomials Predistorter for Concurrent Dual-Band Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2013, 23, 501-503.	3.2	12
63	Behavioral modeling for concurrent dual-band power amplifiers using 2D hammerstein/wiener models. International Journal of RF and Microwave Computer-Aided Engineering, 2013, 23, 646-654.	1.2	7
64	Morphological stability of oxygen- and nitrogen-covered Ru$(11ar 21)$(112Â¯1). Journal of Chemical Physics, 2013, 139, 084707.	3.0	3
65	Enhanced Analysis and Design Method of Concurrent Dual-Band Power Amplifiers With Intermodulation Impedance Tuning. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 4544-4558.	4.6	58
66	Digital Predistortion for Concurrent Dual-Band Transmitters Using 2-D Modified Memory Polynomials. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 281-290.	4.6	153
67	Reduction of Nitric Oxide by Acetylene on Ir Surfaces with Different Morphologies: Comparison with Reduction of NO by CO. Langmuir, 2013, 29, 1113-1121.	3.5	13
68	Design of Compact Dual-Band Power Dividers With Frequency-Dependent Division Ratios Based on Multisection Coupled Line. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 467-475.	2.5	29
69	Twoâ€dimensional crest factor reduction for performance improvement of concurrent dualâ€band power amplifiers. Electronics Letters, 2013, 49, 1163-1165.	1.0	10
70	Resistive Second-Harmonic Impedance Continuous Class-F Power Amplifier With Over One Octave Bandwidth for Cognitive Radios. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2013, 3, 489-497.	3.6	40
71	2D augmented Hammerstein model for concurrent dual-band power amplifiers. Electronics Letters, 2012, 48, 1214.	1.0	27
72	Subsampling Feedback Loop Applicable to Concurrent Dual-Band Linearization Architecture. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1990-1999.	4.6	36

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73	Oxidation of CO by NO on planar and faceted Ir(210). Journal of Chemical Physics, 2012, 136, 224701.	3.0	9
74	Low-complexity 2D behavioural model for concurrent dual-band power amplifiers. Electronics Letters, 2012, 48, 620.	1.0	23
75	Nanofaceted C/Re(112Ì…1): Fabrication, Structure, and Template for Synthesizing Nanostructured Model Pt Electrocatalyst for Hydrogen Evolution Reaction. ACS Nano, 2012, 6, 1404-1409.	14.6	18
76	New surfaces stabilized by adsorbate-induced faceting. Journal of Physics Condensed Matter, 2012, 24, 265003.	1.8	3
77	Modified Least Squares Extraction for Volterra-Series Digital Predistorter in the Presence of Feedback Measurement Errors. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 3559-3570.	4.6	17
78	Design of Compact Dual-Polarized Antennas for MIMO Handsets. International Journal of Antennas and Propagation, 2012, 2012, 1-8.	1.2	1
79	MIMO Antenna Design and Channel Modeling. International Journal of Antennas and Propagation, 2012, 2012, 1-2.	1.2	2
80	Hybrid envelope tracking for efficiency enhancement in concurrent dualâ€band PAs. Microwave and Optical Technology Letters, 2012, 54, 662-664.	1.4	2
81	Study of Conformal Switchable Antenna System on Cylindrical Surface for Isotropic Coverage. IEEE Transactions on Antennas and Propagation, 2011, 59, 776-783.	5.1	41
82	Linearization of Concurrent Dual-Band Power Amplifier Based on 2D-DPD Technique. IEEE Microwave and Wireless Components Letters, 2011, 21, 685-687.	3.2	122
83	Design and Linearization of Concurrent Dual-Band Doherty Power Amplifier With Frequency-Dependent Power Ranges. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2537-2546.	4.6	147
84	Design and preliminary evaluation of a compact four-element terminal multiple-input multiple-output antenna for receiving antenna selection. IET Microwaves, Antennas and Propagation, 2011, 5, 756.	1.4	1
85	A novel concurrent dualâ€mode classâ€e PA using dualâ€band stub tapped transformer. Microwave and Optical Technology Letters, 2011, 53, 171-174.	1.4	4
86	A compact CPWâ€FED circular patch antenna with pattern and polarization diversities. Microwave and Optical Technology Letters, 2011, 53, 968-972.	1.4	8
87	Growth of gold nanoparticles on faceted O/Ru(11â€“20) nanotemplate. Surface Science, 2011, 605, 1457-1461.	1.9	6
88	Nano-faceting of the Ru surface. Surface Science, 2010, 604, L12-L15.	1.9	6
89	Reduction of NO by CO on Unsupported Ir: Bridging the Materials Gap. ChemPhysChem, 2010, 11, 2515-2520.	2.1	20
90	A novel broadband VHF SiC MESFET classâ€E high power amplifier. Microwave and Optical Technology Letters, 2010, 52, 272-276.	1.4	3

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91	Design of asymmetrical spurline filter for a high power sic MESFET class-E power amplifier. Microwave and Optical Technology Letters, 2010, 52, 1650-1652.	1.4	6
92	A compact DVBâ€H antenna with varactorâ€tuned matching circuit. Microwave and Optical Technology Letters, 2010, 52, 1786-1789.	1.4	15
93	Hexagonal patch antenna with Tâ€shaped slot for frequency switching and conical radiation. Microwave and Optical Technology Letters, 2010, 52, 2585-2588.	1.4	0
94	An Endfire Beam-Switchable Antenna Array Used in Vehicular Environment. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 195-198.	4.0	29
95	Growth of oxygen-induced nanoscale-pyramidal facets on Rh(210) surface. Physical Review B, 2010, 81, .	3.2	9
96	A Switchable Matching Circuit for Compact Wideband Antenna Designs. IEEE Transactions on Antennas and Propagation, 2010, 58, 3450-3457.	5.1	38
97	A Triband Shunt-Fed Omnidirectional Planar Dipole Array. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 850-853.	4.0	35
98	Polarization Reconfigurable Slot Antenna With a Novel Compact CPW-to-Slotline Transition for WLAN Application. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 252-255.	4.0	103
99	A Dual-Polarization Slot Antenna Using a Compact CPW Feeding Structure. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 191-194.	4.0	158
100	A Novel Hybrid-Fed Patch Antenna With Pattern Diversity. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 562-565.	4.0	92
101	Formation of Oxygen Induced Nanopyramids on Rh(210) Surface. , 2009, , .		0
102	First-principles studies on adsorbate-induced faceting of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Re</mml:mtext><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mn>11</mml:mn>	3.2	11
103	Physical Review B, 2009, 79, . Adsorption and decomposition of NO on O-covered planar and faceted Ir(2 1 0). Surface Science, 2009, 603, 3136-3144.	1.9	20
104	Oxygen induced facet formation on Rh(210) surface. Applied Surface Science, 2009, 256, 371-375.	6.1	3
105	A Quadband Antenna With Reconfigurable Feedings. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 1069-1071.	4.0	22
106	A Tripolarization Antenna Fed by Proximity Coupling and Probe. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 465-467.	4.0	41
107	Morphological Instability of Metallic Surfaces: Adsorbate Induced Nanoscale Faceting. Materials Research Society Symposia Proceedings, 2009, 1217, 1.	0.1	0
108	Novel planar taperedâ€slotâ€fed UWB antenna. Microwave and Optical Technology Letters, 2008, 50, 2280-2283.	1.4	3

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109	Nanoscale surface chemistry over faceted substrates: structure, reactivity and nanotemplates. Chemical Society Reviews, 2008, 37, 2310.	38.1	81
110	First-Principles Studies on Oxygen-Induced Faceting of Ir(210). ACS Nano, 2008, 2, 1280-1288.	14.6	32
111	Structure Sensitivity in Adsorption and Decomposition of NO on Ir. Journal of Physical Chemistry C, 2008, 112, 19113-19120.	3.1	21
112	Integrated Dual-Band Antenna System Design Incorporating Cell Phone Bezel. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 585-587.	4.0	6
113	Facet Stability in Oxygen-Induced Nanofaceting of Re(123Ì...1). ACS Nano, 2007, 1, 449-455.	14.6	30
114	Multiband antenna with parasitic branches for laptop applications. Electronics Letters, 2007, 43, 1012.	1.0	50
115	A novel compact reconfigurable polarization and pattern antenna. Microwave and Optical Technology Letters, 2007, 49, 2802-2805.	1.4	7
116	Structure Sensitivity in the Oxidation of CO on Ir Surfaces. Langmuir, 2006, 22, 3166-3173.	3.5	32
117	Morphological evolution in oxygen-induced faceting ofRe(123Â¯1). Physical Review B, 2006, 74, .	3.2	26
118	Decomposition of Ammonia and Hydrogen on Ir Surfaces:â€‰ Structure Sensitivity and Nanometer-Scale Size Effects. Journal of the American Chemical Society, 2005, 127, 5014-5015.	13.7	66
119	Sidelobe Reduction Algorithm for Electronic Steering Parasitic Antenna. IEICE Transactions on Communications, 2005, E88-B, 4406-4409.	0.7	1
120	Oxygen-induced nano-faceting of Ir(210). Surface Science, 2004, 549, 1-23.	1.9	54
121	Methanol Reactions over Oxygen-Modified Re Surfaces:Â Influence of Surface Structure and Oxidationâ€. Journal of Physical Chemistry B, 2004, 108, 14643-14651.	2.6	38
122	Adsorption and Decomposition of Acetylene on Planar and Faceted Ir(210). Journal of Physical Chemistry B, 2003, 107, 5231-5242.	2.6	27
123	Nanoscale surface chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6503-6508.	7.1	27
124	Preferential Nucleation and Self-Limiting Growth of Cu Nanoclusters on S(4 Ã— 4)/W(111). Journal of Physical Chemistry B, 2002, 106, 6419-6430.	2.6	5