

Francisco de Leon

List of Publications by Year in descending order

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141
papers

3,998
citations

109321

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145
docs citations

145
times ranked

2731
citing authors

#	ARTICLE	IF	CITATIONS
1	Improvement of the Standard Ampacity Calculations for Power Cables Installed in Trefoil Formations in Ventilated Tunnels. IEEE Transactions on Power Delivery, 2022, 37, 627-637.	4.3	3
2	Determination of Instantaneous Powers From a Novel Time-Domain Parameter Identification Method of Non-Linear Single-Phase Circuits. IEEE Transactions on Power Delivery, 2022, 37, 3608-3619.	4.3	10
3	New Method to Measure Deep-Saturated Magnetizing Inductances for Dual Reversible Models of Single-Phase Two-Winding Transformers. IEEE Transactions on Power Delivery, 2021, 36, 488-491.	4.3	8
4	Investment Deferral of Feeder Upgrades Revealed by System-Wide Unbalanced Dynamic Rating: Harvesting the Hidden Capacity of Distribution Systems Discovered by Thermal Map Technology. IEEE Transactions on Power Delivery, 2021, 36, 1594-1602.	4.3	3
5	A Self-Organizing Multi-Agent System for Distributed Voltage Regulation. IEEE Transactions on Smart Grid, 2021, 12, 4102-4112.	9.0	9
6	Mitigation of Half-Cycle Saturation of Adjacent Transformers During HVDC Monopolar Operation—Part II: Detecting Zero-Sequence Fault Currents. IEEE Transactions on Power Delivery, 2020, 35, 16-24.	4.3	20
7	Review of Wildfire Management Techniques—Part I: Causes, Prevention, Detection, Suppression, and Data Analytics. IEEE Transactions on Power Delivery, 2020, 35, 430-439.	4.3	67
8	Quantitative Evaluation of DER Smart Inverters for the Mitigation of FIDVR in Distribution Systems. IEEE Transactions on Power Delivery, 2020, 35, 420-429.	4.3	16
9	Experimental Study of Magnetic Effects of Steel Tanks on Three-Phase Transformer Transients. IEEE Transactions on Power Delivery, 2020, 35, 665-673.	4.3	4
10	Closed-Form Determination of the Impedance Locus Plot of Fault Current Limiters: Asymmetrical Faults. IEEE Transactions on Power Delivery, 2020, 35, 754-762.	4.3	0
11	Review of Wildfire Management Techniques—Part II: Urgent Call for Investment in Research and Development of Preventative Solutions. IEEE Transactions on Power Delivery, 2020, 35, 440-450.	4.3	26
12	Real-Time Transient Stability Assessment Using Dynamic Equivalents and Nonlinear Observers. IEEE Transactions on Power Systems, 2020, 35, 2981-2992.	6.5	14
13	Load Estimation of Complex Power Networks from Transformer Measurements and Forecasted Loads. Complexity, 2020, 2020, 1-14.	1.6	1
14	Introduction to the Special Issue on Advances in Condition Monitoring and Assessment of Power Equipment. IEEE Transactions on Power Delivery, 2019, 34, 1219-1220.	4.3	5
15	Generalized Circuit Model for Eddy Current Effects in Multi-Winding Transformers. IEEE Transactions on Power Delivery, 2019, 34, 638-650.	4.3	5
16	Experimentally Validated Method to Measure the λ and i Characteristics of Asymmetric Three-Phase Transformers. IEEE Transactions on Magnetics, 2019, 55, 1-9.	2.1	5
17	Mitigation of Half-Cycle Saturation of Adjacent Transformers During HVDC Monopolar Operation—Part I: Mitigation Principle and Device Design. IEEE Transactions on Power Delivery, 2019, 34, 2232-2239.	4.3	16
18	Retrofitting the BCTRAN Transformer Model With Nonlinear Magnetizing Branches for the Accurate Study of Low-Frequency Deep Saturating Transients. IEEE Transactions on Power Delivery, 2018, 33, 2344-2353.	4.3	21

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19	Smart load management of distributionâ€™s toroidal transformers using a dynamic thermal model. IET Generation, Transmission and Distribution, 2018, 12, 142-149.	2.5	17
20	Looping Radial Distribution Systems Using Superconducting Fault Current Limiters: Feasibility and Economic Analysis. IEEE Transactions on Power Systems, 2018, 33, 2486-2495.	6.5	21
21	Centralized Unbalanced Dispatch of Smart Distribution DC Microgrid Systems. IEEE Transactions on Smart Grid, 2018, 9, 2852-2861.	9.0	21
22	Dynamic Demand Response Using Customer Coupons Considering Multiple Load Aggregators to Simultaneously Achieve Efficiency and Fairness. IEEE Transactions on Smart Grid, 2018, 9, 3112-3121.	9.0	40
23	An Online Data-Driven Technique for the Detection of Transformer Winding Deformations. IEEE Transactions on Power Delivery, 2018, 33, 600-609.	4.3	31
24	Experimental Evaluation of Available Computational Methods for Eddy Current and Hysteresis Losses for Cables Installed in Steel Pipes. IEEE Transactions on Power Delivery, 2018, 33, 1777-1786.	4.3	7
25	Estimation of Design Parameters of Single-Phase Distribution Transformers from Terminal Measurements. , 2018, , .		0
26	Two-Zone Geological Soil Moisture Migration Model for Cable Thermal Rating. IEEE Transactions on Power Delivery, 2018, 33, 3196-3204.	4.3	9
27	Enhanced Thermal Model of Power Cables Installed in Ducts for Ampacity Calculations. IEEE Transactions on Power Delivery, 2018, 33, 2404-2411.	4.3	23
28	Closed-Form Determination of the Impedance Locus Plot of Fault Current Limiters: A Rigorous Approach With Graphical Representation. IEEE Transactions on Power Delivery, 2018, 33, 2710-2717.	4.3	3
29	Time Series Power Flow Framework for the Analysis of FIDVR Using Linear Regression. IEEE Transactions on Power Delivery, 2018, 33, 2946-2955.	4.3	12
30	Analysis of Energy Savings of CVR Including Refrigeration Loads in Distribution Systems. IEEE Transactions on Power Delivery, 2018, 33, 158-168.	4.3	26
31	Controlling Non-Synchronous Microgrids for Load Balancing of Radial Distribution Systems. IEEE Transactions on Smart Grid, 2017, 8, 2608-2616.	9.0	43
32	Parameter Estimation of Three-Phase Transformer Models for Low-Frequency Transient Studies From Terminal Measurements. IEEE Transactions on Magnetics, 2017, 53, 1-8.	2.1	13
33	Optimal design of resonant coupled multi-receiver wireless power transfer systems. , 2017, , .		4
34	Thermal Analysis of Power Cables Installed in Solid Bottom Trays Using an Equivalent Circuit. IEEE Transactions on Power Delivery, 2017, 32, 2130-2139.	4.3	8
35	Conceptual Modeling Framework to Integrate Resilient and Interdependent Infrastructure in Extreme Weather. Journal of Infrastructure Systems, 2017, 23, .	1.8	39
36	Determination of the Optimal Switching Frequency for Distribution System Reconfiguration. IEEE Transactions on Power Delivery, 2017, 32, 2060-2069.	4.3	67

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37	Estimation of Design Parameters of Single-Phase Distribution Transformers From Terminal Measurements. IEEE Transactions on Power Delivery, 2017, 32, 2031-2039.	4.3	18
38	Reduction of Stray Loss in Power Transformers Using Horizontal Magnetic Wall Shunts. IEEE Transactions on Magnetics, 2017, 53, 1-7.	2.1	43
39	Analysis and design of efficient IPT wireless charging systems for electric vehicle. , 2017, , .		3
40	Design of a multi-agent system for distributed voltage regulation. , 2017, , .		5
41	Prioritizing the Restoration of Network Transformers Using Distribution System Loading and Reliability Indices. IEEE Transactions on Power Delivery, 2017, 32, 1236-1243.	4.3	6
42	Magnetic field distribution in a WPT system for electric vehicle charging. , 2016, , .		4
43	Supplementary damping controller of grid connected dc micro-grids based on Q-learning. , 2016, , .		2
44	Duality-Derived Transformer Models for Low-Frequency Electromagnetic Transientsâ€”Part II: Complementary Modeling Guidelines. IEEE Transactions on Power Delivery, 2016, 31, 2420-2430.	4.3	32
45	Design of a wireless charging system with a phaseâ€”controlled inverter under varying parameters. IET Power Electronics, 2016, 9, 2461-2470.	2.1	24
46	Experimental Parameter Determination and Laboratory Verification of the Inverse Hysteresis Model for Single-Phase Toroidal Transformers. IEEE Transactions on Magnetics, 2016, 52, 1-9.	2.1	10
47	Duality Derived Transformer Models for Low-Frequency Electromagnetic Transientsâ€”Part I: Topological Models. IEEE Transactions on Power Delivery, 2016, 31, 2410-2419.	4.3	65
48	Reduction of Inrush Currents in Toroidal Transformers by Sector Winding Design. IEEE Transactions on Power Electronics, 2016, , 1-1.	7.9	8
49	Evaluation of DC Links on Dense-Load Urban Distribution Networks. IEEE Transactions on Power Delivery, 2016, 31, 1317-1326.	4.3	35
50	Optimal Power Dispatch Under Load Uncertainty Using a Stochastic Approximation Method. IEEE Transactions on Power Systems, 2016, 31, 4495-4503.	6.5	6
51	Investigation of Transformer-Based Solutions for the Reduction of Inrush and Phase-Hop Currents. IEEE Transactions on Power Electronics, 2016, 31, 3506-3516.	7.9	13
52	Benefits of a Nonsynchronous Microgrid on Dense-Load LV Secondary Networks. IEEE Transactions on Power Delivery, 2016, 31, 1076-1084.	4.3	21
53	Combined Effect of CVR and DG Penetration in the Voltage Profile of Low-Voltage Secondary Distribution Networks. IEEE Transactions on Power Delivery, 2016, 31, 286-293.	4.3	63
54	Mitigation of Geomagnetically Induced Currents by Neutral Switching. IEEE Transactions on Power Delivery, 2015, 30, 1999-2006.	4.3	45

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55	Introducing Mutual Heating Effects in the Ladder-Type Soil Model for the Dynamic Thermal Rating of Underground Cables. IEEE Transactions on Power Delivery, 2015, 30, 1958-1964.	4.3	22
56	A Reconfigurable Auto-Loop Microgrid. IEEE Transactions on Power Delivery, 2015, 30, 1644-1645.	4.3	11
57	Duality-Based Transformer Model Including Eddy Current Effects in the Windings. IEEE Transactions on Power Delivery, 2015, 30, 2312-2320.	4.3	17
58	Enhanced Analytical Method for the Calculation of the Maximum Inrush Currents of Single-Phase Power Transformers. IEEE Transactions on Power Delivery, 2015, 30, 2590-2599.	4.3	25
59	Adaptive soil model for real-time thermal rating of underground power cables. IET Science, Measurement and Technology, 2015, 9, 654-660.	1.6	15
60	Equivalent circuit for the thermal analysis of cables in non-vented vertical risers. IET Science, Measurement and Technology, 2015, 9, 606-614.	1.6	6
61	Lissajous Curve Methods for the Identification of Nonlinear Circuits: Calculation of a Physical Consistent Reactive Power. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 2874-2885.	5.4	15
62	Elimination of Residual Flux in Transformers by the Application of an Alternating Polarity DC Voltage Source. IEEE Transactions on Power Delivery, 2015, 30, 1727-1734.	4.3	27
63	Experimentally Validated Reversible Single-Phase Multiwinding Transformer Model for the Accurate Calculation of Low-Frequency Transients. IEEE Transactions on Power Delivery, 2015, 30, 193-201.	4.3	23
64	Transformer leakage flux models for electromagnetic transients: Critical review and validation of a new model. , 2014, , .		2
65	Ladder-Type Soil Model for Dynamic Thermal Rating of Underground Power Cables. IEEE Power and Energy Technology Systems Journal, 2014, 1, 21-30.	2.8	43
66	Design algorithm of a uniform magnetic field transmitter intended for the wireless charging of electric vehicles. , 2014, , .		3
67	Multiphase resonant inverters for bidirectional wireless power transfer. , 2014, , .		9
68	Edge position detection of on-line vehicles with segmental wireless power supply. , 2014, , .		1
69	Multiphase resonant inverters with common resonant circuit. , 2014, , .		9
70	Improved Computation of Core Inductance for Fast Transient Analysis of Transformers. IEEE Transactions on Power Delivery, 2014, 29, 2034-2036.	4.3	4
71	Accurate Measurement of the Air-Core Inductance of Iron-Core Transformers With a Non-Ideal Low-Power Rectifier. IEEE Transactions on Power Delivery, 2014, 29, 294-296.	4.3	25
72	Leakage Inductance Design of Toroidal Transformers by Sector Winding. IEEE Transactions on Power Electronics, 2014, 29, 473-480.	7.9	54

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73	Transformer Leakage Flux Models for Electromagnetic Transients: Critical Review and Validation of a New Model. IEEE Transactions on Power Delivery, 2014, 29, 2180-2188.	4.3	23
74	Thermal Analysis of Power Cables in Free Air: Evaluation and Improvement of the IEC Standard Ampacity Calculations. IEEE Transactions on Power Delivery, 2014, 29, 2306-2314.	4.3	49
75	Energy and Economic Impacts of the Application of CVR in Heavily Meshed Secondary Distribution Networks. IEEE Transactions on Power Delivery, 2014, 29, 1692-1700.	4.3	19
76	Analysis, Modeling, and Simulation of the Phase-Hop Condition in Transformers: The Largest Inrush Currents. IEEE Transactions on Power Delivery, 2014, 29, 1918-1926.	4.3	11
77	Calculation of cable thermal rating considering non-isothermal earth surface. IET Generation, Transmission and Distribution, 2014, 8, 1354-1361.	2.5	16
78	Experimental Determination of the ZIP Coefficients for Modern Residential, Commercial, and Industrial Loads. IEEE Transactions on Power Delivery, 2014, 29, 1372-1381.	4.3	287
79	Improvement of a Method to Compute the Inductance Matrix of Multilayer Transformer Windings for Very Fast Transients. IEEE Transactions on Power Delivery, 2013, 28, 1245-1246.	4.3	6
80	Field-Validated Load Model for the Analysis of CVR in Distribution Secondary Networks: Energy Conservation. IEEE Transactions on Power Delivery, 2013, 28, 2428-2436.	4.3	116
81	Dual Reversible Transformer Model for the Calculation of Low-Frequency Transients. IEEE Transactions on Power Delivery, 2013, 28, 2509-2517.	4.3	51
82	Validated Transient Heat-Transfer Model for Underground Transformer in Rectangular Vault. IEEE Transactions on Power Delivery, 2013, 28, 1770-1778.	4.3	13
83	Long Duration Overvoltages due to Current Backfeeding in Secondary Networks. IEEE Transactions on Power Delivery, 2013, 28, 2500-2508.	4.3	14
84	A Comparative Study on π and T Equivalent Models for the Analysis of Transformer Ferroresonance. IEEE Transactions on Power Delivery, 2013, 28, 526-528.	4.3	22
85	Duality-Synthesized Circuit for Eddy Current Effects in Transformer Windings. IEEE Transactions on Power Delivery, 2013, 28, 1063-1072.	4.3	18
86	Development of Data Translators for Interfacing Power-Flow Programs With EMTP-Type Programs: Challenges and Lessons Learned. IEEE Transactions on Power Delivery, 2013, 28, 1192-1201.	4.3	11
87	Parametric Study of Losses in Cross-Bonded Cables: Conductors Transposed Versus Conductors Nontransposed. IEEE Transactions on Power Delivery, 2013, 28, 2273-2281.	4.3	8
88	A time sequence load-flow method for steady-state analysis in heavily meshed distribution network with DG. , 2013, , .		3
89	Energy minimization for catenary-free mass transit systems using Particle Swarm Optimization. , 2012, , .		8
90	Equivalent Circuit for the Leakage Inductance of Multiwinding Transformers: Unification of Terminal and Duality Models. IEEE Transactions on Power Delivery, 2012, 27, 353-361.	4.3	38

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91	Closed-Form Analysis of Squirrel-Cage Induction Motors With Anisotropic Modeling of Stator and Rotor. IEEE Transactions on Energy Conversion, 2012, 27, 553-560.	5.2	7
92	AC Power Theory From Poynting Theorem: Identification of the Power Components of Magnetic Saturating and Hysteretic Circuits. IEEE Transactions on Power Delivery, 2012, 27, 1548-1556.	4.3	15
93	Comparing the T and π Equivalent Circuits for the Calculation of Transformer Inrush Currents. IEEE Transactions on Power Delivery, 2012, 27, 2390-2398.	4.3	71
94	Analysis of Voltage Profile Problems Due to the Penetration of Distributed Generation in Low-Voltage Secondary Distribution Networks. IEEE Transactions on Power Delivery, 2012, 27, 2020-2028.	4.3	157
95	Three-Phase Time-Domain Simulation of Very Large Distribution Networks. IEEE Transactions on Power Delivery, 2012, 27, 677-687.	4.3	38
96	Heat-Transfer Model for Toroidal Transformers. IEEE Transactions on Power Delivery, 2012, 27, 813-820.	4.3	34
97	Thermal Analysis of Cables in Unfilled Troughs: Investigation of the IEC Standard and a Methodical Approach for Cable Rating. IEEE Transactions on Power Delivery, 2012, 27, 1423-1431.	4.3	28
98	On the Transient Behavior of Large-Scale Distribution Networks During Automatic Feeder Reconfiguration. IEEE Transactions on Smart Grid, 2012, 3, 887-896.	9.0	50
99	Optimal Distributed Voltage Regulation for Secondary Networks With DGs. IEEE Transactions on Smart Grid, 2012, 3, 959-967.	9.0	130
100	Assessment of errors introduced by common assumptions made in power system studies. , 2011, , .		4
101	Computation of the dielectric stresses produced by PWM type waveforms on medium voltage transformer windings. , 2011, , .		7
102	Accurate and Efficient Computation of the Inductance Matrix of Transformer Windings for the Simulation of Very Fast Transients. IEEE Transactions on Power Delivery, 2011, 26, 1423-1431.	4.3	38
103	Eliminating sub-synchronous oscillations with an induction machine damping unit (IMDU). , 2011, , .		0
104	Tools for Analysis and Design of Distributed Resources—Part II: Tools for Planning, Analysis and Design of Distribution Networks With Distributed Resources. IEEE Transactions on Power Delivery, 2011, 26, 1653-1662.	4.3	29
105	Mitigation of Inrush Currents in Network Transformers by Reducing the Residual Flux With an Ultra-Low-Frequency Power Source. IEEE Transactions on Power Delivery, 2011, 26, 1563-1570.	4.3	47
106	Design Formulas for the Leakage Inductance of Toroidal Distribution Transformers. IEEE Transactions on Power Delivery, 2011, 26, 2197-2204.	4.3	39
107	Impulse-Response Analysis of Toroidal Core Distribution Transformers for Dielectric Design. IEEE Transactions on Power Delivery, 2011, 26, 1231-1238.	4.3	29
108	Eliminating Subsynchronous Oscillations With an Induction Machine Damping Unit (IMDU). IEEE Transactions on Power Systems, 2011, 26, 225-232.	6.5	14

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109	Effects of Conductor Counter-Transposition on the Positive-Sequence Impedance and Losses of Cross-Bonded Cables. IEEE Transactions on Power Delivery, 2011, 26, 2060-2063.	4.3	14
110	Selection of copper against aluminium windings for distribution transformers. IET Electric Power Applications, 2010, 4, 474.	1.8	47
111	A Robust Multiphase Power Flow for General Distribution Networks. IEEE Transactions on Power Systems, 2010, 25, 760-768.	6.5	52
112	Separation of core losses in distribution transformers using experimental methods. Canadian Journal of Electrical and Computer Engineering, 2010, 35, 33-39.	2.0	10
113	AC Power Theory From Poynting Theorem: Accurate Identification of Instantaneous Power Components in Nonlinear-Switched Circuits. IEEE Transactions on Power Delivery, 2010, 25, 2104-2112.	4.3	29
114	Simulation tools for analysis of distribution systems with distributed resources. Present and future trends. , 2010, , .		5
115	Dual Three-Winding Transformer Equivalent Circuit Matching Leakage Measurements. IEEE Transactions on Power Delivery, 2009, 24, 160-168.	4.3	56
116	Discussion of "Transformer Modeling for Low- and Mid-Frequency Transients - A Review". IEEE Transactions on Power Delivery, 2008, 23, 1696-1697.	4.3	5
117	Discussion of "Instantaneous Reactive Power p-q Theory and Power Properties of Three-Phase Systems". IEEE Transactions on Power Delivery, 2008, 23, 1693-1694.	4.3	16
118	Effects of Backfilling on Cable Ampacity Analyzed With the Finite Element Method. IEEE Transactions on Power Delivery, 2008, 23, 537-543.	4.3	103
119	Unbalanced Multiphase Load-Flow Using a Positive-Sequence Load-Flow Program. IEEE Transactions on Power Systems, 2008, 23, 469-476.	6.5	41
120	Major factors affecting cable ampacity. , 2006, , .		25
121	A practical approach to power factor definitions: transmission losses, reactive power compensation, and machine utilization. , 2006, , .		12
122	Discussion of "Generalized Theory of Instantaneous Reactive Quantity for Multiphase Power System". IEEE Transactions on Power Delivery, 2006, 21, 540-541.	4.3	11
123	2D finite-element determination of tank wall losses in pad-mounted transformers. Electric Power Systems Research, 2004, 71, 179-185.	3.6	21
124	Improved Insert Geometry for Reducing Tank-Wall Losses in Pad-Mounted Transformers. IEEE Transactions on Power Delivery, 2004, 19, 1120-1126.	4.3	21
125	Discussion of "A Wide-Band Lumped Circuit Model of Eddy Current Losses in a Coil With a Coaxial Insulation System and a Stranded Conductor". IEEE Transactions on Power Delivery, 2004, 19, 902-902.	4.3	2
126	Discussion of "A new preconditioned conjugate gradient power flow". IEEE Transactions on Power Systems, 2003, 18, 1601.	6.5	2

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127	Discussion of "Accurate modeling of core-type distribution transformers for electromagnetic transient studies". IEEE Transactions on Power Delivery, 2003, 18, 640.	4.3	1
128	Discussion of "An evaluation of some alternative methods of power resolution in a large industrial plant". IEEE Transactions on Power Delivery, 2003, 18, 658-659.	4.3	3
129	Discussion of "proposed standards for frequency conversion factors of transformer performance parameters". IEEE Transactions on Power Delivery, 2003, 18, 1599-1600.	4.3	0
130	Iterative solvers in the Newton power flow problem: preconditioners, inexact solutions, and partial Jacobian updates. IET Generation, Transmission and Distribution, 2002, 149, 479.	1.1	27
131	Quasi-Newton power flow using partial Jacobian updates. IEEE Transactions on Power Systems, 2001, 16, 332-339.	6.5	34
132	Physical time domain representation of powers in linear and nonlinear electrical circuits. IEEE Transactions on Power Delivery, 1999, 14, 1240-1249.	4.3	16
133	A simple representation of dynamic hysteresis losses in power transformers. IEEE Transactions on Power Delivery, 1995, 10, 315-321.	4.3	64
134	Detailed modeling of eddy current effects for transformer transients. IEEE Transactions on Power Delivery, 1994, 9, 1143-1150.	4.3	40
135	Complete transformer model for electromagnetic transients. IEEE Transactions on Power Delivery, 1994, 9, 231-239.	4.3	221
136	Time domain modeling of eddy current effects for transformer transients. IEEE Transactions on Power Delivery, 1993, 8, 271-280.	4.3	113
137	Computation of electromagnetic transients using dual or multiple time steps. IEEE Transactions on Power Systems, 1993, 8, 1274-1281.	6.5	49
138	Reduced order model for transformer transients. IEEE Transactions on Power Delivery, 1992, 7, 361-369.	4.3	79
139	Efficient calculation of elementary parameters of transformers. IEEE Transactions on Power Delivery, 1992, 7, 376-383.	4.3	76
140	Damping power system oscillations by unidirectional control of alternative power generation plants. , 0, , .		11
141	Improved insert geometry for reducing tank wall. , 0, , .		0