

Jochen K Schubert

List of Publications by Year in descending order

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99
papers

7,817
citations

57758

44
h-index

49909

87
g-index

104
all docs

104
docs citations

104
times ranked

4752
citing authors

#	ARTICLE	IF	CITATIONS
1	Diagnostic potential of breath analysis—focus on volatile organic compounds. <i>Clinica Chimica Acta</i> , 2004, 347, 25-39.	1.1	906
2	Volume-dependent compliance and ventilation-perfusion mismatch in surfactant-depleted isolated rabbit lungs. <i>Critical Care Medicine</i> , 2001, 29, 144-151.	0.9	568
3	The human volatilome: volatile organic compounds (VOCs) in exhaled breath, skin emanations, urine, feces and saliva. <i>Journal of Breath Research</i> , 2014, 8, 034001.	3.0	504
4	Noninvasive detection of lung cancer by analysis of exhaled breath. <i>BMC Cancer</i> , 2009, 9, 348.	2.6	472
5	Breath gas aldehydes as biomarkers of lung cancer. <i>International Journal of Cancer</i> , 2010, 126, 2663-2670.	5.1	359
6	Isoprene and acetone concentration profiles during exercise on an ergometer. <i>Journal of Breath Research</i> , 2009, 3, 027006.	3.0	249
7	Determination of volatile organic compounds in exhaled breath of patients with lung cancer using solid phase microextraction and gas chromatography mass spectrometry. <i>Clinical Chemistry and Laboratory Medicine</i> , 2009, 47, 550-60.	2.3	216
8	TD-GC-MS Analysis of Volatile Metabolites of Human Lung Cancer and Normal Cells <i>In vitro</i> . <i>Cancer Epidemiology Biomarkers and Prevention</i> , 2010, 19, 182-195.	2.5	205
9	Breath biomarkers for lung cancer detection and assessment of smoking related effects—confounding variables, influence of normalization and statistical algorithms. <i>Clinica Chimica Acta</i> , 2010, 411, 1637-1644.	1.1	178
10	Release of volatile organic compounds (VOCs) from the lung cancer cell line CALU-1 <i>in vitro</i> . <i>Cancer Cell International</i> , 2008, 8, 17.	4.1	163
11	Analysis of Exhaled Breath for Disease Detection. <i>Annual Review of Analytical Chemistry</i> , 2014, 7, 455-482.	5.4	160
12	Impact of sampling procedures on the results of breath analysis. <i>Journal of Breath Research</i> , 2008, 2, 026007.	3.0	132
13	Breath isoprene— aspects of normal physiology related to age, gender and cholesterol profile as determined in a proton transfer reaction mass spectrometry study. <i>Clinical Chemistry and Laboratory Medicine</i> , 2008, 46, 1011-8.	2.3	131
14	Automated Needle Trap Heart-Cut GC/MS and Needle Trap Comprehensive Two-Dimensional GC/TOF-MS for Breath Gas Analysis in the Clinical Environment. <i>Analytical Chemistry</i> , 2010, 82, 2541-2551.	6.5	128
15	Continuous Real Time Breath Gas Monitoring in the Clinical Environment by Proton-Transfer-Reaction-Time-of-Flight-Mass Spectrometry. <i>Analytical Chemistry</i> , 2013, 85, 10321-10329.	6.5	126
16	Assessment of propofol concentrations in human breath and blood by means of HS-SPME—GC—MS. <i>Clinica Chimica Acta</i> , 2008, 395, 32-37.	1.1	123
17	Breath acetone— aspects of normal physiology related to age and gender as determined in a PTR-MS study. <i>Journal of Breath Research</i> , 2009, 3, 027003.	3.0	117
18	Analysis of Volatile Disease Markers in Blood. <i>Clinical Chemistry</i> , 2001, 47, 1053-1060.	3.2	113

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19	From highly sophisticated analytical techniques to life-saving diagnostics: Technical developments in breath analysis. <i>TrAC - Trends in Analytical Chemistry</i> , 2006, 25, 665-673.	11.4	113
20	Release of volatile organic compounds from the lung cancer cell line NCI-H2087 in vitro. <i>Anticancer Research</i> , 2009, 29, 419-26.	1.1	110
21	Application of a new method for analysis of exhaled gas in critically ill patients. <i>Intensive Care Medicine</i> , 1998, 24, 415-421.	8.2	97
22	CO ₂ -controlled sampling of alveolar gas in mechanically ventilated patients. <i>Journal of Applied Physiology</i> , 2001, 90, 486-492.	2.5	97
23	Breath analysis in critically ill patients: potential and limitations. <i>Expert Review of Molecular Diagnostics</i> , 2004, 4, 619-629.	3.1	97
24	Multibed Needle Trap Devices for on Site Sampling and Preconcentration of Volatile Breath Biomarkers. <i>Analytical Chemistry</i> , 2009, 81, 5851-5857.	6.5	97
25	Impact of inspired substance concentrations on the results of breath analysis in mechanically ventilated patients. <i>Biomarkers</i> , 2005, 10, 138-152.	1.9	93
26	Needle trap micro-extraction for VOC analysis: Effects of packing materials and desorption parameters. <i>Journal of Chromatography A</i> , 2012, 1219, 29-38.	3.7	92
27	Data interpretation in breath biomarker research: pitfalls and directions. <i>Journal of Breath Research</i> , 2012, 6, 036007.	3.0	84
28	Phase-resolved real-time breath analysis during exercise by means of smart processing of PTR-MS data. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2079-2091.	3.7	77
29	Analysis of volatile organic compounds (VOCs) in the headspace of NCI-H1666 lung cancer cells. <i>Cancer Biomarkers</i> , 2011, 7, 153-161.	1.7	77
30	Monitoring of oxidative and metabolic stress during cardiac surgery by means of breath biomarkers: an observational study. <i>Journal of Cardiothoracic Surgery</i> , 2007, 2, 37.	1.1	74
31	Evaluation of needle trap micro-extraction and automatic alveolar sampling for point-of-care breath analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 3105-3115.	3.7	69
32	Instant effects of changing body positions on compositions of exhaled breath. <i>Journal of Breath Research</i> , 2015, 9, 047105.	3.0	68
33	Immediate effects of breath holding maneuvers onto composition of exhaled breath. <i>Journal of Breath Research</i> , 2014, 8, 037102.	3.0	66
34	Breath Markers and Soluble Lipid Peroxidation Markers in Critically Ill Patients. <i>Clinical Chemistry and Laboratory Medicine</i> , 2002, 40, 587-94.	2.3	65
35	VOC breath profile in spontaneously breathing awake swine during Influenza A infection. <i>Scientific Reports</i> , 2018, 8, 14857.	3.3	61
36	Drug detection in breath: effects of pulmonary blood flow and cardiac output on propofol exhalation. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2093-102.	3.7	56

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37	FEV manoeuvre induced changes in breath VOC compositions: an unconventional view on lung function tests. <i>Scientific Reports</i> , 2016, 6, 28029.	3.3	56
38	New coated SPME fibers for extraction and fast HPLC determination of selected drugs in human blood. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2010, 53, 1022-1027.	2.8	49
39	Metabolic monitoring and assessment of anaerobic threshold by means of breath biomarkers. <i>Metabolomics</i> , 2012, 8, 1069-1080.	3.0	49
40	Volatile Emissions from <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i> Mirror Bacterial Growth and Enable Distinction of Different Strains. <i>PLoS ONE</i> , 2013, 8, e76868.	2.5	48
41	Exhaled volatile substances mirror clinical conditions in pediatric chronic kidney disease. <i>PLoS ONE</i> , 2017, 12, e0178745.	2.5	47
42	Polypyrrole solid phase microextraction: A new approach to rapid sample preparation for the monitoring of antibiotic drugs. <i>Analytica Chimica Acta</i> , 2010, 667, 77-82.	5.4	46
43	Determination of antibiotic drug concentrations in circulating human blood by means of solid phase micro-extraction. <i>Clinica Chimica Acta</i> , 2007, 386, 57-62.	1.1	45
44	In Vivo Volatile Organic Compound Signatures of <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i> . <i>PLoS ONE</i> , 2015, 10, e0123980.	2.5	45
45	Drug detection in breath: non-invasive assessment of illicit or pharmaceutical drugs. <i>Journal of Breath Research</i> , 2017, 11, 024001.	3.0	42
46	Breath analysis during one-lung ventilation in cancer patients. <i>European Respiratory Journal</i> , 2012, 40, 706-713.	6.7	39
47	Effects of humidity, CO ₂ and O ₂ on real-time quantitation of breath biomarkers by means of PTR-ToF-MS. <i>Journal of Breath Research</i> , 2018, 12, 026016.	3.0	39
48	A novel visually CO ₂ controlled alveolar breath sampling technique. <i>Technology and Health Care</i> , 2006, 14, 499-506.	1.2	37
49	Surgical revision after percutaneous mitral valve repair by edge-to-edge device: when the strategy fails in the highest risk surgical population. <i>European Journal of Cardio-thoracic Surgery</i> , 2014, 46, 55-60.	1.4	37
50	Electrochemical sensor system for breath analysis of aldehydes, CO and NO. <i>Journal of Breath Research</i> , 2015, 9, 016008.	3.0	37
51	Exhaled breath compositions under varying respiratory rhythms reflects ventilatory variations: translating breathomics towards respiratory medicine. <i>Scientific Reports</i> , 2020, 10, 14109.	3.3	37
52	Analysis of exhaled breath for screening of lung cancer patients. <i>Memo - Magazine of European Medical Oncology</i> , 2010, 3, 106-112.	0.5	35
53	Applied upper-airway resistance instantly affects breath components: a unique insight into pulmonary medicine. <i>Journal of Breath Research</i> , 2017, 11, 047108.	3.0	35
54	Natural menstrual rhythm and oral contraception diversely affect exhaled breath compositions. <i>Scientific Reports</i> , 2018, 8, 10838.	3.3	35

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55	Exhaled volatile substances in children suffering from type 1 diabetes mellitus: results from a cross-sectional study. <i>Scientific Reports</i> , 2019, 9, 15707.	3.3	34
56	Monitoring of breath VOCs and electrical impedance tomography under pulmonary recruitment in mechanically ventilated patients. <i>Journal of Breath Research</i> , 2017, 11, 016005.	3.0	33
57	Method for analysis of exhaled air by microwave energy desorption coupled with gas chromatography–flame ionization detection–mass spectrometry. <i>Biomedical Applications</i> , 1998, 716, 27-38.	1.7	31
58	Staged total percutaneous treatment of aortic valve pathology and mitral regurgitation: Institutional experience. <i>Catheterization and Cardiovascular Interventions</i> , 2013, 82, E552-63.	1.7	31
59	Detection of Gaseous Compounds by Needle Trap Sampling and Direct Thermal-Desorption Photoionization Mass Spectrometry: Concept and Demonstrative Application to Breath Gas Analysis. <i>Analytical Chemistry</i> , 2015, 87, 1773-1781.	6.5	30
60	Deficiency and absence of endogenous isoprene in adults, disqualified its putative origin. <i>Heliyon</i> , 2021, 7, e05922.	3.2	30
61	Physiological variability in volatile organic compounds (VOCs) in exhaled breath and released from faeces due to nutrition and somatic growth in a standardized caprine animal model. <i>Journal of Breath Research</i> , 2015, 9, 027108.	3.0	28
62	Non-Invasive Assessment of Metabolic Adaptation in Paediatric Patients Suffering from Type 1 Diabetes Mellitus. <i>Journal of Clinical Medicine</i> , 2019, 8, 1797.	2.4	27
63	Volatile scents of influenza A and <i>S. pyogenes</i> (co-)infected cells. <i>Scientific Reports</i> , 2019, 9, 18894.	3.3	26
64	Microextraction techniques in breath biomarker analysis. <i>Bioanalysis</i> , 2014, 6, 1275-1291.	1.5	25
65	Impact of food intake on <i>in vivo</i> VOC concentrations in exhaled breath assessed in a caprine animal model. <i>Journal of Breath Research</i> , 2015, 9, 047113.	3.0	25
66	Preparation and characterization of microporous fibers for sample preparation and LC-MS determination of drugs. <i>Journal of Separation Science</i> , 2009, 32, 2448-2454.	2.5	24
67	Effects of biological and methodological factors on volatile organic compound patterns during cultural growth of <i>Mycobacterium avium</i> ssp. <i>paratuberculosis</i> . <i>Journal of Breath Research</i> , 2016, 10, 037103.	3.0	24
68	Clinical outcomes of conventional surgery versus MitraClip® therapy for moderate to severe symptomatic mitral valve regurgitation in the elderly population: an institutional experience. <i>BMC Cardiovascular Disorders</i> , 2017, 17, 85.	1.7	24
69	Percutaneous mitral valve repair with the mitralclip® system. <i>Catheterization and Cardiovascular Interventions</i> , 2013, 81, 1224-1231.	1.7	22
70	Thoratec left ventricular assist device for bridging to recovery in fulminant acute myocarditis. <i>Annals of Thoracic Surgery</i> , 2002, 74, 234-235.	1.3	20
71	Continuous real-time breath analysis in ruminants: effect of eructation on exhaled VOC profiles. <i>Journal of Breath Research</i> , 2018, 12, 036014.	3.0	20
72	Percutaneous Mitral Repair with the MitraClip System in Patients with Mild to Moderate and Severe Heart Failure: A Single-Centre Experience. <i>Cardiovascular Therapeutics</i> , 2014, 32, 66-73.	2.5	19

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73	Lipid Peroxidation Early after Brain Injury. <i>Journal of Neurotrauma</i> , 2004, 21, 667-677.	3.4	18
74	Differences in the Emission of Volatile Organic Compounds (VOCs) between Non-Differentiating and Adipogenically Differentiating Mesenchymal Stromal/Stem Cells from Human Adipose Tissue. <i>Cells</i> , 2019, 8, 697.	4.1	18
75	Changes of Exhaled Volatile Organic Compounds in Postoperative Patients Undergoing Analgesic Treatment: A Prospective Observational Study. <i>Metabolites</i> , 2020, 10, 321.	2.9	18
76	Physiological and metabolic effects of healthy female aging on exhaled breath biomarkers. <i>IScience</i> , 2022, 25, 103739.	4.1	18
77	Extending PTR based breath analysis to real-time monitoring of reactive volatile organic compounds. <i>Analyst</i> , The, 2019, 144, 7359-7367.	3.5	16
78	Volatile breath biomarkers for patient monitoring during haemodialysis. <i>Journal of Breath Research</i> , 2013, 7, 017116.	3.0	14
79	Comparative analysis of volatile organic compounds for the classification and identification of mycobacterial species. <i>PLoS ONE</i> , 2018, 13, e0194348.	2.5	14
80	Strategies for the identification of disease-related patterns of volatile organic compounds: prediction of paratuberculosis in an animal model using random forests. <i>Journal of Breath Research</i> , 2017, 11, 047105.	3.0	13
81	A novel visually CO ₂ controlled alveolar breath sampling technique. <i>Technology and Health Care</i> , 2006, 14, 499-506.	1.2	13
82	Crowd monitoring in dairy cattle—real-time VOC profiling by direct mass spectrometry. <i>Journal of Breath Research</i> , 2019, 13, 046006.	3.0	10
83	Effects of elevated oxygen levels on VOC analysis by means of PTR-ToF-MS. <i>Journal of Breath Research</i> , 2019, 13, 046004.	3.0	9
84	Investigation of the Photoionization Properties of Pharmaceutically Relevant Substances by Resonance-Enhanced Multiphoton Ionization Spectroscopy and Single-Photon Ionization Spectroscopy Using Synchrotron Radiation. <i>Applied Spectroscopy</i> , 2013, 67, 860-872.	2.2	8
85	Evaluation of needle trap microextraction and solid-phase microextraction: Obtaining comprehensive information on volatile emissions from <i>in vitro</i> cultures. <i>Biomedical Chromatography</i> , 2018, 32, e4285.	1.7	8
86	Intercomparison of Infrared Cavity Leak-Out Spectroscopy and Gas Chromatography-Flame Ionization for Trace Analysis of Ethane. <i>Analytical Chemistry</i> , 2008, 80, 2768-2773.	6.5	7
87	Detection of <i>Mycobacterium avium</i> ssp. paratuberculosis in Cultures From Fecal and Tissue Samples Using VOC Analysis and Machine Learning Tools. <i>Frontiers in Veterinary Science</i> , 2021, 8, 620327.	2.2	7
88	Breath Analysis in Critically Ill Patients—Potential and Limitations. , 2013, , 155-176.		6
89	Can Recognition of Spinal Ischemia Be Improved? Application of Motor-Evoked Potentials, Serum Markers, and Breath Gas Analysis in an Acutely Instrumented Pig Model. <i>Annals of Vascular Surgery</i> , 2018, 49, 191-205.	0.9	5
90	Effects of modular ion-funnel technology onto analysis of breath VOCs by means of real-time mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 7131-7140.	3.7	5

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91	Smell of cells: Volatile profiling of stem- and non-stem cell proliferation. Journal of Breath Research, 2018, 12, 026014.	3.0	4
92	Versatile set-up for non-invasive <i>in vitro</i> analysis of headspace VOCs. Journal of Breath Research, 2018, 12, 041001.	3.0	4
93	Core profile of volatile organic compounds related to growth of Mycobacterium avium subspecies paratuberculosis – A comparative extract of three independent studies. PLoS ONE, 2019, 14, e0221031.	2.5	4
94	Detection of Paratuberculosis in Dairy Herds by Analyzing the Scent of Feces, Alveolar Gas and Stable Air. Molecules, 2021, 26, 2854.	3.8	2
95	Ruminants. , 2020, , 441-460.		1
96	Spatial mapping of VOC exhalation by means of bronchoscopic sampling. Journal of Breath Research, 2020, 14, 046012.	3.0	1
97	Biomarkers. Analytical and Bioanalytical Chemistry, 2011, 401, 2037-2038.	3.7	0
98	Breath monitoring in the intensive care unit. , 2020, , 289-303.		0
99	Non-Invasive O-Toluidine Monitoring during Regional Anaesthesia with Prilocaine and Detection of Accidental Intravenous Injection in an Animal Model. Metabolites, 2022, 12, 502.	2.9	0