Peiqiang Yu

List of Publications by Year in descending order

284 papers	6,063 citations	76326 40 h-index	128289 60 g-index
285 all docs	285 docs citations	285 times ranked	3213 citing authors

#	Article	IF	Citations
1	Utilization of exogenous fibrolytic enzymes in fiber fermentation, degradation, and digestions and characteristics of whole legume faba bean and its plant silage. Critical Reviews in Food Science and Nutrition, 2023, 63, 6114-6125.	10.3	0
2	Research progress and future study on physicochemical, nutritional, and structural characteristics of canola and rapeseed feedstocks and co-products from bio-oil processing and nutrient modeling evaluation methods. Critical Reviews in Food Science and Nutrition, 2023, 63, 6484-6490.	10.3	3
3	Dry heating, moist heating, and microwave irradiation of coldâ€climateâ€adapted barley grainâ€"Effects on ruminantâ€relevant carbohydrate and molecular structural spectral profiles. Journal of Animal Physiology and Animal Nutrition, 2023, 107, 113-120.	2.2	2
4	Using vibrational molecular spectroscopy to reveal carbohydrate molecular structure properties of faba bean partitions and faba bean silage before and after rumen incubation in relation to nutrient availability and supply to dairy cattle. Journal of Animal Physiology and Animal Nutrition, 2023, 107, 379-393.	2.2	1
5	Utilization of synchrotron-based and globar-sourced mid-infrared spectroscopy for faba nutritional research about molecular structural and nutritional interaction. Critical Reviews in Food Science and Nutrition, 2022, 62, 1453-1465.	10.3	3
6	Research progress on faba bean and faba forage in food and feed types, physiochemical, nutritional, and molecular structural characteristics with molecular spectroscopy. Critical Reviews in Food Science and Nutrition, 2022, 62, 8675-8685.	10.3	7
7	Evaluating the effects of fibrolytic enzymes on rumen fermentation, omasal nutrient flow, and production performance in dairy cows during early lactation. Canadian Journal of Animal Science, 2022, 102, 39-49.	1.5	2
8	Combined molecular spectroscopic techniques (SR-FTIR, XRF, ATR-FTIR) to study physiochemical and nutrient profiles of Avena sativa grain and nutrition and structure interactive association properties. Critical Reviews in Food Science and Nutrition, 2022, , 1-13.	10.3	2
9	Using Mid-IR spectroscopy (ATR-FTIR) as a fast analytical tool to reveal association between protein spectral profiles and metabolizable protein supply, protein rumen degradation characteristics and estimated intestinal protein digestion before and after rumen incubation of faba bean partitions and faba bean silage. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 273, 121022.	3.9	0
10	Effects of Exogenous Fibrolytic Enzyme Derived from Trichoderma reesei on Rumen Degradation Characteristics and Degradability of Low-Tannin Whole Plant Faba Bean Silage in Dairy Cows. Dairy, 2022, 3, 303-313.	2.0	10
11	X-ray fluorescence application in food, feed, and agricultural science: a critical review. Critical Reviews in Food Science and Nutrition, 2021, 61, 2340-2350.	10.3	39
12	Processing induced changes in physicochemical structure properties and nutrient metabolism and their association in cool-season faba (CSF: Vicia L.), revealed by vibrational FTIR spectroscopy with chemometrics and nutrition modeling techniques. Critical Reviews in Food Science and Nutrition, 2021, 61, 1099-1107.	10.3	1
13	Nutrient profiles and pelleting effect of different blended co-products for dairy cows. Animal Feed Science and Technology, 2021, 272, 114740.	2.2	1
14	Novel Use of Ultra-Resolution Synchrotron Vibrational Micropectroscopy (SR-FT/vIMS) to Assess Carinata and Canola oilseed tissues within Cellular and Subcellular Dimensions. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 246, 118934.	3.9	2
15	Exploration of biodegradation traits in dairy cows and protein spectroscopic features in microwaved and moist heated tannin and non-tannin Faba bean. Animal, 2021, 15, 100046.	3.3	1
16	Research progress in structural and nutritional characterization and technologically processing impact on cool-season adapted oat and barley cereal kernels with wet chemistry and advanced vibrational molecular spectroscopy. Critical Reviews in Food Science and Nutrition, 2021, , 1-10.	10.3	1
17	Carbohydrates molecular structure profiles in relation to nutritional characteristics of newly developed low and normal tannin faba bean varieties in dairy cows analysed by using standard methods and the vibrational molecular spectroscopy (Ft/IRâ€ATR). Journal of Animal Physiology and Animal Nutrition, 2021, 105, 816-831.	2.2	1
18	Effect of extrusion of soybean meal on feed spectroscopic molecular structures and on performance, blood metabolites and nutrient digestibility of Holstein dairy calves. Animal Bioscience, 2021, 34, 855-866.	2.0	9

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19	Crude protein fractionation, in situ ruminal degradability and FTIR protein molecular structures of different cultivars within barley, corn and sorghum cereal grains. Animal Feed Science and Technology, 2021, 275, 114855.	2.2	7
20	Effects of feeding blend-pelleted co-products on nutrient intake, digestibility, and production performance of high producing dairy cows. Canadian Journal of Animal Science, 2021, 101, 234-241.	1.5	2
21	Steam pressure induced changes in carbohydrate molecular structures, chemical profile and in vitro fermentation characteristics of seeds from new Brassica carinata lines. Animal Feed Science and Technology, 2021, 276, 114903.	2.2	2
22	Evaluation of the nutritional value of faba beans with high and low tannin content for use as feed for ruminants. Journal of the Science of Food and Agriculture, 2021, , .	3.5	1
23	Recent progress in structural and nutritional characterization of faba legume and use as an environment probe with vibrational spectroscopy sourced by globar and synchrotron. Applied Spectroscopy Reviews, 2020, 55, 288-306.	6.7	9
24	Effect of processing methods (Rolling, steam-flaking, pelleting) on protein molecular structure profile, rumen degradation, and intestinal digestion of cool-climate adapted oats grain in comparison with barley grain in western Canada. Livestock Science, 2020, 232, 103901.	1.6	2
25	Using advanced vibrational molecular spectroscopy (ATR-Ft/IRS and synchrotron SR-IMS) to study an interaction between protein molecular structure from biodegradation residues and nutritional properties of cool-climate adapted faba bean seeds. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 229, 117935.	3.9	2
26	Infrared attenuated total reflection spectroscopic analysis and quantitative detection of forage spectral features in ruminant systems. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 228, 117630.	3.9	1
27	Effect of heat processing methods on the protein molecular structure, physicochemical, and nutritional characteristics of faba bean (low and normal tannin) grown in western Canada. Animal Feed Science and Technology, 2020, 269, 114681.	2.2	13
28	Application of advanced molecular spectroscopy and modern evaluation techniques in canola molecular structure and nutrition property research. Critical Reviews in Food Science and Nutrition, 2020, 61, 1-11.	10.3	6
29	Synchrotron-radiation sourced SR-IMS molecular spectroscopy to explore impact of silencing TT8 and HB12 genes in alfalfa leaves on the molecular structure and chemical mapping. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 243, 118676.	3.9	1
30	Chemical Imaging of the Microstructure of Chickpea Seed Tissue within a Cellular Dimension Using Synchrotron Infrared Microspectroscopy: A Preliminary Study. Journal of Agricultural and Food Chemistry, 2020, 68, 11586-11593.	5.2	1
31	Overexpression of miR156 and Silencing SPL6RNAi and SPL13RNAi Genes in Medicago sativa on the Changes of Carbohydrate Physiochemical, Fermentation, and Nutritional Profiles. Journal of Agricultural and Food Chemistry, 2020, 68, 14540-14548.	5.2	3
32	Implication of Modified Chemical Profiles of Different Seed Proteins through Heat-Related Processing to Protein Nutrition and Metabolic Characteristics in Ruminant Systems. Journal of Agricultural and Food Chemistry, 2020, 68, 4939-4945.	5.2	0
33	Using advanced vibrational molecular spectroscopy to detect moist heating induced protein structure changes in cool-climate adapted barley grain. PLoS ONE, 2020, 15, e0234126.	2.5	3
34	Using advanced vibrational molecular spectroscopy (ATR-Ft/IRS) to study heating process induced changes on protein molecular structure of biodegradation residues in cool-climate adapted faba bean seeds: Relationship with rumen and intestinal protein digestion in ruminant systems. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 234, 118220.	3.9	1
35	Using vibrational molecular spectroscopy to detect moist heating induced carbohydrates structure changes in cool-climate adapted barley grain. Journal of Cereal Science, 2020, 95, 103007.	3.7	4
36	Evaluation of near-infrared (NIR) and Fourier transform mid-infrared (ATR-FT/MIR) spectroscopy techniques combined with chemometrics for the determination of crude protein and intestinal protein digestibility of wheat. Food Chemistry, 2019, 272, 507-513.	8.2	50

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37	Connection of inherent structure with nutrient profiles and bioavailability of different co-products and by-products after processing using advanced grading and vibrational molecular spectroscopy. Critical Reviews in Food Science and Nutrition, 2019, 59, 2796-2806.	10.3	3
38	Effects of silencingTT8andHB12onin vitronutrients degradation and VFA production in relation to molecular structures of alfalfa (Medicago sativa). Journal of the Science of Food and Agriculture, 2019, 99, 6850-6858.	3.5	2
39	Silencing TT8 and HB12 Decreased Protein Degradation and Digestion, Microbial Synthesis, and Metabolic Protein in Relation to Molecular Structures of Alfalfa (Medicago sativa). Journal of Agricultural and Food Chemistry, 2019, 67, 7898-7907.	5.2	5
40	Biodegradation kinetics by microorganisms, enzymatic biodigestion, and fractionation of protein in seeds of cool-climate-adapted oats: Comparison among oat varieties, between milling-type and feed-type oats, and with barley grain. Journal of Cereal Science, 2019, 89, 102814.	3.7	6
41	Interactive association between processing induced molecular structure changes and nutrient delivery on a molecular basis, revealed by cutting-edge vibrational biomolecular spectroscopy. Journal of Animal Science and Biotechnology, 2019, 10, 85.	5.3	3
42	Effects of processing methods (rolling vs. pelleting vs. steam-flaking) of cool-season adapted oats on dairy cattle production performance and metabolic characteristics compared with barley. Journal of Dairy Science, 2019, 102, 10916-10924.	3.4	12
43	Genotypic impact on molecular structural, physicochemical, and nutritional characteristics of warm-season adapted sorghum kernels grown under warm climate conditions. Journal of Cereal Science, 2019, 87, 334-339.	3.7	0
44	Biodegradation Profiles of Proanthocyanidin-Accumulating Alfalfa Plants Coexpressing Lc-bHLH and C1-MYB Transcriptive Flavanoid Regulatory Genes. Journal of Agricultural and Food Chemistry, 2019, 67, 4793-4799.	5.2	5
45	Vibrational spectroscopic study on feed molecular structure properties of oil-seeds and co-products from Canadian and Chinese bio-processing and relationship with protein and carbohydrate degradation fractions in ruminant systems. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 216, 249-257.	3.9	2
46	Natural Occurrence and Co-Contamination of Twelve Mycotoxins in Industry-Submitted Cool-Season Cereal Grains Grown under a Low Heat Unit Climate Condition. Toxins, 2019, 11, 160.	3.4	23
47	A methodology study on chemical and molecular structure imaging in modified forage leaf tissue with cutting-edge synchrotron-powered technology (SR-IMS) as a potential research tool. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 213, 330-336.	3.9	2
48	Interactive Curve-Linear Relationship Between Alteration of Carbohydrate Macromolecular Structure Traits in Hulless Barley (Hordeum vulgare L.) Grain and Nutrient Utilization, Biodegradation and Bioavailability. International Journal of Molecular Sciences, 2019, 20, 1366.	4.1	3
49	Major ergot alkaloids in naturally contaminated cool-season barley grain grown under a cold climate condition in western Canada, explored with near-infrared (NIR) and fourier transform mid-infrared (ATR-FT/MIR) spectroscopy. Food Control, 2019, 102, 221-230.	5.5	22
50	Using vibrational ATR-FTIR spectroscopy with chemometrics to reveal faba CHO molecular spectral profile and CHO nutritional features in ruminant systems. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 214, 269-276.	3.9	13
51	9: Using non-invasive synchrotronbased analytical techniques in animal nutrition: a novel approach. , 2019, , 209-227.		0
52	Detect molecular spectral features of newly developed Vicia faba varieties and protein metabolic characteristics in ruminant system using advanced synchrotron radiation based infrared microspectroscopy: A preliminary study. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 206, 413-420.	3.9	7
53	Protein molecular structural, physicochemical and nutritional characteristics of warm-season adapted genotypes of sorghum grain: Impact of heat-related processing. Journal of Cereal Science, 2019, 85, 182-191.	3.7	4
54	Using vibrational molecular spectroscopy with chemometrics as an analytical method to investigate association of degradation with inherent molecular structures in grain. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 208, 331-338.	3.9	1

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55	Implications of recent research on microstructure modifications, through heat-related processing and trait alteration to bio-functions, molecular thermal stability and mobility, metabolic characteristics and nutrition in cool-climate cereal grains and other types of seeds with advanced molecular techniques. Critical Reviews in Food Science and Nutrition, 2019, 59, 2214-2224.	10.3	5
56	Contributions to advances in blend pellet products (BPP) research on molecular structure and molecular nutrition interaction by advanced synchrotron and globar molecular (Micro)spectroscopy. Critical Reviews in Food Science and Nutrition, 2019, 59, 2654-2665.	10.3	1
57	Protein molecular structure, degradation and availability of canola, rapeseed and soybean meals in dairy cattle diets. Asian-Australasian Journal of Animal Sciences, 2019, 32, 1381-1388.	2.4	6
58	Effects of heat processing methods on protein subfractions and protein degradation kinetics in dairy cattle in relation to protein molecular structure of barley grain using advanced molecular spectroscopy. Journal of Cereal Science, 2018, 80, 212-220.	3.7	22
59	Biodegradation characteristics and nutrient availability of newly developed carinata seeds in comparison with canola seeds in dairy cattle. Animal Feed Science and Technology, 2018, 240, 88-101.	2.2	3
60	Molecular spectroscopic features of protein in newly developed chickpea: Relationship with protein chemical profile and metabolism in the rumen and intestine of dairy cows. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 196, 168-177.	3.9	18
61	Using vibrational molecular spectroscopy to reveal association of steam-flaking induced carbohydrates molecular structural changes with grain fractionation, biodigestion and biodegradation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 194, 181-188.	3.9	7
62	Effect of durations of microwave irradiation (3 and 5Âmin) on truly absorbable nutrient supply of newly developed hulless barley varieties (Hordeum vulgare L.) in comparison with conventional hulled barley variety. Journal of Cereal Science, 2018, 79, 424-430.	3.7	7
63	Curve-linear relationship between altered carbohydrate traits with molecular structure and truly absorbed nutrient supply to dairy cattle in new hulless barley (Hordeum vulgare L.). Animal Feed Science and Technology, 2018, 235, 177-188.	2.2	7
64	Determine effect of pressure heating on carbohydrate related molecular structures in association with carbohydrate metabolic profiles of cool-climate chickpeas using Globar spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 201, 8-18.	3.9	6
65	Mycotoxin contamination of food and feed in China: Occurrence, detection techniques, toxicological effects and advances in mitigation technologies. Food Control, 2018, 91, 202-215.	5.5	78
66	Advanced synchrotron-based and globar-sourced molecular (micro) spectroscopy contributions to advances in food and feed research on molecular structure, mycotoxin determination, and molecular nutrition. Critical Reviews in Food Science and Nutrition, 2018, 58, 2164-2175.	10.3	8
67	Relationship between protein molecular structural makeup and metabolizable protein supply to dairy cattle from new cool-season forage corn cultivars. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 191, 303-314.	3.9	13
68	Alteration of biomacromolecule in corn by steam flaking in relation to biodegradation kinetics in ruminant, revealed with vibrational molecular spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 191, 491-497.	3.9	11
69	Potential nitrogen to energy synchronization, rumen degradation kinetics, and intestinal digestibility of blend pelleted products of new co-products from bio-fuel processing, pulse screenings and lignosulfonate compound in dairy cows. Animal Feed Science and Technology, 2018, 236, 196-207.	2.2	7
70	Relationship of carbohydrates and lignin molecular structure spectral profiles to nutrient profile in newly developed oats cultivars and barley grain. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 495-506.	3.9	16
71	Exploring the potential of applying infrared vibrational (micro)spectroscopy in ergot alkaloids determination: Techniques, current status, and challenges. Applied Spectroscopy Reviews, 2018, 53, 395-419.	6.7	14
72	347 Comparative effects of miR156. Journal of Animal Science, 2018, 96, 173-173.	0.5	0

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73	339 Effect of varieties and tannin levels (low and normal) on the physicochemical and nutritional characterization of faba bean grown in western Canada.. Journal of Animal Science, 2018, 96, 169-169.	0.5	2
74	Metabolic characteristics and feed milk value of blend pelleted products based on combination of co-products from bio-fuel/bio-oil processing, pulse screenings and lignosulfonate in dairy cattle. Animal Feed Science and Technology, 2018, 246, 62-71.	2.2	5
75	On a Molecular Basis, Investigate Association of Molecular Structure with Bioactive Compounds, Anti-Nutritional Factors and Chemical and Nutrient Profiles of Canola Seeds and Co-Products from Canola Processing: Comparison Crusher Plants within Canada and within China as well as between Canada and China. Nutrients, 2018, 10, 519.	4.1	8
76	Application of FT/IR-ATR vibrational spectroscopy to reveal protein molecular structure of feedstock and co-products from Canadian and Chinese canola processing in relation to microorganism bio-degradation and enzyme bio-digestion. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 204, 791-797.	3.9	3
77	Effect of fibrolytic enzymes on lactational performance, feeding behavior, and digestibility in high-producing dairy cows fed a barley silageâ€“based diet. Journal of Dairy Science, 2018, 101, 7971-7979.	3.4	34
78	Protein molecular structure in relation to predicted biodegradation and nutrient supply of feedstocks and co-products from bio-oil processing with CNCPS system: Comparison Crusher Plants within Canada and within China as well as between Canada and China. Animal Feed Science and Technology, 2018, 243, 125-139.	2.2	3
79	Molecular Structural Changes in Alfalfa Detected by ATR-FTIR Spectroscopy in Response to Silencing of TT8 and HB12 Genes. International Journal of Molecular Sciences, 2018, 19, 1046.	4.1	19
80	Effects ofTT8andHB12Silencing on the Relations between the Molecular Structures of Alfalfa (Medicago sativa) Plants and Their Nutritional Profiles and In Vitro Gas Production. Journal of Agricultural and Food Chemistry, 2018, 66, 5602-5611.	5.2	10
81	Recent research in flaxseed (oil seed) on molecular structure and metabolic characteristics of protein, heat processing-induced effect and nutrition with advanced synchrotron-based molecular techniques. Critical Reviews in Food Science and Nutrition, 2017, 57, 8-17.	10.3	11
82	Synchrotron-based and globar-sourced molecular (micro)spectroscopy contributions to advances in new hulless barley (with structure alteration) research on molecular structure, molecular nutrition, and nutrient delivery. Critical Reviews in Food Science and Nutrition, 2017, 57, 224-236.	10.3	10
83	The interâ€relationship between processingâ€induced molecular structure features and metabolic and digestive characteristics in hulled and hulless barley (Hordeum vulgare) grains with altered carbohydrate traits. Journal of the Science of Food and Agriculture, 2017, 97, 1207-1211.	3.5	3
84	Detect unique molecular structure associated with physiochemical properties in CDC varieties of oat grain with unique nutrient traits [Feed Type vs. Milling Type] in comparison with barley grain using advanced molecular spectroscopy as a non-destructive biological tool. Journal of Cereal Science, 2017, 74, 37-45.	3.7	15
85	Bio-functions and molecular carbohydrate structure association study in forage with different source origins revealed using non-destructive vibrational molecular spectroscopy techniques. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 183, 260-266.	3.9	3
86	Comparison of grating-based near-infrared (NIR) and Fourier transform mid-infrared (ATR-FT/MIR) spectroscopy based on spectral preprocessing and wavelength selection for the determination of crude protein and moisture content in wheat. Food Control, 2017, 82, 57-65.	5.5	90
87	Recent research on inherent molecular structure, physiochemical properties, and bio-functions of food and feed-typeAvena sativaoats and processing-induced changes revealed with molecular microspectroscopic techniques. Applied Spectroscopy Reviews, 2017, 52, 850-867.	6.7	11
88	Molecular basis of structural make-up of feeds in relation to nutrient absorption in ruminants, revealed with advanced molecular spectroscopy: A review on techniques and models. Applied Spectroscopy Reviews, 2017, 52, 653-673.	6.7	6
89	Investigating Molecular Structures of Bio-Fuel and Bio-Oil Seeds as Predictors To Estimate Protein Bioavailability for Ruminants by Advanced Nondestructive Vibrational Molecular Spectroscopy. Journal of Agricultural and Food Chemistry, 2017, 65, 9147-9157.	5.2	8
90	Physiochemical Characteristics and Molecular Structures for Digestible Carbohydrates of Silages. Journal of Agricultural and Food Chemistry, 2017, 65, 8979-8991.	5.2	16

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91	CHEMOTYPING USING SYNCHROTRON MID-INFRARED AND X-RAY SPECTROSCOPY TO IMPROVE AGRICULTURAL PRODUCTION. Canadian Journal of Plant Science, 2017, , .	0.9	3
92	Molecular Structure of Feeds in Relation to Nutrient Utilization and Availability in Animals: A Novel Approach. Engineering, 2017, 3, 726-730.	6.7	6
93	Nutritional and Metabolic Characteristics of Brassica carinata Co-products from Biofuel Processing in Dairy Cows. Journal of Agricultural and Food Chemistry, 2017, 65, 5994-6001.	5.2	20
94	A novel approach to determine synchronization index of lactating dairy cow diets with minimal sensitivity to random variations. Animal Feed Science and Technology, 2017, 225, 143-156.	2.2	1
95	On a molecular basis pelleting-induced changes on carbohydrate structure of co-products from bio-oil production revealed with vibrational molecular spectroscopy plus chemometrics: Sensitivity and response to conditioning temperature and time. Biomedical Spectroscopy and Imaging, 2017, 5, 359-371.	1.2	0
96	The Use of Gene Modification and Advanced Molecular Structure Analyses towards Improving Alfalfa Forage. International Journal of Molecular Sciences, 2017, 18, 298.	4.1	43
97	Gene-Transformation-Induced Changes in Chemical Functional Group Features and Molecular Structure Conformation in Alfalfa Plants Co-Expressing Lc-bHLH and C1-MYB Transcriptive Flavanoid Regulatory Genes: Effects of Single-Gene and Two-Gene Insertion. International Journal of Molecular Sciences, 2017, 18, 664.	4.1	6
98	The Occurrence, Biosynthesis, and Molecular Structure of Proanthocyanidins and Their Effects on Legume Forage Protein Precipitation, Digestion and Absorption in the Ruminant Digestive Tract. International Journal of Molecular Sciences, 2017, 18, 1105.	4.1	46
99	Structural changes on a molecular basis of canola meal by conditioning temperature and time during pelleting process in relation to physiochemical (energy and protein) properties relevant to ruminants. PLoS ONE, 2017, 12, e0170173.	2.5	6
100	Carbohydrate and lipid spectroscopic molecular structures of different alfalfa hay and their relationship with nutrient availability in ruminants. Asian-Australasian Journal of Animal Sciences, 2017, 30, 1575-1589.	2.4	12
101	Microprobing Structural Architecture Using Mid-Infrared Vibrational Molecular Spectroscopy. , 2016, , .		1
102	Gene-Silencing-Induced Changes in Carbohydrate Conformation in Relation to Bioenergy Value and Carbohydrate Subfractions in Modeled Plant (Medicago sativa) with Down-Regulation of HB12 and TT8 Transcription Factors. International Journal of Molecular Sciences, 2016, 17, 720.	4.1	13
103	The Role of Proanthocyanidins Complex in Structure and Nutrition Interaction in Alfalfa Forage. International Journal of Molecular Sciences, 2016, 17, 793.	4.1	22
104	Univariate and multiâ€variate comparisons of protein and carbohydrate molecular structural conformations and their associations with nutritive factors in typical byâ€products. Journal of the Science of Food and Agriculture, 2016, 96, 4736-4748.	3.5	7
105	A nutritional evaluation of common barley varieties grown for silage by beef and dairy producers in western Canada. Canadian Journal of Animal Science, 2016, 96, 598-608.	1.5	27
106	Association of Bio-energy Processing-Induced Protein Molecular Structure Changes with CNCPS-Based Protein Degradation and Digestion of Co-products in Dairy Cows. Journal of Agricultural and Food Chemistry, 2016, 64, 4086-4094.	5.2	16
107	Using vibrational infrared biomolecular spectroscopy to detect heat-induced changes of molecular structure in relation to nutrient availability of prairie whole oat grains on a molecular basis. Journal of Animal Science and Biotechnology, 2016, 7, 52.	5.3	14
108	Structural and nutritional characterization of macromolecular complexes in new bioenergy feedstock by infrared radiation with advanced molecular spectroscopy and spectral chemometrics. Applied Spectroscopy Reviews, 2016, 51, 822-838.	6.7	9

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109	Using non-invasive molecular spectroscopic techniques to detect unique aspects of protein Amide functional groups and chemical properties of modeled forage from different sourced-origins. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 156, 151-154.	3.9	4
110	Investigation of structure interaction to nutrient properties and utilization in co-products after pellet processing at various conditions using advanced molecular spectroscopy. Applied Spectroscopy Reviews, 2016, 51, 451-465.	6.7	4
111	Association of protein structure, protein and carbohydrate subfractions with bioenergy profiles and biodegradation functions in modeled forage. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 157, 265-270.	3.9	2
112	Recent Research and Progress in Food, Feed and Nutrition with Advanced Synchrotron-based SR-IMS and DRIFT Molecular Spectroscopy. Critical Reviews in Food Science and Nutrition, 2016, 56, 910-918.	10.3	17
113	Vibrational spectroscopic investigation of heat-induced changes in functional groups related to protein structural conformation in camelina seeds and their relationship to digestion in dairy cows. Animal Production Science, 2015, 55, 201.	1.3	22
114	Combining vibrational biomolecular spectroscopy with chemometric techniques for the study of response and sensitivity of molecular structures/functional groups mainly related to lipid biopolymer to various processing applications. Analytical and Bioanalytical Chemistry, 2015, 407, 7245-7253.	3.7	6
115	Transformation with TT8 and HB12 RNAi Constructs in Model Forage (Medicago) Tj ETQq1 1 0.784314 rgBT /Overlo Livestock Systems. Journal of Agricultural and Food Chemistry, 2015, 63, 9590-9600.	5.2	31
116	Effect of Heating Method on Alteration of Protein Molecular Structure in Flaxseed: Relationship with Changes in Protein Subfraction Profile and Digestion in Dairy Cows. Journal of Agricultural and Food Chemistry, 2015, 63, 1057-1066.	5.2	43
117	Truly Absorbed Microbial Protein Synthesis, Rumen Bypass Protein, Endogenous Protein, and Total Metabolizable Protein from Starchy and Protein-Rich Raw Materials: Model Comparison and Predictions. Journal of Agricultural and Food Chemistry, 2015, 63, 6518-6524.	5.2	2
118	Magnitude Differences in Bioactive Compounds, Chemical Functional Groups, Fatty Acid Profiles, Nutrient Degradation and Digestion, Molecular Structure, and Metabolic Characteristics of Protein in Newly Developed Yellow-Seeded and Black-Seeded Canola Lines. Journal of Agricultural and Food Chemistry, 2015, 63, 5476-5484.	5.2	4
119	Magnitude Differences in Agronomic, Chemical, Nutritional, and Structural Features among Different Varieties of Forage Corn Grown on Dry Land and Irrigated Land. Journal of Agricultural and Food Chemistry, 2015, 63, 2383-2391.	5.2	6
120	Effects of conditioning temperature and time during the pelleting process on feed molecular structure, pellet durability index, and metabolic features of co-products from bio-oil processing in dairy cows. Journal of Dairy Science, 2015, 98, 4869-4881.	3.4	18
121	Effects of canola meal pellet conditioning temperature and time on ruminal and intestinal digestion, hourly effective degradation ratio, and potential nitrogen to energy synchronization in dairy cows. Journal of Dairy Science, 2015, 98, 8836-8845.	3.4	22
122	Molecular basis of processing-induced changes in protein structure in relation to intestinal digestion in yellow and green type pea (Pisum sativum L.): A molecular spectroscopic analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 151, 980-988.	3.9	24
123	Nutritive value of maize silage in relation to dairy cow performance and milk quality. Journal of the Science of Food and Agriculture, 2015, 95, 238-252.	3.5	138
124	Detect changes in lipid-related structure of brown- and yellow-seeded Brassica Carinata seed during rumen fermentation in relation to basic chemical profile using ATR-FT/IR molecular spectroscopy with chemometrics. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 133, 811-817.	3.9	9
125	Molecular spectroscopic investigation on fractionation-induced changes on biomacromolecule of co-products from bioethanol processing to explore protein metabolism in ruminants. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 122, 591-597.	3.9	6
126	Common Prairie feeds with different soluble and insoluble fractions used for CPM diet formulation in dairy cattle: Impact of carbohydrateâ€“protein matrix structure on protein and other primary nutrient digestion. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 121, 14-22.	3.9	8

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127	Characterizing the molecular structure features of newly developed hulless barley cultivars with altered carbohydrate traits (Hordeum vulgare L.) by globar-sourced infrared spectroscopy in relation to nutrient utilization and availability. Journal of Cereal Science, 2014, 60, 48-59.	3.7	27
128	Rumen degradation, intestinal and total digestion characteristics and metabolizable protein supply of carinata meal (a non-conventional feed resource) in comparison with canola meal. Animal Feed Science and Technology, 2014, 191, 106-110.	2.2	22
129	Non-destructive analysis of the conformational differences among feedstock sources and their corresponding co-products from bioethanol production with molecular spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 118, 407-421.	3.9	13
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