

Roberta Vecchi

List of Publications by Year in descending order

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96
papers

5,645
citations

76294

40
h-index

82499

72
g-index

115
all docs

115
docs citations

115
times ranked

5392
citing authors

#	ARTICLE	IF	CITATIONS
1	Source apportionment of particulate matter in Europe: A review of methods and results. <i>Journal of Aerosol Science</i> , 2008, 39, 827-849.	1.8	812
2	Characterisation of PM10 and PM2.5 particulate matter in the ambient air of Milan (Italy). <i>Atmospheric Environment</i> , 2001, 35, 4639-4650.	1.9	453
3	Characterization of particulate matter sources in an urban environment. <i>Science of the Total Environment</i> , 2008, 401, 81-89.	3.9	231
4	Soot reference materials for instrument calibration and intercomparisons: a workshop summary with recommendations. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1869-1887.	1.2	197
5	The impact of fireworks on airborne particles. <i>Atmospheric Environment</i> , 2008, 42, 1121-1132.	1.9	196
6	The role of atmospheric dispersion in the seasonal variation of PM1 and PM2.5 concentration and composition in the urban area of Milan (Italy). <i>Atmospheric Environment</i> , 2004, 38, 4437-4446.	1.9	187
7	Spatial and seasonal variability of carbonaceous aerosol across Italy. <i>Atmospheric Environment</i> , 2014, 99, 587-598.	1.9	137
8	Source apportionment of PM10 and PM2.5 in Milan (Italy) using receptor modelling. <i>Science of the Total Environment</i> , 2003, 317, 137-147.	3.9	136
9	Source apportionment of fine and coarse particles at a roadside and urban background site in London during the 2012 summer ClearLo campaign. <i>Environmental Pollution</i> , 2017, 220, 766-778.	3.7	125
10	Characterization of atmospheric aerosols at Monte Cimone, Italy, during summer 2004: Source apportionment and transport mechanisms. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	106
11	PM10 source apportionment in Milan (Italy) using time-resolved data. <i>Science of the Total Environment</i> , 2011, 409, 4788-4795.	3.9	103
12	A study on nighttimeâ€“daytime PM10 concentration and elemental composition in relation to atmospheric dispersion in the urban area of Milan (Italy). <i>Atmospheric Environment</i> , 2007, 41, 2136-2144.	1.9	101
13	The impact of long-range-transport on PM1 and PM2.5 at a Central Mediterranean site. <i>Atmospheric Environment</i> , 2013, 71, 176-186.	1.9	101
14	Multi-wavelength optical determination of black and brown carbon in atmospheric aerosols. <i>Atmospheric Environment</i> , 2015, 108, 1-12.	1.9	96
15	A mass closure and PMF source apportionment study on the sub-micron sized aerosol fraction at urban sites in Italy. <i>Atmospheric Environment</i> , 2008, 42, 2240-2253.	1.9	95
16	Elemental characterization of PM10, PM2.5 and PM1 in the town of Genoa (Italy). <i>Chemosphere</i> , 2006, 62, 226-232.	4.2	93
17	Hourly elemental composition and sources identification of fine and coarse PM10 particulate matter in four Italian towns. <i>Journal of Aerosol Science</i> , 2003, 34, 243-259.	1.8	89
18	Organic and inorganic sampling artefacts assessment. <i>Atmospheric Environment</i> , 2009, 43, 1713-1720.	1.9	88

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19	ECOC comparison exercise with identical thermal protocols after temperature offset correction â€“ instrument diagnostics by in-depth evaluation of operational parameters. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 779-792.	1.2	87
20	Estimates of wood burning contribution to PM by the macro-tracer method using tailored emission factors. <i>Atmospheric Environment</i> , 2011, 45, 6642-6649.	1.9	83
21	Saharan dust impact in central Italy: An overview on three years elemental data records. <i>Atmospheric Environment</i> , 2012, 60, 444-452.	1.9	76
22	Receptor modelling of airborne particulate matter in the vicinity of a major steelworks site. <i>Science of the Total Environment</i> , 2014, 490, 488-500.	3.9	72
23	Technical Note: On the effect of water-soluble compounds removal on EC quantification by TOT analysis in urban aerosol samples. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10193-10203.	1.9	67
24	Radiocarbon analysis on organic and elemental carbon in aerosol samples and source apportionment at an urban site in Northern Italy. <i>Journal of Aerosol Science</i> , 2013, 56, 88-99.	1.8	67
25	Ozone assessment in the southern part of the Alps. <i>Atmospheric Environment</i> , 1998, 33, 97-109.	1.9	65
26	An integrated approach to assess air pollution threats to cultural heritage in a semi-confined environment: The case study of Michelozzo's Courtyard in Florence (Italy). <i>Science of the Total Environment</i> , 2010, 408, 1403-1413.	3.9	65
27	A new methodology to assess the performance and uncertainty of source apportionment models II: The results of two European intercomparison exercises. <i>Atmospheric Environment</i> , 2015, 123, 240-250.	1.9	63
28	A simplified method for levoglucosan quantification in wintertime atmospheric particulate matter by high performance anion-exchange chromatography coupled with pulsed amperometric detection. <i>International Journal of Environmental Analytical Chemistry</i> , 2010, 90, 934-947.	1.8	56
29	Carbonaceous Aerosols in the Atmosphere. <i>Atmosphere</i> , 2018, 9, 181.	1.0	55
30	Optimisation of analytical procedures for the quantification of ionic and carbonaceous fractions in the atmospheric aerosol and applications to ambient samples. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 1123-1132.	1.9	54
31	First Results of the â€œCarbonaceous Aerosol in Rome and Environs (CARE)â€•Experiment: Beyond Current Standards for PM10. <i>Atmosphere</i> , 2017, 8, 249.	1.0	54
32	Characterization of airborne particulate matter in an industrial district near Florence by PIXE and PESA. <i>X-Ray Spectrometry</i> , 2005, 34, 323-329.	0.9	49
33	Factors influencing mass concentration and chemical composition of fine aerosols during a PM high pollution episode. <i>Science of the Total Environment</i> , 2002, 298, 65-79.	3.9	47
34	Chemicalâ€“physical and Microbiological Measurements for Indoor Air Quality Assessment at the Caâ€™™ Granda Historical Archive, Milan (Italy). <i>Water, Air, and Soil Pollution</i> , 2009, 201, 109-120.	1.1	47
35	Surface chemical characterization of PM10 samples by XPS. <i>Applied Surface Science</i> , 2014, 307, 120-128.	3.1	46
36	Analysis of the chemical composition of ultrafine particles from two domestic solid biomass fired room heaters under simulated real-world use. <i>Atmospheric Environment</i> , 2017, 150, 87-97.	1.9	45

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37	4-hours resolution data to study PM10 in a "hot spot" area in Europe. <i>Environmental Monitoring and Assessment</i> , 2009, 154, 283-300.	1.3	44
38	A TGA/FT-IR study for measuring OC and EC in aerosol samples. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 255-266.	1.9	43
39	Seasonal variation of ²¹⁰ Pb activity concentration in outdoor air of Milan (Italy). <i>Journal of Environmental Radioactivity</i> , 2005, 82, 251-266.	0.9	42
40	Improvements in PIXE analysis of hourly particulate matter samples. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 363, 99-104.	0.6	41
41	Evaluation of receptor and chemical transport models for PM10 source apportionment. <i>Atmospheric Environment: X</i> , 2020, 5, 100053.	0.8	41
42	A multi-wavelength optical set-up for the characterization of carbonaceous particulate matter. <i>Journal of Aerosol Science</i> , 2013, 60, 34-46.	1.8	39
43	A filter-based light-absorption measurement with polar photometer: Effects of sampling artefacts from organic carbon. <i>Journal of Aerosol Science</i> , 2014, 70, 15-25.	1.8	39
44	PIXE and XRF analysis of particulate matter samples: an inter-laboratory comparison. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 2401-2404.	0.6	38
45	Assessment of light extinction at a European polluted urban area during wintertime: Impact of PM1 composition and sources. <i>Environmental Pollution</i> , 2018, 233, 679-689.	3.7	36
46	Canopy uptake dominates nighttime carbonyl sulfide fluxes in a boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 11453-11465.	1.9	34
47	The chemical composition of ultrafine particles and associated biological effects at an alpine town impacted by wood burning. <i>Science of the Total Environment</i> , 2017, 587-588, 223-231.	3.9	33
48	Classifying aerosol particles through the combination of optical and physical-chemical properties: Results from a wintertime campaign in Rome (Italy). <i>Atmospheric Research</i> , 2020, 235, 104799.	1.8	33
49	Determination of the multiple-scattering correction factor and its cross-sensitivity to scattering and wavelength dependence for different AE33 Aethalometer filter tapes: a multi-instrumental approach. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 6335-6355.	1.2	31
50	Elemental composition and source apportionment of particulate matter near a steel plant in Genoa (Italy). <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 249, 548-551.	0.6	30
51	Hourly composition of gas and particle phase pollutants at a central urban background site in Milan, Italy. <i>Atmospheric Research</i> , 2017, 186, 83-94.	1.8	30
52	A new methodological approach: The combined use of two-stage streaker samplers and optical particle counters for the characterization of airborne particulate matter. <i>Atmospheric Environment</i> , 2007, 41, 5525-5535.	1.9	27
53	Ultrafine Particles from Residential Biomass Combustion: A Review on Experimental Data and Toxicological Response. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4992.	1.8	27
54	Exploiting multi-wavelength aerosol absorption coefficients in a multi-time resolution source apportionment study to retrieve source-dependent absorption parameters. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11235-11252.	1.9	27

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55	Size-segregated aerosol in a hot-spot pollution urban area: Chemical composition and three-way source apportionment. <i>Environmental Pollution</i> , 2017, 231, 601-611.	3.7	26
56	Radon-based estimates of equivalent mixing layer heights: A long-term assessment. <i>Atmospheric Environment</i> , 2019, 197, 150-158.	1.9	26
57	⁷ Be in surface air: A natural atmospheric tracer. <i>Journal of Aerosol Science</i> , 1997, 28, 895-900.	1.8	25
58	Composition, components and sources of fine aerosol fractions using multielemental EDXRF analysis. <i>X-Ray Spectrometry</i> , 2004, 33, 267-272.	0.9	25
59	Carbonate measurements in PM ₁₀ near the marble quarries of Carrara (Italy) by infrared spectroscopy (FT-IR) and source apportionment by positive matrix factorization (PMF). <i>Atmospheric Environment</i> , 2011, 45, 6481-6487.	1.9	25
60	Temporal variation of ²¹² Pb concentration in outdoor air of Milan and a comparison with ²¹⁴ Bi. <i>Journal of Environmental Radioactivity</i> , 2003, 65, 77-90.	0.9	24
61	Ultrafine particles (UFPs) from domestic wood stoves: genotoxicity in human lung carcinoma A549 cells. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2017, 820, 39-46.	0.9	24
62	Insights on wood combustion generated proinflammatory ultrafine particles (UFP). <i>Toxicology Letters</i> , 2017, 266, 74-84.	0.4	24
63	Intercomparison of ¹⁴ C Analysis of Carbonaceous Aerosols: Exercise 2009. <i>Radiocarbon</i> , 2013, 55, 1496-1509.	0.8	23
64	An alternative way to determine the size distribution of airborne particulate matter. <i>Atmospheric Environment</i> , 2010, 44, 3304-3313.	1.9	22
65	Implementing constrained multi-time approach with bootstrap analysis in ME-2: An application to PM _{2.5} data from Florence (Italy). <i>Science of the Total Environment</i> , 2016, 541, 502-511.	3.9	21
66	Natural radioactivity and radon exhalation in stony materials. <i>Journal of Environmental Radioactivity</i> , 1997, 34, 149-159.	0.9	20
67	Determination of Aethalometer multiple-scattering enhancement parameters and impact on source apportionment during the winter 2017/18 EMEP/ACTRIS/COLOSSAL campaign in Milan. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 2919-2940.	1.2	20
68	The new sample preparation line for radiocarbon measurements on atmospheric aerosol at LABEC. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011, 269, 203-208.	0.6	19
69	Set-up of a multi wavelength polar photometer for off-line absorption coefficient measurements on 1-h resolved aerosol samples. <i>Journal of Aerosol Science</i> , 2017, 107, 84-93.	1.8	19
70	Weekly cycle assessment of PM mass concentrations and sources, and impacts on temperature and wind speed in Southern Italy. <i>Atmospheric Research</i> , 2019, 218, 129-144.	1.8	18
71	EDXRF setup for size-segregated aerosol samples analysis. <i>X-Ray Spectrometry</i> , 2011, 40, 79-87.	0.9	17
72	Advances on the immunotoxicity of outdoor particulate matter: A focus on physical and chemical properties and respiratory defence mechanisms. <i>Science of the Total Environment</i> , 2021, 780, 146391.	3.9	17

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73	A multi-year source apportionment of PM _{2.5} at multiple sites in the southern Po Valley (Italy). <i>Atmospheric Pollution Research</i> , 2021, 12, 101192.	1.8	15
74	Aerosol characterisation in Italian towns by IBA techniques. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002, 190, 471-476.	0.6	13
75	PIXE analysis of PM ₁₀ and PM _{2.5} with hourly resolution from Michelozzo's Courtyard in Palazzo Vecchio (Florence, Italy). <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 249, 552-555.	0.6	13
76	Atmospheric aerosol characterisation by Ion Beam Analysis techniques: recent improvements at the Van de Graaff laboratory in Florence. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 219-220, 166-170.	0.6	12
77	PIXE and ToF-SIMS analysis of streaker samplers filters. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 222, 261-269.	0.6	12
78	Tailored coefficients in the algorithm to assess reconstructed light extinction at urban sites: A comparison with the IMPROVE revised approach. <i>Atmospheric Environment</i> , 2018, 172, 168-176.	1.9	10
79	Intensive optical parameters of pollution sources identified by the positive matrix factorization technique. <i>Atmospheric Research</i> , 2020, 244, 105029.	1.8	10
80	Single Particle Extinction and Scattering allows novel optical characterization of aerosols. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	0.8	9
81	Composition and origin of PM _{2.5} in Mediterranean Countryside. <i>Environmental Pollution</i> , 2019, 246, 294-302.	3.7	9
82	Gaining knowledge on source contribution to aerosol optical absorption properties and organics by receptor modelling. <i>Atmospheric Environment</i> , 2020, 243, 117873.	1.9	9
83	Consistent determination of the heating rate of light-absorbing aerosol using wavelength- and time-dependent Aethalometer multiple-scattering correction. <i>Science of the Total Environment</i> , 2021, 791, 148277.	3.9	9
84	Effectiveness of airborne radon progeny assessment for atmospheric studies. <i>Atmospheric Research</i> , 2021, 250, 105390.	1.8	7
85	On the Redox-Activity and Health-Effects of Atmospheric Primary and Secondary Aerosol: Phenomenology. <i>Atmosphere</i> , 2022, 13, 704.	1.0	7
86	Energy-dispersive X-ray fluorescence analysis applied to biomonitoring on alps. <i>Biological Trace Element Research</i> , 1994, 43-45, 223-228.	1.9	5
87	UFP and BC at a mid-sized city in Po valley, Italy: Size-resolved partitioning between primary and newly formed particles. <i>Atmospheric Environment</i> , 2016, 142, 120-131.	1.9	5
88	Applicability of benchtop multi-wavelength polar photometers to off-line measurements of the Multi-Angle Absorption Photometer (MAAP) samples. <i>Journal of Aerosol Science</i> , 2021, 152, 105701.	1.8	5
89	Impact of particle size, refractive index, and shape on the determination of the particle scattering coefficient – an optical closure study evaluating different nephelometer angular truncation and illumination corrections. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3161-3187.	1.2	5
90	Applications of radiocarbon measurements in environmental studies at INFN-LABEC, Florence. <i>EPJ Web of Conferences</i> , 2012, 24, 07002.	0.1	2

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91	Ozone measurements and correlations with Be-7 in an Alpine Italian Valley. Journal of Aerosol Science, 1992, 23, 961-964.	1.8	1
92	Ozone measurements in atmosphere and correlations with ⁷ Be in an Italian alpine valley. Il Nuovo Cimento Della SocietÀ Italiana Di Fisica C, 1994, 17, 565-577.	0.2	1
93	SECONDARY AEROSOL COMPONENTS CONTRIBUTION IN PM10, PM2.5 AND PM1: RESULTS OF A WINTERTIME MONITORING CAMPAIGN IN MILAN (ITALY). Journal of Aerosol Science, 2004, 35, S1057-S1058.	1.8	1
94	Applied Nuclear Physics For Atmospheric Aerosol Studies. , 2009, , .		0
95	ANALYSIS OF A WINTERTIME HIGH-POLLUTION EPISODE IN MILAN (ITALY). Journal of Aerosol Science, 2001, 32, 775-776.	1.8	0
96	Innovative Instrumentation for the Study of Atmospheric Aerosol Optical Properties. , 2018, , 47-56.		0