Wolfgang BÃ¼scher

List of Publications by Year
in descending order

Version: 2024-02-01

63 papers	655 citations	686830 13 h-index	713013 21 g-index
65 all docs	65 docs citations	65 times ranked	644 citing authors

#	Article	IF	Citations
1	Electronic detection of lameness in dairy cows through measuring pedometric activity and lying behavior. Applied Animal Behaviour Science, 2012, 142, 134-141.	0.8	70
2	The Role of Infrared Thermography as a Non-Invasive Tool for the Detection of Lameness in Cattle. Sensors, 2015, 15, 14513-14525.	2.1	49
3	Investigation of heating and cooling potential of a modular housing system for fattening pigs with integrated geothermal heat exchanger. Biosystems Engineering, 2014, 121, 118-129.	1.9	38
4	Indoor air quality improvement from particle matters for laying hen poultry houses. Biosystems Engineering, 2011, 109, 22-36.	1.9	25
5	Quantification of Methane and Ammonia Emissions in a Naturally Ventilated Barn by Using Defined Criteria to Calculate Emission Rates. Animals, 2018, 8, 75.	1.0	25
6	Methodological Comparison between a Novel Automatic Sampling System for Gas Chromatography versus Photoacoustic Spectroscopy for Measuring Greenhouse Gas Emissions under Field Conditions. Sensors, 2016, 16, 1638.	2.1	20
7	Physical properties of particulate matter from animal housesâ€"empirical studies to improve emission modelling. Environmental Science and Pollution Research, 2016, 23, 12253-12263.	2.7	20
8	One-Time Acidification of Slurry: What Is the Most Effective Acid and Treatment Strategy?. Agronomy, 2021, 11, 1319.	1.3	18
9	Using Passive Infrared Detectors to Record Group Activity and Activity in Certain Focus Areas in Fattening Pigs. Animals, 2020, 10, 792.	1.0	17
10	Energy Efficiency of a Heat Pump System: Case Study in Two Pig Houses. Energies, 2020, 13, 662.	1.6	17
11	Evaluation of two indoor air pollution abatement techniques in forced-ventilation fattening pig barns. Atmospheric Pollution Research, 2017, 8, 428-438.	1.8	16
12	Determining Immunoglobulin Content of Bovine Colostrum and Factors Affecting the Outcome: A Review. Animals, 2021, 11, 3587.	1.0	16
13	Pig barns ammonia and greenhouse gas emission mitigation by slurry aeration and acid scrubber. Environmental Science and Pollution Research, 2020, 27, 9444-9453.	2.7	15
14	CO2 production, dissolution and pressure dynamics during silage production: multi-sensor-based insight into parameter interactions. Scientific Reports, 2017, 7, 14721.	1.6	14
15	Using walking speed for lameness detection in lactating dairy cows. Livestock Science, 2018, 218, 119-123.	0.6	13
16	An improved penetrometer technique for determining bale density. Biosystems Engineering, 2010, 105, 273-277.	1.9	12
17	Using Sensor Data to Detect Lameness and Mastitis Treatment Events in Dairy Cows: A Comparison of Classification Models. Sensors, 2020, 20, 3863.	2.1	12
18	Effects of a slatted floor on bacteria and physical parameters in litter in broiler houses. Veterinary and Animal Science, 2020, 9, 100115.	0.6	12

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19	Tracking oxygen and temperature dynamics in maize silage-novel application of a Clark oxygen electrode. Biosystems Engineering, 2015, 139, 60-65.	1.9	11
20	Effects of Biogas Substrate Recirculation on Methane Yield and Efficiency of a Liquid-Manure-Based Biogas Plant. Energies, 2017, 10, 325.	1.6	11
21	Effects of Three Different Additives and Two Different Bulk Densities on Maize Silage Characteristics, Temperature Profiles, CO2 and O2â€“Dynamics in Small Scale Silos during Aerobic Exposure. Applied Sciences (Switzerland), 2017, 7, 545.	1.3	11
22	Image-based comparison between a Î³-ray scanner and a dual-sensor penetrometer technique for visual assessment of bale density distribution. Computers and Electronics in Agriculture, 2012, 82, 1-7.	3.7	10
23	Recording Heart Rate Variability of Dairy Cows to the Cloudâ€”Why Smartphones Provide Smart Solutions. Sensors, 2018, 18, 2541.	2.1	10
24	Support Vector machine and duration-aware conditional random field for identification of spatio-temporal activity patterns by combined indoor positioning and heart rate sensors. GeoInformatica, 2016, 20, 693-714.	2.0	9
25	Cattle Diets Strongly Affect Nitrous Oxide in the Rumen. Sustainability, 2018, 10, 3679.	1.6	9
26	Aeration of pig slurry affects ammonia and greenhouse gases emissions. International Journal of Environmental Science and Technology, 2019, 16, 7327-7338.	1.8	9
27	Feasibility Study: Improving Floor Cleanliness by Using a Robot Scraper in Group-Housed Pregnant Sows and Their Reactions on the New Device. Animals, 2019, 9, 185.	1.0	9
28	In situ measurements and simulation of oxygen diffusion and heat transfer in maize silage relative to the silo surface. Computers and Electronics in Agriculture, 2017, 137, 1-8.	3.7	8
29	Ad libitum feeding of sows with whole crop maize silageâ€”Effects on slurry parameters, technology and floor pollution. Animal Feed Science and Technology, 2020, 262, 114368.	1.1	8
30	Suitability of Different Filling Materials for a Biofilter at a Broiler Fattening Facility in Terms of Ammonia and Odour Reduction. Atmosphere, 2020, 11, 13.	1.0	8
31	Dynamics of Different Buffer Systems in Slurries Based on Time and Temperature of Storage and Their Visualization by a New Mathematical Tool. Animals, 2020, 10, 724.	1.0	8
32	Dual sensor measurement shows that temperature outperforms pH as an early sign of aerobic deterioration in maize silage. Scientific Reports, 2021, 11, 8686.	1.6	8
33	A study to identify and correct friction-induced error of penetration measurement for agricultural materials. Measurement: Journal of the International Measurement Confederation, 2012, 45, 829-835.	2.5	7
34	An Assessment of Three Different In Situ Oxygen Sensors for Monitoring Silage Production and Storage. Sensors, 2016, 16, 91.	2.1	7
35	Sources of nitrous oxide and other climate relevant gases on surface area in a dairy free stall barn with solid floor and outside slurry storage. Atmospheric Environment, 2018, 178, 41-48.	1.9	7
36	A new experimental setup for measuring greenhouse gas and volatile organic compound emissions of silage during the aerobic storage period in a special silage respiration chamber. Environmental Pollution, 2020, 267, 115513.	3.7	7

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37	The Importance of Low Daily Risk for the Prediction of Treatment Events of Individual Dairy Cows with Sensor Systems. Sensors, 2021, 21, 1389.	2.1	7
38	Suitability of Different Thermometers for Measuring Body Core and Skin Temperatures in Suckling Piglets. Animals, 2021, 11, 1004.	1.0	7
39	Effects of a Partially Perforated Flooring System on Ammonia Emissions in Broiler Housingâ€"Conflict of Objectives between Animal Welfare and Environment?. Animals, 2021, 11, 707.	1.0	6
40	Exploring animal genetic resources of the domestic chicken and their behavior in the open field. Journal of Applied Poultry Research, 2022, 31, 100237.	0.6	6
41	Comparative evaluation of equations predicting methane production of dairy cattle from feed characteristics. Archives of Animal Nutrition, 2013, 67, 279-288.	0.9	5
42	Analysis of the dust emissions from a naturally ventilated turkey house using tracer gas method. Environmental Monitoring and Assessment, 2016, 188, 377.	1.3	5
43	Mapping oxygen-induced temperature patterns of round bale silage based on 3D stepwise-profiling measurement. Measurement: Journal of the International Measurement Confederation, 2016, 82, 115-122.	2.5	5
44	Validation of a New Resource-Efficient Feeding System for Fattening Pigs Using Increased Crude Fiber Concentrations in Diets: Feed Intake and Ammonia Emissions. Animals, 2020, 10, 497.	1.0	5
45	A comparison of emission calculations using different modeled indicators with 1-year online measurements. Environmental Monitoring and Assessment, 2013, 185, 9751-9762.	1.3	4
46	The effect of different feeding regimes on horses' blocking and activity behavior at a concentrate feeding station for horses in group housing. Journal of Veterinary Behavior: Clinical Applications and Research, 2018, 24, 27-35.	0.5	4
47	Evaluation of a dry filter for dust removal under laboratory conditions in comparison to practical use at a laying hen barn. Environmental Science and Pollution Research, 2018, 25, 29511-29517.	2.7	4
48	Multi-sensor measurement of O2, CO2 and reheating in triticale silage: An extended approach from aerobic stability to aerobic microbial respiration. Biosystems Engineering, 2021, 207, 1-11.	1.9	4
49	Greenhouse gas formation during the ensiling process of grass and lucerne silage. Journal of Environmental Management, 2022, 304, 114142.	3.8	4
50	An automatic smart measurement system with signal decomposition to partition dual-source CO2 flux from maize silage. Sensors and Actuators B: Chemical, 2019, 300, 127053.	4.0	3
51	Feasibility Study on the Use of Infrared Thermography to Classify Fattening Pigs into Feeding Groups According Their Body Composition. Sensors, 2020, 20, 5221.	2.1	3
52	Automated pressure regulation for a silage bagging machine. Computers and Electronics in Agriculture, 2020, 173, 105399.	3.7	3
53	Developing a Penetrometer-Based Mapping System for Visualizing Silage Bulk Density from the Bunker Silo Face. Sensors, 2016, 16, 1038.	2.1	2
54	The effect of a compressed air stimulus on blocking times in a concentrate feeding station for horses in group housing. Applied Animal Behaviour Science, 2017, 191, 39-48.	0.8	2

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55	Heating performance of a laboratory pilot-plant combining heat exchanger and air scrubber for animal houses. Scientific Reports, 2021, 11, 6872.	1.6	2
56	Heating Performance and Ammonia Removal of a Single-Stage Bioscrubber Pilot Plant with Integrated Heat Exchanger under Field Conditions. Energies, 2021, 14, 6484.	1.6	2
57	Assessment of ammonia sensors and photoacoustic measurement systems using a gas calibration unit. Computers and Electronics in Agriculture, 2022, 194, 106744.	3.7	2
58	Corrigendum to: Optimisation of dry matter and nutrients in feed rations through use of a near-infrared spectroscopy system mounted on a self-propelled feed mixer. Animal Production Science, 2021, 61, 540.	0.6	1
59	A Multi-Sensor Mini-Bioreactor to Preselect Silage Inoculants by Tracking Metabolic Activity in situ During Fermentation. Frontiers in Microbiology, 2021, 12, 673795.	1.5	1
60	PSII-9 Body core and skin temperatures in suckling piglets measured by infrared thermography and thermometry methods. Journal of Animal Science, 2019, 97, 234-235.	0.2	1
61	Locomotion behavior of dairy cows on traditional summer mountain farms in comparison with modern cubicleÂhousing without access to pasture. PLoS ONE, 2022, 17, e0264320.	1.1	1
62	Identification of airborne particles and fungus spores concentrations within horses stables. Atmospheric Pollution Research, 2021, 12, 93-103.	1.8	0
63	Optimisation of dry matter and nutrients in feed rations through use of a near-infrared spectroscopy system mounted on a self-propelled feed mixer. Animal Production Science, 2021, 61, 514.	0.6	0