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5BV.1.2	Influence of Backsheet Type on Formation of Acetic Acid in PV Modules <i>A. Mihaljevic, G. Oreski, G. Pinter</i>	1812
5BV.1.5	A New Approach to Determine the Crosslinking in Polyethylene-Vinyl Acetate via Raman Spectroscopy <i>S. Jäger, S. Wittmann, M. Heindl, A. Linsenmeyer, T. Kunz, C. Camus, J. Hauch, C.J. Brabec</i>	1815
5BV.1.6	DSC Methods for a Fast Determination of the Crosslinking Degree of EVA <i>S. Ogier, D. Chapron, I. Royaud, M. Ponçot, M. Vite, M. Hidalgo</i>	1819
5BV.1.8	Effect of Different UV Cut off Wavelength of EVA Encapsulant on Cr-Si PV Module's Performance & Reliability <i>A.K. Singh, R. Singh</i>	1823
5BV.1.12	Module Inspection Using Line Scanning Photoluminescence Imaging <i>I. Zafirovska, M.K. Juhl, J.W. Weber, O. Kunz, T. Trupke</i>	1826
5BV.1.13	Optical Simulation for Ribbon with Optical Structure in c-Si PV Module <i>C.-W. Yang, C.-M. Yang, M.-Y. Chen, C.-L. Cheng</i>	1830
5BV.1.14	Influence of Photovoltaic Module Mounting Systems on the Thermo-Mechanical Stresses in Solar Cells by FEM Modelling <i>A.J. Beinert, M. Ebert, U. Eitner, J. Aktaa</i>	1833
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5BV.1.16	Impedance Spectroscopy and Its Possible Use for Defects Detection <i>L. Cerná, T. Finsterle, P. Hrzina, V. Benda</i>	1842
5BV.1.17	Quantitative Outdoor Imaging: Analysis of Solar Modules in Daylight <i>Y. Augarten, A. Wrigley, A. Gerber, B. Pieters, U. Rau</i>	1846
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5BV.1.19	Light Induced Degradation of P-Mono PERC from Ingot, Cell, Module to System <i>M. Chang, H. Chen, C.H. Hsueh, C. Chen</i>	1854
5BV.1.21	Measuring Anti-Reflection Coatings on Patterned Glass <i>B. Brophy, Z.R. Abrams, P. Gonsalves</i>	1858
5BV.1.22	Measurement Station to Evaluate Anti-Soiling Properties of PV Module Coatings <i>M. Gostein, W. Stueve, B. Brophy, K. Jung, A. Martinez-Morales, S. Zhang, Y. Jin, J. Xu</i>	1865
5BV.1.23	Guidelines for the Development of Abrasion-Resistant AR Coatings: Input from Modelling and Experimental Work <i>R. Cauchois, M. Meuwissen, C. Shen, H. Keul, P. Steeman, D. Reardon</i>	1868
5BV.1.24	Effect of Change in Spectral Transmittance due to Dust on CdTe and Mono Crystalline Silicon Modules <i>S. Rai, B. Bora, O.S. Sastry, R. Singh, M. Bangar, R. Dahiya, G. Kumar Jha, T.R. Khadka</i>	1871
5BV.1.25	Improved 1500V PID Resistance: Encapsulants, Cover Glass and Ion Implanted Cells <i>B. Braisaz, B. Commault, N. Le Quang, E. Gerritsen, M. Joanny, D. Binesti, G. Goar, K. Radouane</i>	1874
5BV.1.26	Durability of Bifacial Solar Modules under Potential Induced Degradation: Role of the Encapsulation Materials <i>M. Barbato, M. Meneghini, A. Cester, A. Barbato, G. Tavernaro, M. Rossetto, G. Meneghesso</i>	1879

5BV.1.27	Lifetime Warranty Test Method Considering Potential Induced Degradation Recovery Behavior <i>K. Kang, B. Kim, S. Park, S. Chang</i>	1884
5BV.1.28	Does the New IEC 62804-2 PID Test Procedure Cover a Service Life of CIGS PV Modules? <i>P. Lechner, J. Schnepf, D. Geyer, R. Schäffler, R. Wächter, T. Repmann</i>	1888
5BV.1.29	An Investigation of Factors Contributing to Potential-Induced Degradation (PID) and Its Countermeasures <i>X.-S. Wang, S. Wan, A. Fu, G. Xing</i>	1892
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5BV.1.32	Yield Losses of PID-Affected PV Systems - Simulation of Yield Losses Beyond Power Loss <i>J. Arp, B. Jaeckel, J. Behrschmidt</i>	1905
5BV.1.33	PID and UVID Resistant n-Type Solar Cells and Modules <i>M.K. Stodolny, G.J.M. Janssen, B.B. Van Aken, C.J.J. Tool, M.W.P.E. Lamers, I.G. Romijn, P.R. Venema, M.R. Renes, O. Siareyeva, E.H.A. Granneman, J. Wang, J. Ma, J. Cui, F. Lang, Z. Hu, J. Löffler</i>	1908
5BV.1.35	Recovery Method for Solar Modules Affected by Potential Induced Degradation in Utility-Scale Solar Plants <i>Y. Hu, P. Ni, Q. Wei, C. Li, Z. Mou, L. Hu, Y. Yan, C. Liu, J. Lu, C. Wu</i>	1912
5BV.1.36	Performance Evaluation of PV Modules After Accelerated Testing Followed by Four Years of Field Exposure in Hot-Humid Climate of Florida <i>V. Gade, N. Shiradkar, S. Vaishnav, J. Opalewski</i>	1915
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5BV.2.6	Development of a Matlab Based Sizing and Simulation Tool for Solar Photovoltaic Pumping System (PVPS) <i>R. Hasan, M. Zehner, O. Mayer, R. Gottschalg</i>	1920
5BV.2.7	Thermovision Testing of the Solar Power Plant Lifetime in the Czech Republic <i>K. Jandová, J. Vanek</i>	1924
5BV.2.8	Simple and Accurate Monitoring of Expected PV Power Generation by Using Mini-PV Module <i>K. Saito, J. Yamazaki, D. Yoshino, N. Higuchi, M. Kondo</i>	1927
5BV.2.11	Automatic Detection of Defective Solar Modules by Thermovision <i>J. Vanek, I. Repko, J. Klima, T. Peroutka</i>	1931
5BV.2.16	Evaluation of a Detailed Electro-Thermal PV Model on a 62.5 kWp Installation <i>D. Anagnostos, K.M. Paasch, H. Goverde, F. Catthoor, D. Soudris</i>	1936
5BV.2.18	Skelion: the 3D Simulation Tool for PV Systems <i>J. Pons Alemán, B.M. Soucase, I. Guaita</i>	1939
5BV.2.19	Automatic Computation of Shading Mask on a PV Field Based on Production Data <i>J. Dupas, M. Joos, S. Fraisse, B. Gaiddon</i>	1942
5BV.2.23	Calculation- and Visualization-Tool (CVT) for Partial Shading of Photovoltaic Systems <i>F. Kuonen, D. Gfeller, T. Schott, E. Schüpbach, H. Heck, U. Muntwyler</i>	1945
5BV.2.25	Three Year Field Performance of Anti-Soiling Coatings at Multiple Locations <i>B. Brophy, K. Schexnaydre</i>	1948
5BV.2.28	Evaluation of Remote Diagnoses Performance by Using Operating Performance Index at Different Measurement Intervals for Residential PV Systems <i>M. Ajisaka, Y. Ueda, R. Yamada, T. Yokota</i>	1952
5BV.2.33	Comparison of Various Models for the Estimation of the Performance Loss Rate of Seven PV Technologies over Five Years in Alpine Climate <i>P. Ingenhoven, G. Belluardo, D. Moser</i>	1956

5BV.2.34	Drone-based Assessment of Cleaning Effects on PV Installations <i>M. Lanz, E. Schüpbach, U. Muntwyl</i>	1960
5BV.2.35	Floating Photovoltaic Installations in the Maltese Sea Waters <i>M. Grech, L. Mule'Stagno, M. Aquilina, M. Cadamuro, U. Witzke</i>	1964
5BV.2.36	Development, Application and Validation of a Compact, Portable Solar Cell Characterization Device Utilized for BIPV Analysis <i>D. Holzmann, C. Mayer, L. Neumaier, C. Hirschl</i>	1969
5BV.2.38	Advanced Performance Monitoring System for Improved Reliability and Optimized Levelized Cost of Electricity <i>G. Makrides, A. Phinikarides, J. Sutterlueti, S. Ransome, G.E. Georghiou</i>	1973
5BV.2.39	A Use of Artificial Intelligence for Improving PV Array Performance (Empirical Approach) <i>A. Macq, L. Mercier des Rochettes, L. Martin-Carron, N. Cristi, M.-P. Gleizes, C. Bernon, P. Glize</i>	1978
5BV.2.40	Floating PV Power System Evaluation over Five Years (2011 ~ 2016) <i>C.-S. Won, W. Lawrence, D. Kim, B. Kang, K. Kim, G. Lee</i>	1982
5BV.2.43	Modelling and Energy Management Optimisation of Battery Energy Storage System (BESS) Based Photovoltaic Charging Station (PV-CS) for University Campus <i>A. Esfandyari, A. Swierc, B. Norton, M. Conlon, S.J. McCormack</i>	1985
5BV.2.44	Outdoor Performance and Modelling of Innovative Crystalline Silicon Photovoltaic Modules under Hot Climate Conditions <i>G. Makrides, A. Phinikarides, E. Herzog, M.B. Strobel, G.E. Georghiou</i>	1991
5BV.2.46	Evaluation of Soiling during a 2-Months Drought and Construction Works Near a PV Test Facility in North-East of Italy <i>G. Belluardo, P. Inghoven, D. Moser</i>	1997
5BV.2.47	Global Method for Calculating Location Specific MPP Tracking Losses Using Available Weather Statistics <i>M. Egler, S. Gordon, P. Yim</i>	2001
5BV.2.48	Cell to Module Losses of an MWT Module <i>L.H. Slooff, E.E. Bende, M.J. Jansen, L.A.G. Okel, F.J.K. Danzl, P. Manshanden</i>	2007
5BV.2.49	Annual Yield Comparison of Module Level Power Electronics and String Level PV Systems with Standard and Advanced Module Design <i>K. Sinapis, T.T.H. Rooijackers, C. Tzikas, G.B.M.A. Litjens, M.N. van den Donker, W. Folkerts, W.G.J.H.M. van Sark</i>	2011
5BV.2.50	IR-Imaging a Tracked PV-Plant Using an Unmanned Aerial Vehicle <i>C. Buerhop-Lutz, H. Scheuerpflug, T. Pickel, C. Camus, J. Hauch, C.J. Brabec</i>	2016
5BV.2.51	aIR-PV-Check of Thin-Film PV-Plants – Detection of PID and Other Defects in CIGS Modules <i>C. Buerhop-Lutz, T. Pickel, H. Scheuerpflug, C. Dürschner, C. Camus, J. Hauch, C.J. Brabec</i>	2021
5BV.2.53	IR-Images of Defective PV-Modules Influenced by Short-Time Changes of the Electric System <i>C. Buerhop-Lutz, J. Dettelbacher, T. Pickel, C. Camus, J. Hauch, C.J. Brabec</i>	2027
5BV.2.55	Selection Criteria of PV Technology Based on Location <i>G.K. Kumar Jha, R. Kumar, P.K. Dash, R. Siddiqui, G. Gowri, M. Morampudi, S. Lata, S. Raghava, P. Rajput</i>	2030
5BV.2.58	Forecasting Degradation Rates of Different Photovoltaic Systems Using Robust Principal Component Analysis and ARIMA <i>A. Kyprianou, A. Phinikarides, G. Makrides, G.E. Georghiou</i>	2033
5BV.2.60	Performance of a Module and Defect Detection Algorithm for Aerial Infrared Images as a Function of the Flying Altitude <i>M. Dalsass, S. Deitsch, P. Luchscheider, F. Gallwitz, C.J. Brabec</i>	2036
5BV.2.62	A Simulation Based Optical and Electrical Approach to Estimate Energy Yield of Various Designs of Curved Modules <i>H. Hanifi, C. Pfau, J. Schneider, J. Bagdahn</i>	2041
5BV.2.63	A Software Suite for Simulation and Design of PV Plants <i>I. Lokhat, S. Boussac, B. Lelong</i>	2046

5BV.2.64	Spectral Studies Investigating the Influence of Dust on Solar Transmittance <i>K.K. Khanum, M. Mani, P.C. Ramamurthy</i>	2049
5BV.2.66	Analysis of Different Shading Pattern on the Total Cross Tide Connected Configuration of Solar PV Power Plant <i>D. Singh, B. Bora, Y.K. Singh, R. Singh, S. Rai, B. Pradhan, M. Bangar, R. Dahiya, A. Sharma, K. Saikia, O.S. Sastry</i>	2052
5BV.2.68	Design and Analysis of 10MWp Grid Connected PV System Installed West Kuwait <i>H. Abdullah, R. Kamel, M. El-Sayed</i>	2055
5BV.2.70	Performance Analysis of Different Thin Film Module Technology in Indian Climatic Condition <i>Y.K. Singh, B. Bora, R. Singh, S. Chakravarty, O.S. Sastry, R. Singh, S. Rai</i>	2064
5BV.2.72	Performance Comparison of PV Module Based on Temperature Coefficient in Indoor and Outdoor Conditions as per IEC 61853-1 <i>M. Morampudi, B. Bora, G. Kumar Jha, R. Kumar, R. Siddiqui, S. Lata, G. Gowri, B. Dubey, P. Rajput, S. Raghava, M. Singh, J. Vyas</i>	2067
5BV.2.73	Control Strategy of a Photovoltaic Module Emulator Based on Hill-Climbing and Single-Diode Model <i>J.D. Bastidas Rodriguez, B. Ospina, J.S. Parra, E. Franco-Mejia</i>	2070
5BV.2.74	Optimum Sizing and Exploitation of Results of Ndem's Solar Power Plant Production <i>S.N. Leye, S. Mbodji, F.S. Dia, A. Diao, G. Sissoko</i>	2077
5BV.2.75	LowCost-Outdoor-Electroluminescence: Significant Improvements of the Method <i>K. Mertens, A. Arnds, G. Behrens, A. Domnik</i>	2081
5BV.2.76	Innovative Semi-Automatic Cleaning Technique for High Concentration Photovoltaic Panels <i>D. Dahlioui, Y. Elfatimy, A. Benazzouz, A. Barhdadi, G. Borelli, M. Carpanelli, D. Verdilio</i>	2084
5BV.2.78	PV Module Ageing in Southern Europe – Hot Spots and Impact on Yield <i>M. Grottko, O. Beck, F. Espín</i>	2089
5BV.2.79	Comperative Performance Investigation of Mono, Poly-Crystalline and Amorphous Silicon Photovoltaic Modules Under Northern Morocco Climate Conditions <i>K. Attari, A. El Yaakoubi, Z. Leemrani, A. Asselman</i>	2093
5BV.2.81	Investigation and Diagnostic Tool Comparison: Infrared Thermography vs Electroluminescence <i>D. Bertani, C. Liciotti, S. Guastella, C. Camilloni</i>	2098
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