

Maria Pilar Utrillas

List of Publications by Year in descending order

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109
papers

1,851
citations

236925

25
h-index

361022

35
g-index

110
all docs

110
docs citations

110
times ranked

1582
citing authors

#	ARTICLE	IF	CITATIONS
1	Columnar aerosol properties in Valencia (Spain) by ground-based Sun photometry. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	67
2	The parameterisation of the atmospheric aerosol optical depth using the Å...ngstrÅ¶m power law. <i>Solar Energy</i> , 1998, 63, 303-311.	6.1	60
3	Determination and analysis of in situ spectral aerosol optical properties by a multi-instrumental approach. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 2373-2387.	3.1	59
4	The optimisation of the angle of inclination of a solar collector to maximise the incident solar radiation. <i>Renewable Energy</i> , 1999, 17, 291-309.	8.9	56
5	Comparison of AERONET and SKYRAD4.2 inversion products retrieved from a Cimel CE318 sunphotometer. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 569-579.	3.1	53
6	Column-integrated aerosol optical properties from ground-based spectroradiometer measurements at Barrax (Spain) during the Digital Airborne Imaging Spectrometer Experiment (DAISEX) campaigns. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	51
7	Ratio of UV to global broad band irradiation in Valencia, Spain. <i>International Journal of Climatology</i> , 1999, 19, 903-911.	3.5	50
8	Intercomparison of spectroradiometers and Sun photometers for the determination of the aerosol optical depth during the VELETA-2002 field campaign. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	47
9	Extreme, wintertime Saharan dust intrusion in the Iberian Peninsula: Lidar monitoring and evaluation of dust forecast models during the February 2017 event. <i>Atmospheric Research</i> , 2019, 228, 223-241.	4.1	44
10	Performance evaluation of several versions of the Perez tilted diffuse irradiance model. <i>Solar Energy</i> , 1994, 53, 155-162.	6.1	40
11	A comparative study of SPCTRAL2 and SMARTS2 parameterised models based on spectral irradiance measurements at Valencia, Spain. <i>Solar Energy</i> , 1998, 63, 161-171.	6.1	40
12	Evaluation of models for estimating solar irradiation on vertical surfaces at Valencia, Spain. <i>Solar Energy</i> , 1991, 47, 223-229.	6.1	39
13	UV Index Experimental Values During the Years 2000 and 2001 from the Spanish Broadband UV-B Radiometric NetworkÅ¶. <i>Photochemistry and Photobiology</i> , 2002, 76, 181.	2.5	39
14	Comparison of global ultraviolet (290Å¶385 nm) and global irradiation measured during the warm season in valencia, spain. <i>International Journal of Climatology</i> , 1994, 14, 93-102.	3.5	38
15	Values of broad band turbidity coefficients in a mediterranean coastal site. <i>Solar Energy</i> , 1999, 66, 11-20.	6.1	36
16	Evaluation of the new ESR network software for the retrieval of direct sun products from CIMEL CE318 and PREDE POM01 sun-sky radiometers. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 11619-11630.	4.9	35
17	Sources of discrepancy between aerosol optical depth obtained from AERONET and in-situ aircraft profiles. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 2987-3003.	4.9	34
18	Comparison of aerosol optical thickness retrieval from spectroradiometer measurements and from two radiative transfer models. <i>Solar Energy</i> , 2000, 68, 197-205.	6.1	33

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19	Analysis of the aerosol radiative forcing over a Mediterranean urban coastal site. Atmospheric Research, 2014, 137, 195-204.	4.1	33
20	Determination of the atmospheric-water-vapor content in the 940-nm absorption band by use of moderate spectral-resolution measurements of direct solar irradiance. Applied Optics, 1998, 37, 4678.	2.1	32
21	In-situ integrating nephelometer measurements of the scattering properties of atmospheric aerosols at an urban coastal site in western Mediterranean. Atmospheric Environment, 2012, 47, 43-50.	4.1	32
22	Design of a sun tracker for the automatic measurement of spectral irradiance and construction of an irradiance database in the 330-1100nm range. Renewable Energy, 2007, 32, 2053-2068.	8.9	31
23	MEASUREMENT AND ANALYSIS OF ULTRAVIOLET SOLAR IRRADIATION IN VALENCIA, SPAIN. International Journal of Climatology, 1996, 16, 947-955.	3.5	28
24	Influence of air mass history on the columnar aerosol properties at Valencia, Spain. Journal of Geophysical Research, 2007, 112, .	3.3	28
25	Diffuse UV erythema radiation experimental values. Journal of Geophysical Research, 2007, 112, .	3.3	27
26	Aerosol optical characteristics from a summer campaign in an urban coastal Mediterranean area. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 1573-1585.	6.3	26
27	Altitude effect in UV radiation during the Evaluation of the Effects of Elevation and Aerosols on the Ultraviolet Radiation 2002 (VELETA-2002) field campaign. Journal of Geophysical Research, 2008, 113, .	3.3	26
28	Ultraviolet Radiation Protection by a Beach Umbrella. Photochemistry and Photobiology, 2010, 86, 449-456.	2.5	25
29	Study of erythema, UV (A + B) and global solar radiation in Valencia (Spain). International Journal of Climatology, 2008, 28, 693-702.	3.5	24
30	Thermodynamics of Rubber Elasticity. Journal of Chemical Education, 2001, 78, 263.	2.3	22
31	A preliminary assessment of a detailed two stream short-wave narrow-band model using spectral radiation measurements. Solar Energy, 1997, 61, 265-273.	6.1	21
32	Ten years of measured UV Index from the Spanish UVB Radiometric Network. Journal of Photochemistry and Photobiology B: Biology, 2013, 125, 1-7.	3.8	21
33	Determinación de la dosis eritemática mínima y reacciones anómalas a radiación ultravioleta A según fototipo. Actas Dermo-sifilográficas, 2014, 105, 780-788.	0.4	21
34	Multiyear in-situ measurements of atmospheric aerosol absorption properties at an urban coastal site in western Mediterranean. Atmospheric Environment, 2016, 129, 18-26.	4.1	21
35	Empirical estimates of the radiative impact of an unusually extreme dust and wildfire episode on the performance of a photovoltaic plant in Western Mediterranean. Applied Energy, 2019, 235, 1226-1234.	10.1	21
36	Intercomparison of Spectroradiometers for Global and Direct Solar Irradiance in the Visible Range. Journal of Atmospheric and Oceanic Technology, 2003, 20, 997-1010.	1.3	19

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37	Aerosol radiative forcing efficiency in the UV region over southeastern Mediterranean: VELETA2002 campaign. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	19
38	The erythemal clearness index for Valencia, Spain. <i>International Journal of Climatology</i> , 2009, 29, 147-155.	3.5	19
39	Impact of dust and smoke mixing on column-integrated aerosol properties from observations during a severe wildfire episode over Valencia (Spain). <i>Science of the Total Environment</i> , 2017, 599-600, 2121-2134.	8.0	19
40	Analysis of four years of ceilometer-derived aerosol backscatter profiles in a coastal site of the western Mediterranean. <i>Atmospheric Research</i> , 2018, 213, 331-345.	4.1	19
41	The influence of ozone and aerosols on the experimental values of UV erythemal radiation at ground level in Valencia. <i>International Journal of Climatology</i> , 2009, 29, 2171-2182.	3.5	17
42	Analysis of a severe pollution episode in Valencia (Spain) and its effect on ground level particulate matter. <i>Journal of Aerosol Science</i> , 2013, 56, 41-52.	3.8	17
43	Relationship between the effective cloud optical depth and different atmospheric transmission factors. <i>Atmospheric Research</i> , 2015, 160, 50-58.	4.1	17
44	The UV Index on the Spanish Mediterranean Coast. <i>Photochemistry and Photobiology</i> , 2005, 81, 659.	2.5	16
45	Sensitivity of shortwave radiative fluxes to the vertical distribution of aerosol single scattering albedo in the presence of a desert dust layer. <i>Atmospheric Environment</i> , 2010, 44, 2787-2791.	4.1	15
46	Ozone mini-holes over Valencia (Spain) and their influence on the UV erythemal radiation. <i>International Journal of Climatology</i> , 2011, 31, 1554-1566.	3.5	15
47	Long term analysis of the columnar and surface aerosol relationship at an urban European coastal site. <i>Atmospheric Environment</i> , 2017, 167, 309-322.	4.1	15
48	Influence of cloudiness over the values of erythemal radiation in Valencia, Spain. <i>International Journal of Climatology</i> , 2010, 30, 127-136.	3.5	14
49	Diffuse Ultraviolet Erythemal Irradiance on Inclined Planes: A Comparison of Experimental and Modeled Data. <i>Photochemistry and Photobiology</i> , 2009, 85, 1245-1253.	2.5	14
50	Study of the correlation between columnar aerosol burden, suspended matter at ground and chemical components in a background European environment. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	14
51	Effective cloud optical depth for overcast conditions determined with a UV radiometers. <i>International Journal of Climatology</i> , 2014, 34, 3939-3952.	3.5	14
52	Estimation of the diffuse solar irradiation from global solar irradiation. Daily and monthly average daily values. <i>Renewable Energy</i> , 1994, 4, 95-100.	8.9	13
53	Retrieval of the aerosol size distribution from spectroradiometer measurements at a coastal site in the Mediterranean Sea. <i>International Journal of Remote Sensing</i> , 1999, 20, 2167-2182.	2.9	13
54	Climatology of the Aerosol Extinction-to-Backscatter Ratio from Sun-Photometric Measurements. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2010, 48, 237-249.	6.3	13

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55	Operational considerations to improve total ozone measurements with a Microtops II ozone monitor. Atmospheric Measurement Techniques, 2012, 5, 759-769.	3.1	13
56	Aerosol size distributions and air mass back trajectories over a Mediterranean coastal site. International Journal of Remote Sensing, 2004, 25, 39-50.	2.9	12
57	UVER and UV index at high altitude in Northwestern Argentina. Journal of Photochemistry and Photobiology B: Biology, 2016, 163, 290-295.	3.8	12
58	Feasibility of Ground-Based Sky-Camera HDR Imagery to Determine Solar Irradiance and Sky Radiance over Different Geometries and Sky Conditions. Remote Sensing, 2021, 13, 5157.	4.0	11
59	Authors' Reply. Solar Energy, 1992, 49, 213-214.	6.1	10
60	Estimation of daily average values of the Å...ngstrÅm turbidity coefficient $\hat{\tau}^2$ using a Corrected Yang Hybrid Model. Renewable Energy, 2013, 51, 182-188.	8.9	10
61	Wavelength dependence of the effective cloud optical depth. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 130-131, 14-22.	1.6	10
62	Heating rate profiles and radiative forcing due to a dust storm in the Western Mediterranean using satellite observations. Atmospheric Environment, 2017, 160, 142-153.	4.1	10
63	Relationship between erythemal UV and broadband solar irradiation at high altitude in Northwestern Argentina. Energy, 2018, 162, 136-147.	8.8	10
64	Experimental values of the UV index during 2000 at two locations in Mediterranean Spain. International Journal of Climatology, 2002, 22, 501-508.	3.5	9
65	Energy saving and solar energy use in the University of Valencia (Spain). Renewable Energy, 2004, 29, 675-685.	8.9	9
66	Measurement and Analysis of Broadband UVB Solar Radiation in Spain. Photochemistry and Photobiology, 2012, 88, 1489-1496.	2.5	9
67	A comparison of Microtops II and satellite ozone measurements in the period 2001-2011. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 94, 5-12.	1.6	9
68	A New Method for Determining the Å...ngstrÅm Turbidity Coefficient from Broadband Filter Measurements. Journal of Applied Meteorology and Climatology, 2000, 39, 863-874.	1.7	8
69	Column-integrated aerosol optical properties in Sodankylä (Finland) during the Solar Induced Fluorescence Experiment (SIFLEX-2002). Journal of Geophysical Research, 2006, 111, .	3.3	8
70	Relationship between $\langle \text{scp} \rangle \text{UVB} \langle / \text{scp} \rangle$ and broadband solar radiation in Spain. International Journal of Climatology, 2015, 35, 1761-1771.	3.5	8
71	Assessment and application of MODIS ocean and land algorithms for the characterization of aerosol properties over a Mediterranean coastal site. Atmospheric Research, 2015, 157, 66-73.	4.1	8
72	Comparison of Cloud Amounts Retrieved with Three Automatic Methods and Visual Observations. Atmosphere, 2022, 13, 937.	2.3	7

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73	Spectral solar irradiance in the range 300–1100 nm measured at València, Spain. <i>Renewable Energy</i> , 1995, 6, 997-1003.	8.9	6
74	A multi-instrument approach for characterizing the atmospheric aerosol optical thickness during the STAAARTE/DAISEX-99 campaign. <i>Geophysical Research Letters</i> , 2002, 29, 12-1.	4.0	6
75	Column-integrated aerosol optical properties in the free troposphere: case study-Sierra Nevada, Spain. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2004, 42, 2268-2276.	6.3	6
76	Approaches to partitioning the global UVER irradiance into its direct and diffuse components in Valencia, Spain. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	6
77	Sensitivity of UVER enhancement to broken liquid water clouds: A Monte Carlo approach. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 949-964.	3.3	6
78	Characterization of the atmosphere during SEN2FLEX 2005 field campaign. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	5
79	Incorporation of aerosol effects in a clear-sky semi-empirical model of UVER radiation for Valencia, Spain. <i>International Journal of Climatology</i> , 2011, 31, 937-948.	3.5	5
80	Modelling of the UV Index on vertical and 40° tilted planes for different orientations. <i>Photochemical and Photobiological Sciences</i> , 2012, 11, 333-344.	2.9	5
81	AEROGUI: A Graphical User Interface for the Optical Properties of Aerosols. <i>Bulletin of the American Meteorological Society</i> , 2014, 95, 1863-1871.	3.3	5
82	UV Index on Tilted Surfaces. <i>Photochemistry and Photobiology</i> , 2006, 82, 1047.	2.5	4
83	Atmospheric Components Determination From Ground-Level Measurements During the Spectra Barax Campaigns (SPARC) Field Campaigns. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2007, 45, 2778-2793.	6.3	4
84	Column aerosol characterization in a semi-arid region around Marrakech during the WATERMED 2003 campaign. <i>International Journal of Remote Sensing</i> , 2008, 29, 5013-5027.	2.9	4
85	AERONET and Euroskyrad (ESR) aerosol optical depth intercomparison on Cimel CE318 and Prede POM01 radiometers. , 2010, , .		4
86	An empirical model of erythemal ultraviolet radiation in the city of Valencia, Spain. <i>Photochemical and Photobiological Sciences</i> , 2013, 12, 1707.	2.9	4
87	Effect of the relative optical air mass and the clearness index on solar erythemal UV irradiance. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2014, 138, 92-98.	3.8	4
88	Analysis of Desert Dust Outbreaks Over Southern Europe Using CALIOP Data and Ground-Based Measurements. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 744-756.	6.3	4
89	Effective cloud optical depth and enhancement effects for broken liquid water clouds in Valencia (Spain). <i>Atmospheric Research</i> , 2017, 195, 1-8.	4.1	4
90	A new inversion algorithm to retrieve instantaneous values for the aerosol optical depth from spectral irradiance measurements. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2000, 38, 579-586.	6.3	3

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91	A Preliminary Estimation of the Direct Ultraviolet Spectral Irradiance in Valencia (Spain): Comparison with Measured Values. Radiation Protection Dosimetry, 2000, 91, 177-180.	0.8	3
92	UV Index experimental values on vertical surfaces. International Journal of Climatology, 2012, 32, 2066-2072.	3.5	3
93	Measurements of integrated direct, diffuse and global ultraviolet-B radiation. Energy, 2015, 93, 1658-1662.	8.8	3
94	<title>Comparison of two methods for inferring total columnar ozone amount and aerosol optical depth</title>. , 1995, , .		2
95	Preliminary study of the influence of the urban effect on the spectral aerosol optical thickness in a Mediterranean coastal site. , 1998, , .		2
96	Proposal of a simple model for the characterization of aerosols in relation to the dominant air masses. International Journal of Remote Sensing, 2013, 34, 3625-3635.	2.9	2
97	Remote Sensing Master and Doctorate (PhD) at the Valencia University, Spain [Education]. IEEE Geoscience and Remote Sensing Magazine, 2014, 2, 67-73.	9.6	2
98	Validaci3n de los datos de radiaci3n solar UV del Ozone Monitoring Instrument (OMI) a partir de medidas con base en tierra en la costa mediterr3nea. Revista De Teledeteccion, 2016, , 13.	0.6	2
99	<title>Ozone content determination and aerosol characteristics from spectral radiation measurements in Valladolid (Spain)</title>. , 1995, , .		1
100	Empirical determination of direct aerosol radiative effects in the shortwave and longwave spectral ranges during desert dust events over Valencia (Spain). , 2013, , .		1
101	Estimation of cloud optical depth for low clouds from UV erythemal irradiance. , 2013, , .		1
102	Retrieving aerosol properties using signals from an All-Sky camera and a random forest model. , 2021, , .		1
103	Comparison of two different techniques to determine the cloud cover from all-sky imagery. , 2021, , .		1
104	Seasonal analysis of cloud characteristics and radiative effect over the Iberian Peninsula using MODIS-CERES observations. Tethys, 0, , .	0.0	1
105	Validation of the monthly mean hourly solar irradiance Helios model from Valencia (Spain) experimental data. Renewable Energy, 1994, 4, 863-867.	8.9	0
106	Analysis of the atmospheric water vapor content determination in the 940-nm band using moderate spectral resolution measurements of direct solar irradiance. , 1998, , .		0
107	Aerosol optical depth derived from lidar measurements during VELETA-2002 campaign. , 2004, 5235, 477.		0
108	<title>UVB and erythemal solar radiation on tilted planes in Valencia, Spain</title>. , 2004, , .		0

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109	A Method For Retrieving Water Vapor Columnar Content And Aerosol Optical Thickness. AIP Conference Proceedings, 2006, , .	0.4	0