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5DV.3.25	Determination of Degradation Rates for PV Modules and PV Generators Applying Various Methods <i>D. Stellbogen, P. Lechner</i>	1805
5DV.3.28	Soiling Effect on Photovoltaic Modules' Performance in Arid Environment <i>F.G. Alzubi, A.T. Alasfour</i>	1809
5DV.3.31	Advanced Method for Determining Soiling Losses on PV Modules in Desert Climate <i>D. Daßler, S. Malik, A. Pandiyan, A. Benazzouz, B. Ikken, M. Ebert</i>	1813
5DV.3.32	Advanced Coating for Solar Cell Module Protection <i>G.K. Zhavnerko, V.Y. Shiripov, V.A. Savich, O.V. Sergeev</i>	1819
5DV.3.38	Investigating Hot Spots Performance of PV Module Using Halved Multi-Crystalline Silicon Cells <i>J. Jiang, J. Ni, D. Rong, Y. Li, Y. He, C. Ma, J. Shi, F. Li, D. Liu, D. Song</i>	1822
5DV.3.39	Energy Performance Improvement and Thermal Operation of Crystalline Silicon Photovoltaic Modules Designed with Innovative Packaging Components <i>G. Makrides, M. Theristis, J. Bratcher, J. Pratt, G.E. Georghiou</i>	1825
5DV.3.40	New Method of Silicon Photovoltaic Panel Fault Detection Using Impedance Spectroscopy <i>J.K. Symonowicz, N. Riedel, S. Thorsteinsson, D. Sera, P.B. Poulsen</i>	1831
5DV.3.44	Long-Term Performance of PV Micro-Inverters <i>S. Krauter, J. Bendfeld</i>	1836
5DV.3.45	Development of a Controller-Hardware-in-the-Loop (CHIL) Toolbox Applied for Pre-Certification Services for Grid-Connected PV Inverters According to the State-of-the-Art BDEW RL Guideline and FGW TR3 Standard <i>G. Lauss, D. Majstorovic, F. Leimgruber, O. Gagriva, R. Bründlinger, I. Morar, Z. Miletic, N. Fischer Celanovic</i>	1841

5DV.3.46	DLMS Smart Meter Reading Application for PV-Micro-Grids <i>M. Ait Benali, A. Outzourhit</i>	1847
5DV.3.50	Introduction of an Advanced Method for Testing of Battery Charge Controllers for Off-Grid PV Systems <i>A. Khatibi, J. Bendfeld, W. Bermpohl, S. Krauter</i>	1851
5DV.3.51	Testing and Analysis of Battery Charge Controllers for Off-Grid PV Systems <i>A. Khatibi, J. Bendfeld, W. Bermpohl, S. Krauter</i>	1856
5DV.3.54	DC-Coupled Buck-Boost Battery Charge Controller for Utility Scale Photovoltaic Plants <i>P. Burski, A. Neumann, R. Merz</i>	1863
5DV.3.57	Approach to Determine the Impact of Cosmic Rays on PV Systems <i>M. Halwachs, M. Schwark, K.A. Berger, R. Ebner</i>	1868
5DV.3.66	Eco-Solar Factory: Establishment of Pan Industrial Material Re-Use Opportunities <i>K. Wambach, I. Fechner, M.P. Bellmann, G.S. Park, J. Denafas, F. Buchholz, F. Madon, G. Noja, B. Ehlen, R. Roligheten, P. Romero, A. Bollar</i>	1872
5DV.3.68	Sustainable Recycling of Wafer-Silicon Solar Modules <i>M. Tao, W.-H. Huang, J. Schichtel</i>	1878
5DV.3.71	Remelting and Purification of Si-Kerf for PV-Wafers <i>M. Syvertsen, T. Halvorsen, K. Mork, A. Nordmark, T. Kaden, A. Ulyashin</i>	1882
5DV.3.81	Physical Delamination of PV-Modules in Less than One Second <i>H. Gross, M.R. Heuschkel</i>	1886

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6DP.2.3	PV Production Forecasting Model Based on Artificial Neural Networks (ANN) <i>S. Theοcharides, G. Makrides, V. Venizelou, P. Kaimakis, A. Kyprianou, G.E. Georghiou</i>	1890
6DP.2.4	Predictive Maintenance in Photovoltaic Plants with a Big Data Approach <i>A. Betti, M.L. Lo Trovato, F.S. Leonardi, G. Leotta, F. Ruffini, C. Lanzetta</i>	1895

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6BO.7.2	Statistical Analysis of the Performance Loss Rate of PV Plants Distributed in a Region: A Real-Case Study in South Tyrol <i>G. Belluardo, M. Pierro, P. Ingenvoven, C. Cornaro, D. Moser</i>	1904
6BO.7.3	A 368-kWp Grid-Connected PV System: Known and Hidden Losses <i>G.H. Yordanov, F. Smolders, A. Olaerts, G. Verbeek, K. Baert, J. Driesen</i>	1909
6BO.7.4	Comparison of Soiling Sensitivity of the Performance of Monocrystalline and Amorphous Photovoltaic Systems in Benguerir, Morocco <i>H. Zitouni, A. Alami Merrouni, M. Regragui, B. Ikken, A. Bennouna</i>	1915
6BO.7.6	Machine Learning PV System Performance Analyser <i>S. Rodrigues, H. Geirinhas Ramos, F. Morgado-Dias</i>	1919

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6BO.8.1	Effect of PID on Energy Conversion Efficiency of Crystalline Silicon Photovoltaic Power Plant <i>H. Yang, H. Wang, X. Jiang, C. Chen, J. Chang, J. Zhang, J. Huang</i>	1927
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6BO.8.2	Quantitative Study of Potential Induced Degradation of a Roof-Top PV-Installation with IR-Imaging <i>C. Buerhop-Lutz, T. Pickel, F.W. Fecher, C. Zetzmann, J. Hauch, C. Camus, C.J. Brabec</i>	1931
6BO.8.3	Scientific Investigation of a PV Generator After Hail <i>W. Mühlleisen, C. Hirschl, G.C. Eder, Y. Voronko, M. Spielberger, H. Sonnleitner</i>	1937
6BO.8.4	The Development of Cell Thickness Reduction of Crystalline Solar Cells in PV Modules and Its Impacts on Large PV Power Plants <i>E. Cunow</i>	1940
6BO.8.6	Implementation of an Accurate Measurement Procedure to Determine Maximum Power of Modules at Standard Test Conditions in the Field through Correlation with Measurements Carried out in Laboratory <i>L. Pérez, J.A. Florez, M. Martínez, E. Alvarez, F. Domínguez, G. Castillo, A. Inza, H. Silva, R. Gómez, M. Fernández, V. Parra, A. Velasco</i>	1945

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6CO.13.1	Data Analysis for Effective Monitoring of Partially Shaded Photovoltaic Systems <i>O. Tsafarakis, K. Sinapis, W.G.J.H.M. van Sark</i>	1950
6CO.13.2	Effects of Combining Shading Analysis and the Unique I-V Characteristics of the PV Module <i>R. Herrero Alonso, R. Silva Simplicio, C. Biasi de Moura, A. Alves Miyazaki, M. Knörich Zuffo</i>	1954
6CO.13.3	Outdoor Field Performance from Bifacial Photovoltaic Modules and Systems <i>J.S. Stein, D.S. Riley, M. Lave, C. Deline, F. Toor, C.W. Hansen</i>	1961
6CO.13.4	Performance Estimation of Bifacial PV Modules: A Simulation Approach through Both Physical and Semi-Empirical Math Models and Its Validation Using Real Bifacial Plant Data <i>M. Catena, I. Cascone, M. Carbone</i>	1968
6CO.13.6	Simulation Resolution of PV System Partial Shading Studies <i>K. Lappalainen, S. Valkealahti</i>	1973

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6CO.14.1	La Silla PV Plant as a Utility-Scale Side-by-Side Test for Innovative Modules Technologies <i>A. Di Stefano, G. Leotta, F. Bizzarri</i>	1978
6CO.14.2	Validation Study of Solar PV Energy Simulation Tools and Methodologies <i>M. Aspinall, M. Cahill, E. Noirault</i>	1983
6CO.14.3	Managing Technical Risks in PV Investments – How to Quantify the Impact of Risk Mitigation Measures for Different PV Project Phases? <i>U. Jahn, M. Herz, D. Moser, G. Belluardo, M. Richter</i>	1986
6CO.14.4	Review of Different Software Solutions for the Holistic Simulation of Distributed Hybrid Energy Systems for the Commercial Energy Supply <i>L. Schmeling, P. Klement, T. Erfurth, J. Kästner, B. Hanke, K. von Maydell, C. Agert</i>	1994
6CO.14.6	Laboratory of Hybrid Systems and Mini-Grids <i>C.F. de Oliveira Barbosa, J.A. Leal Correa, J.P. Alves Veríssimo, I.H. Lobato Lemos, M.A. Barros Galhardo, E.J. da Silva Pereira, J. Tavares Pinho, A.R. Arrifano Manito</i>	1999

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6CO.15.1	Field Testing of Portable LED Flasher for Nominal Power Measurements of PV-Modules On-Site <i>R. Knecht, F. Baumgartner, F. Carigiet, C. Frei, F. Beglinger, W. Zaaiman, D. Pavanello, M. Field, R. Galleano, T. Sample</i>	2007
6CO.15.2	Dynamic IV Analysis System for Diagnosis of PV-Module Strings in a Large Scale PV-Power Plant <i>M. Vervaart, S. Lespinats, F. Al Shakarchi</i>	2013
6CO.15.3	Luminescence Imaging Strategies for Drone-Based PV Array Inspection <i>G.A. dos Reis Benatto, N. Riedel, C. Mantel, S. Thorsteinsson, P.B. Poulsen, M. Chi, A. Thorseth, O. Bjørlin Jensen, C. Dam-Hansen, S. Forchhammer, K.H.B. Frederiksen, J. Vedde, M. Petersen, H. Voss, M. Messerschmidt, H. Parikh, S. Spataru, D. Sera</i>	2016

6CO.15.4	Implementation of a Friendly Daylight Electroluminescence System for the Inspection of Solar PV Panels <i>O. Martínez, M. Guada, A. Moretón, S. Rodríguez-Conde, M.A. González, J. Jiménez, J. Pérez, M. Martínez, J.A. Florez, H. Silva, A. Velasco, L. Pérez, V. Parra</i>	2021
6CO.15.5	Digital Plant Lifecycle Record – A New Standard for Efficient PV O&M <i>J. Schmidt, C. Bertsch-Engel</i>	2026
6CO.15.6	NEC2017 Rapid Shutdown: Useful Safety Feature or Unnecessary Nuisance? <i>U. Muntwyler, D. Gfeller, J. Wälten, C. Renken, M. Rutschi</i>	2031

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6CO.16.2	Synthesizing Residential Load Profiles Using Behavior Simulation <i>N. Pflugradt, U. Muntwyler</i>	2042
6CO.16.3	Evaluation of the Effect of PV Plant Size on the Efficiency of Household Li-Ion Battery Storage Systems <i>N. Munzke, J. Barry, B. Schwarz, F. Büchle</i>	2047
6CO.16.4	Grid-Relieving Effects of PV Battery Energy Storage Systems with Optimized Operation Strategies <i>S. Zurmühlen, G. Angenendt, M. Heinrich, H. Axelsen, D.U. Sauer</i>	2052
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6CO.16.6	Impact of Self-Consumption on Integration of Photovoltaics in Martinique: Simulation Results from the Insolations Project <i>F. Bourry, F. Al Shakarchi, N. Martin, S. Darivon, L. Bellemare</i>	2067

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6DO.6.5	Validation of an All-Sky Imager Based Nowcasting System for Industrial PV Plants <i>P. Kuhn, B. Nouri, S. Wilbert, C. Prahl, N. Kozonek, T. Schmidt, Z. Yasser, L. Ramirez, L. Zarzalejo, A. Meyer, L. Vuilleumier, D. Heinemann, P. Blanc, R. Pitz-Paal</i>	2082

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6DO.10.2	Building-Integrated Photovoltaics (BIPV) over the Time – Illustrated by Means of Examples from Competitions <i>G. Becker, F. Flade, R. Krippner, B. Schiebelsberger, W. Weber</i>	2099
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6DO.10.5	An Architectural Approach for Improving Aesthetics of PV <i>L.H. Slooff, J.A.M. van Roosmalen, L.A.G. Okel, T. de Vries, T. Minderhoud, G. Gijzen, T. Sepers, A. Versluis, F. Frumau, M. Rietbergen, L. Polinder, E.M.B. Heller, F. de Vries</i>	2110

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