Wenhua Chen

List of Publications by Year
in descending order

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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 Dual-Polarization Slot Antenna Using a Compact CPW Feeding Structure. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 191-194.	4.0	158
2	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
3	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
4	A Broadband Doherty Power Amplifier Based on Continuous-Mode Technology. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 4505-4517.	4.6	125
5	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
6	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
7	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
8	A Novel Hybrid-Fed Patch Antenna With Pattern Diversity. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 562-565.	4.0	92
9	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
10	Nanoscale surface chemistry over faceted substrates: structure, reactivity and nanotemplates. Chemical Society Reviews, 2008, 37, 2310.	38.1	81
11	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
12	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
13	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
14	Transmitter Architecture for CA: Carrier Aggregation in LTE-Advanced Systems. IEEE Microwave Magazine, 2013, 14, 78-86.	0.8	62
15	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
16	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
17	Oxygen-induced nano-faceting of Ir(210). Surface Science, 2004, 549, 1-23.	1.9	54
18	Multiband antenna with parasitic branches for laptop applications. Electronics Letters, 2007, 43, 1012.	1.0	50

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19	Low Feedback Sampling Rate Digital Predistortion for Wideband Wireless Transmitters. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 3528-3539.	4.6	45
20	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
21	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
22	A Tripolarization Antenna Fed by Proximity Coupling and Probe. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 465-467.	4.0	41
23	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
24	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
25	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
26	A Switchable Matching Circuit for Compact Wideband Antenna Designs. IEEE Transactions on Antennas and Propagation, 2010, 58, 3450-3457.	5.1	38
27	Subsampling Feedback Loop Applicable to Concurrent Dual-Band Linearization Architecture. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1990-1999.	4.6	36
28	A Triband Shunt-Fed Omnidirectional Planar Dipole Array. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 850-853.	4.0	35
29	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
30	Structure Sensitivity in the Oxidation of CO on Ir Surfaces. Langmuir, 2006, 22, 3166-3173.	3.5	32
31	First-Principles Studies on Oxygen-Induced Faceting of Ir(210). ACS Nano, 2008, 2, 1280-1288.	14.6	32
32	Facet Stability in Oxygen-Induced Nanofaceting of Re(123Ì…1). ACS Nano, 2007, 1, 449-455.	14.6	30
33	An Endfire Beam-Switchable Antenna Array Used in Vehicular Environment. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 195-198.	4.0	29
34	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
35	Nanoscale surface chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6503-6508.	7.1	27
36	Adsorption and Decomposition of Acetylene on Planar and Faceted Ir(210). Journal of Physical Chemistry B, 2003, 107, 5231-5242.	2.6	27

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37	2D augmented Hammerstein model for concurrent dual-band power amplifiers. Electronics Letters, 2012, 48, 1214.	1.0	27
38	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
39	Morphological evolution in oxygen-induced faceting ofRe(123Â¯1). Physical Review B, 2006, 74, .	3.2	26
40	Low-complexity 2D behavioural model for concurrent dual-band power amplifiers. Electronics Letters, 2012, 48, 620.	1.0	23
41	A Quadband Antenna With Reconfigurable Feedings. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 1069-1071.	4.0	22
42	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
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	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
45	Structure Sensitivity in Adsorption and Decomposition of NO on Ir. Journal of Physical Chemistry C, 2008, 112, 19113-19120.	3.1	21
46	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
47	Adsorption and decomposition of NO on O-covered planar and faceted Ir(2 1 0). Surface Science, 2009, 603, 3136-3144.	1.9	20
48	Reduction of NO by CO on Unsupported Ir: Bridging the Materials Gap. ChemPhysChem, 2010, 11, 2515-2520.	2.1	20
49	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
50	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
51	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
52	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
53	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
54	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

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55	A compact DVBâ€H antenna with varactorâ€tuned matching circuit. Microwave and Optical Technology Letters, 2010, 52, 1786-1789.	1.4	15
56	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
57	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
58	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
59	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
60	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
61	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
62	A Novel Doherty Transmitter Based on Antenna Active Load Modulation. IEEE Microwave and Wireless Components Letters, 2015, 25, 271-273.	3.2	13
63	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
64	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
65	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
66	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
67	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
68	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
69	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> Physical Review B, 2009, 79.	3.2	11
70	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
71	Twoâ€dimensional crest factor reduction for performance improvement of concurrent dualâ€band power amplifiers. Electronics Letters, 2013, 49, 1163-1165.	1.0	10
72	An Efficient Directional Modulation Transmitter With Novel Crest Factor Reduction Technique. IEEE Microwave and Wireless Components Letters, 2019, 29, 554-556.	3.2	10

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73	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
74	Growth of oxygen-induced nanoscale-pyramidal facets on Rh(210) surface. Physical Review B, 2010, 81, .	3.2	9
75	Oxidation of CO by NO on planar and faceted Ir(210). Journal of Chemical Physics, 2012, 136, 224701.	3.0	9
76	A compact CPWâ€FED circular patch antenna with pattern and polarization diversities. Microwave and Optical Technology Letters, 2011, 53, 968-972.	1.4	8
77	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
78	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
79	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
80	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
81	A Complexity-Reduced Harmonic-Cancellation Digital Predistortion for HF Transmitters. IEEE Microwave and Wireless Components Letters, 2021, 31, 529-532.	3.2	8
82	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
83	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
84	A novel compact reconfigurable polarization and pattern antenna. Microwave and Optical Technology Letters, 2007, 49, 2802-2805.	1.4	7
85	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
86	Reduced Cost Digital Predistortion Only With In-Phase Feedback Signal. IEEE Microwave and Wireless Components Letters, 2018, 28, 257-259.	3.2	7
87	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
88	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
89	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
90	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

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91	Integrated Dual-Band Antenna System Design Incorporating Cell Phone Bezel. IEEE Antennas and Wireless Propagation Letters, 2008, 7, 585-587.	4.0	6
92	Nano-faceting of the Ru surface. Surface Science, 2010, 604, L12-L15.	1.9	6
93	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
94	Growth of gold nanoparticles on faceted O/Ru(11â€“20) nanotemplate. Surface Science, 2011, 605, 1457-1461.	1.9	6
95	Theoretical and experimental studies of hydrogen adsorption and desorption on Ir surfaces. Physical Chemistry Chemical Physics, 2013, 15, 12815.	2.8	6
96	Artificial Intelligence-Based Power-Temperature Inclusive Digital Predistortion. IEEE Transactions on Industrial Electronics, 2022, 69, 13872-13880.	7.9	6
97	A Reconfigurable S-/X-Band GaN MMIC Power Amplifier. IEEE Microwave and Wireless Components Letters, 2022, 32, 547-550.	3.2	6
98	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
99	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
100	Nitrogen-induced reconstruction and faceting of Re(112Â¯1). Journal of Chemical Physics, 2014, 140, 024707.	3.0	5
101	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
102	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
103	A Novel Harmonics-Suppression Coupled-Line Gysel Power Divider for Complex Terminated Impedances. Electromagnetics, 2014, 34, 633-658.	0.7	4
104	Novel planar taperedâ€slotâ€fed UWB antenna. Microwave and Optical Technology Letters, 2008, 50, 2280-2283.	1.4	3
105	Oxygen induced facet formation on Rh(210) surface. Applied Surface Science, 2009, 256, 371-375.	6.1	3
106	A novel broadband VHF SiC MESFET classâ€E high power amplifier. Microwave and Optical Technology Letters, 2010, 52, 272-276.	1.4	3
107	New surfaces stabilized by adsorbate-induced faceting. Journal of Physics Condensed Matter, 2012, 24, 265003.	1.8	3
108	Morphological stability of oxygen- and nitrogen-covered Ru$(11ar 21)$(112Â¯1). Journal of Chemical Physics, 2013, 139, 084707.	3.0	3

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109	Selective Oxidation of Ammonia by Co-adsorbed Oxygen on Iridium Surfaces: Formation of N2O. Catalysis Letters, 2015, 145, 757-761.	2.6	3
110	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
111	MIMO Antenna Design and Channel Modeling. International Journal of Antennas and Propagation, 2012, 2012, 1-2.	1.2	2
112	Hybrid envelope tracking for efficiency enhancement in concurrent dualâ€band PAs. Microwave and Optical Technology Letters, 2012, 54, 662-664.	1.4	2
113	Oxygen-induced nano-faceting of Re(<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq1 1 0.784314 rgBT /Ove 635, 85-93.	1.9	2
114	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
115	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
116	Design of Compact Dual-Polarized Antennas for MIMO Handsets. International Journal of Antennas and Propagation, 2012, 2012, 1-8.	1.2	1
117	Theoretical Study of Carbon Adsorption on Re Surfaces: Morphological Instability. Catalysis Letters, 2014, 144, 1667-1673.	2.6	1
118	Nanofaceted Metal Surfaces. , 2015, , 301-338.		1
119	An 18â€“50-GHz Î”â€“Î£ 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
120	Sidelobe Reduction Algorithm for Electronic Steering Parasitic Antenna. IEICE Transactions on Communications, 2005, E88-B, 4406-4409.	0.7	1
121	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
122	Formation of Oxygen Induced Nanopyramids on Rh(210) Surface. , 2009, , .		0
123	Morphological Instability of Metallic Surfaces: Adsorbate Induced Nanoscale Faceting. Materials Research Society Symposia Proceedings, 2009, 1217, 1.	0.1	0
124	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