

## List of publications

Status as of 16 January, 2026

The publications are categorized by the following links and sorted by year and alphabetically by author within year. The doi numbers are linked to the articles at the homepages of the respective journals.

- Original papers published in peer-reviewed scientific journals
- Habilitation/doctoral thesis
- Contributions to scientific meetings
- Other releases

### ***Original papers published in peer-reviewed scientific journals***

#### 2026

- 46) Klötzer R.L., H. Philippi, W. Siegert, and M. Rodehutscord. 2026. Amino acid, energy, and phosphorus digestibility of a meal from dehulled and ethanol-extracted rapeseed in broiler chickens. *British Poultry Science*, online available, doi 10.1080/00071668.2025.2604609
- 45) Omotoso A., E. Werner, N. Hautkapp, M. Rodehutscord, and W. Siegert. 2026. Accessing the impact of harvest weights of the *Tenebrio molitor* on amino acid digestibility and metabolizable energy in cecectomized laying hens. *Journal of the Science of Food and Agriculture* 106: 665–674, doi 10.1002/jsfa.70196
- 44) Rubio-Cervantes I., S. Wolfrum, W. Siegert, M. Rodehutscord, and A. Camarinha-Silva. 2026. Microbiota responses to feed particle size, calcium concentration, and phytase supplementation in broiler chickens. *Poultry Science* 105: 106209, doi 10.1016/j.psj.2025.106209

#### 2025

- 43) Kaewtapee C., T. Wichaiwong, W. Siegert, and R. Mosenthin. 2025. Amino acid digestibility of black soldier fly larvae reared with various substrates in caeectomised laying hens. *Italian Journal of Animal Science* 24: 1189–1198, doi: 10.1080/1828051X.2025.2505205
- 42) Li C.M., D. Yau, W. Siegert, and Á. Kenéz. 2025. Effects of dietary black soldier fly larvae meal inclusion on the growth performance and intestinal health markers of silkie crossbreed chicken. *Journal of Insects as Food and Feed* 11: 2311–2319, doi 10.1163/23524588-bja10206

- 41) Siegert W., A. Omotoso, P. Hofmann, and M. Rodehutscord. 2025. Relevance of nonessential amino acids in low crude protein diets for broiler chickens. *Nutrition Research Reviews* 38: 961–972, doi 10.1017/S0954422425100176
- 40) Wolfrum S., W. Siegert, I. Rubio-Cervantes, D. Feuerstein, A. Camarinha-Silva, and M. Rodehutscord. Effects of feed particle size, calcium concentration, and phytase supplementation on InsP<sub>6</sub> degradation in broiler chickens fed pelleted diets. *British Poultry Science* 66: 245–255, doi 10.1080/00071668.2024.2412096
- 39) Wolfrum S., W. Siegert, I. Rubio-Cervantes, T.M. Liebhold, D. Feuerstein, A. Camarinha-Silva, and M. Rodehutscord. Interactions between dietary phytate concentration and phytase level on phytate degradation and amino acid digestibility in broiler chickens. *Poultry Science* 104: 105468, doi 10.1016/j.psj.2025.105468

## 2024

- 38) Ibrahim A., Á. Kenéz, J. Pfannstiel, I. Klaiber, M. Rodehutscord, and W. Siegert. 2024. Responses of the blood acid base balance and blood plasma metabolomics of broiler chickens after change to diets with high free amino acid levels. *Poultry Science* 103: 103956, doi 10.1016/j.psj.2024.103956
- 37) Ibrahim A., Á. Kenéz, M. Rodehutscord, and W. Siegert. 2024. The influence of substituting dietary peptide-bound with free amino acids on nitrogen metabolism and acid-base balance of broiler chickens depends on asparagine and glutamine supply. *British Journal of Nutrition* 131: 41–53, doi 10.1017/S0007114523001617
- 36) Ibrahim A., M. Rodehutscord, and W. Siegert. 2024. Investigation on adaptations of broiler chickens to high dietary free amino acid levels in nitrogen utilisation and plasma amino acid concentrations. *British Poultry Science* 65: 342–351, doi 10.1080/00071668.2024.2315079
- 35) Quinger F., J. Kern, A. Bosse, J. Seifert, M. Rodehutscord, and W. Siegert. 2024. Effects of carriers for feed oils on performance, utilization of nutrients and energy, and gut microbiota in broiler chickens. *Poultry Science* 103: 103803, doi 10.1016/j.psj.2024.103803

## 2023

- 34) Ahmadi H., M. Rodehutscord, and W. Siegert. 2023. Bi-objective optimization of nutrient intake and performance of broiler chickens using Gaussian process regression and genetic algorithm. *Frontiers of Animal Science* 4: 1042725, doi 10.3389/fanim.2023.1042725
- 33) Böswald L.F., J. Wenderlein, W. Siegert, R.K. Straubinger, and E. Kienzle. 2023. True mineral digestibility in C57BL6/J mice. *Plos One* 18: e0290145, doi 10.1371/journal.pone.0290145
- 32) Kaewtapee C., W. Siegert, C. Bunchasak, and S. Chungopast. 2023. Amino acid digestibility of insect meals and effects on key bacterial groups in excreta of caecectomised laying hens. *Archives of Animal Nutrition* 77: 261–274, doi 10.1080/1745039X.2023.2219178
- 31) Siegert W., S. Kuenz, W. Windisch, and M. Rodehutscord. 2023. Amino acid digestibility and metabolizable energy of soybean meal of different origins in cecectomized laying hens. *Poultry Science* 102: 102580, doi 10.1016/j.psj.2023.102580

- 30) Siegert W., V. Sommerfeld, and M. Rodehutscord. 2023. Research note: Influence of monocalcium phosphate and phytase in the diet on phytate degradation in cecectomized laying hens. *Poultry Science* 102: 102470, doi 10.1016/j.psj.2022.102470

#### 2022

- 29) Siegert W., A. Ibrahim, W. Link, G. Lux, K. Schmidtke, J. Hartung, N. Nautscher, and M. Rodehutscord. 2022. Amino acid digestibility and metabolisable energy of spring and winter faba beans grown on two sites and effects of dehulling in caecectomised laying hens. *Journal of the Science of Food and Agriculture* 102: 920–930, doi 10.1002/jsfa.11424
- 28) Siegert W., T. Zuber, and M. Rodehutscord. 2022. Variability and prediction of metabolisable energy of wheat, triticale, and rye in caecectomised laying hens. *European Poultry Science* 84, doi 10.1399/eps.2022.354

#### 2021

- 27) Krieg J., D. Borda-Molina, W. Siegert, V. Sommerfeld, Y.P. Chi, H.R. Taheri, D. Feuerstein, A. Camarinha-Silva, and M. Rodehutscord. 2021. Effects of calcium level and source, formic acid, and phytase on phytate degradation and the microbiota in the digestive tract of broiler chickens. *Animal Microbiome* 3: 23, doi 10.1186/s42523-021-00083-7
- 26) Künzel S., D. Borda-Molina, T. Zuber, J. Hartung, W. Siegert, D. Feuerstein, A. Camarinha-Silva, and M. Rodehutscord. 2021. Relative phytase efficacy values as affected by response trait including ileal microbiota composition. *Poultry Science* 100: 101133, doi 10.1016/j.psj.2021.101133
- 25) Siegert W., J. Krieg, V. Sommerfeld, D. Borda-Molina, D. Feuerstein, A. Camarinha-Silva, and M. Rodehutscord. 2021. Phytase supplementation effects on amino acid digestibility in broiler chickens are influenced by dietary calcium concentrations but not by acid-binding capacity. *Current Developments in Nutrition* 5: nzab103, doi 10.1093/cdn/nzab103
- 24) Siegert W., P. Hofmann, and M. Rodehutscord. 2021. Drying at low temperatures on composition of nitrogenous compounds and inositol phosphates in excreta of broiler chickens and caecectomised laying hens. *Animal Science Journal* 92: e13484, doi 10.1111/asj.13484
- 23) Wild K., W. Siegert, W. Windisch, K.-H. Südekum, and M. Rodehutscord. Meta-analysis-based estimates of efficiency of calcium utilisation by ruminants. *Animal* 15: 100315, doi 10.1016/j.animal.2021.100315

#### 2020

- 22) Hofmann P., W. Siegert, H. Ahmadi, J. Krieg, M. Novotny, V.D. Naranjo, and M. Rodehutscord. 2020. Interactive effects of glycine equivalent with cysteine and choline on growth performance, characteristics of nitrogen excretion, and plasma metabolites of broiler chickens using neural networks optimized by genetic algorithms. *Animals* 10: 1392, doi 10.3390/ani10081392
- 21) Hofmann P., W. Siegert, V.D. Naranjo, and M. Rodehutscord. 2020. Effects of supplemented nonessential amino acids and non-protein nitrogen on growth and nitrogen excretion characteristics of broiler chickens fed diets with very low crude protein concentrations. *Poultry Science* 99: 6848–6858, doi 10.1016/j.psj.2020.09.003

- 20) Krieg J., W. Siegert, D. Berghaus, J. Bock, D. Feuerstein, and M. Rodehutscord. 2020. Phytase supplementation effects on amino acid digestibility depend on the protein source in the diet but are not related to InsP<sub>6</sub> degradation in broiler chickens. Poultry Science 99: 3251–3265, doi 10.1016/j.psj.2020.03.010
- 19) Rosenfelder-Kuon P., J. Krieg, M. Eklund, N. Sauer, H.K. Spindler, E.J.P. Strang, W. Siegert, M. Rodehutscord, H. Schenkel, and R. Mosenthin. 2020. Evaluation of different approaches for predicting precaecal crude protein and amino acid digestibility of cereal grains in growing pigs. Journal of Animal Physiology and Animal Nutrition 104: 965–976, doi 10.1111/jpn.13320
- 18) Rosenfelder-Kuon P., W. Siegert, and M. Rodehutscord. 2020. Effect of microbial phytase supplementation on P digestibility in pigs: a meta-analysis. Archives of Animal Nutrition 74: 1–18, doi 10.1080/1745039X.2019.1687249
- 17) Siegert W., and M. Rodehutscord. 2020. Precaecal crude protein and amino acid digestibility of guar meal in broiler chickens. European Poultry Science 84, doi 10.1399/eps.2020.297

## 2019

- 16) Borda-Molina D., T. Zuber, W. Siegert, A. Camarinha-Silva, D. Feuerstein, and M. Rodehutscord. 2019. Effects of protease and phytase supplements on small intestinal microbiota and amino acid digestibility in broiler chickens. Poultry Science 98: 2906–2918, doi 10.3382/ps/pez038
- 15) Hofmann P., W. Siegert, Á. Kenéz, V.D. Naranjo, and M. Rodehutscord. 2019. Effect of very low crude protein and varying glycine equivalent concentrations in the diet on growth performance, excreta characteristics and blood metabolome of broiler chickens. Journal of Nutrition 149: 1122–1132, doi 10.1093/jn/nxz022
- 14) Siegert W., and M. Rodehutscord. 2019. The relevance of glycine and serine in poultry nutrition: A review. British Poultry Science 60: 579–588, doi 10.1080/00071668.2019.1622081
- 13) Siegert W., C. Ganzer, H. Kluth, and M. Rodehutscord. 2019. Effect of amino acid deficiency on precaecal amino acid digestibility in broiler chickens. Journal of Animal Physiology and Animal Nutrition 103: 723–737, doi 10.1111/JPN.13066
- 12) Siegert W., T. Zuber, V. Sommerfeld, J. Krieg, D. Feuerstein, U. Kurrle, and M. Rodehutscord. 2019. Prececal amino acid digestibility and phytate degradation in broiler chickens when using different oilseed meals, phytase and protease supplements in the feed. Poultry Science 98: 5700–5713, doi 10.3382/ps/pez355
- 11) Zuber, T., W. Siegert, H. Salehi, F. Hummel, and M. Rodehutscord. 2019. Variability of amino acid digestibility of lupin and pea grains in caeectomised laying hens. British Poultry Science 60: 299–240, doi 10.1080/00071668.2018.1556389

## 2018

- 10) Siegert W., C. Ganzer, H. Kluth, and M. Rodehutscord. 2018. Effect of particle size distribution of maize and soybean meal on the precaecal amino acid digestibility of broiler chickens. British Poultry Science 59: 68–75, doi 10.1080/00071668.2017.1380295

- 9) Siegert W., C. Ganzer, H. Kluth, and M. Rodehutscord. 2018. Influence of feed provisioning prior to digesta sampling on the prececal amino acid digestibility in broiler chickens. Archives of Animal Nutrition 72: 190–204, doi 10.1080/1745039X.2018.1446810

#### 2017

- 8) Ganzer C., W. Siegert, H. Kluth, J. Bennewitz, and M. Rodehutscord. 2017. Prececal amino acid digestibility of soybean cake in fast- and slow-growing broiler chickens. Poultry Science 96: 2804–2810, doi 10.3382/ps/pex090
- 7) Rodehutscord M., O. Adeola, R. Angel, P. Bikker, E. Delezie, W.A. Dozier III, M. Umar Faruk, M. Francesch, C. Kwakernaak, A. Narcy, C.M. Nyachoti, O.A. Olukosi, A. Preynat, B. Renouf, A. Saiz del Barrio, K. Schedle, W. Siegert, S. Steinfeldt, M.M. van Krimpen, S.M. Waititu, and M. Witzig. 2017. Results of an international phosphorus digestibility ring test with broiler chickens. Poultry Science 96: 1679–1687, doi 10.3382/ps/pew426
- 6) Siegert W., J. Boguhn, H.P. Maurer, J. Weiss, and M. Rodehutscord. 2017. Effect of nitrogen fertilization on amino acid digestibility of different triticales genotypes in caecectomized laying hens. Journal of the Science of Food and Agriculture 97: 144–150, doi 10.1002/jsfa.7701

#### 2016

- 5) Rodehutscord M., C. Rückert, H.P. Maurer, H. Schenkel, W. Schipprack, M. Schollenberger, M. Laux, M. Eklund, W. Siegert, and R. Mosenthin. 2016. Variation in chemical and physical characteristics of cereal grains from different genotypes. Archives of Animal Nutrition 70: 87–107, doi 10.1080/1745039X.2015.1133111
- 4) Siegert W., K.J. Wild, M. Schollenberger, A. Helmbrecht, and M. Rodehutscord. 2016. Effect of glycine supplementation in low protein diets with amino acids from soy protein isolate or free amino acids on broiler growth and nitrogen utilisation. British Poultry Science 57: 424–434, doi 10.1080/00071668.2016.1163523
- 3) Zuber T., H.P. Maurer, J. Möhring, N. Nautscher, W. Siegert, P. Rosenfelder, and M. Rodehutscord. 2016. Variability in amino acid digestibility of triticales grain from diverse genotypes as studied in cecectomized laying hens. Poultry Science 95: 2861–2870, doi 10.3382/ps/pew174

#### 2015

- 2) Siegert W., H. Ahmadi, A. Helmbrecht, and M. Rodehutscord. 2015. A quantitative study of the interactive effects of glycine and serine with threonine and choline on growth performance in broilers. Poultry Science 94: 1557–1568, doi 10.3382/ps/pev109
- 1) Siegert W., H. Ahmadi, and M. Rodehutscord. 2015. Meta-analysis of the influence of dietary glycine and serine, with consideration of methionine and cysteine, on growth and feed conversion of broilers. Poultry Science 94: 1853–1863, doi 10.3382/ps/pev109

### ***Habilitation and doctoral thesis***

Siegert W. 2022. Relevance of amino acid digestibility for the protein utilization efficiency in poultry. Habilitation thesis University of Hohenheim <http://opus.uni-hohenheim.de/volltexte/2022/2054/>

Siegert W. 2016. Factors influencing the response of broiler chicken to glycine supplements in low crude protein diets. PhD Thesis University of Hohenheim, doi 10.13140/RG.2.2.15869.05606

## ***Contributions to scientific meetings and conferences***

### **Invited Talks**

- 19) Siegert W. 2025. Bedeutung einzelner nichtessentieller Aminosäuren beim Geflügel. In: Zeyner A., and H. Kluth (Eds.): 16. Tagung Schweine- und Geflügelernährung, 14 to 16 November 2025, Lutherstadt Wittenberg, Germany, 17–23
- 18) Siegert W. 2025. Reducing nitrogen emissions through precision nitrogen nutrition: what we know so far. 2025 PSA Pacific Rim Scientific Conference, 13–16 October 2025, Macao, China
- 17) Siegert W. 2025. Invited plenary talk: Key points for low protein nutrition of broilers to obtain efficient production and gut health. 7<sup>th</sup> International Poultry Meat Congress, 16 to 20 April, Antalya, Turkey.
- 16) Siegert W. 2025. Herausforderungen einer zeitgemäßen Proteinversorgung beim Geflügel. 23. BOKU-Symposium Tierernährung „Zukunft der Proteinversorgung in der Tierernährung“, 27 February 2025, Vienna, Austria, 16–20
- 15) Siegert W., and A. Omotoso. 2024. Relevance of ‘non-essential’ amino acids in low crude protein diets for broiler chickens. In: Poultry Beyond 2030 – Seventh International Broiler Nutritionists’ Conference, 16 to 20 September 2024, Queenstown, New Zealand
- 14) Siegert W. 2023. Bedeutung der Aminosäurenverdaulichkeit für die Proteinnutzungseffizienz beim Geflügel. In: Zeyner A., and H. Kluth (Eds.): 16. Tagung Schweine- und Geflügelernährung, 14 to 16 November 2023, Lutherstadt Wittenberg, Germany, 10–16
- 13) Siegert W. 2023. Sustainability and optimal nitrogen nutrition. Invited plenary lecture at the 23<sup>rd</sup> European Symposium on Poultry Nutrition, 21–24 June 2023, Rimini, Italy
- 12) Siegert W. 2022. Feeding insects – a contribution to more sustainable farm animal nutrition? Hong Kong Black Soldier Fly International Virtual Conference 2022: From basic science to applications. 15 and 16 September 2022
- 11) Rodehutsord M, and W. Siegert. 2021. Energy sources in animal feeding. Composition and nutritive value of cereals produced in Europe. XXXVI FEDNA Symposium, 1–2 December 2021, Madrid, Spain
- 10) Siegert W., P. Hofmann, M. Rodehutsord. 2020. Potentiale der Rohproteinabsenkung beim Geflügel. 98. Fachgespräch über Geflügelkrankheiten der DVG Fachgruppe Geflügel und Deutsche Gruppe der WVPA, 13 November 2020, Onlinetagung, 41–47
- 9) Siegert W., and M. Rodehutsord. 2019. Enzyme supplements and amino acid digestibility in poultry and pigs. In: Zeyner A., and H. Kluth (Eds.): 15. Tagung Schweine- und Geflügelernährung, 19 to 21 November 2019, Lutherstadt Wittenberg, Germany, 41–49

- 8) Siegert W., and M. Rodehutscord. 2019. Factors on phytate degradation and phytase efficacy in broiler chickens. Invited plenary lecture at the 37<sup>th</sup> Scientific Day of the South African Branch of the World's Poultry Science Association, 30 October 2019, Pretoria, South Africa
- 7) Siegert W., and M. Rodehutscord. 2019. The role of glycine and serine in poultry nutrition. Invited plenary lecture at the 37<sup>th</sup> Scientific Day of the South African Branch of the World's Poultry Science Association, 30 October 2019, Pretoria, South Africa
- 6) Siegert W., and M. Rodehutscord. 2018. Non-essential amino acids – the forgotten nutrients? Invited plenary lecture at the 15<sup>th</sup> European Poultry Conference, 17 to 20 September 2018, Dubrovnik, Croatia, 52–62
- 5) Rodehutscord, M., and W. Siegert. 2018. Role of glycine and serine on poultry production and efficiency in low protein diets. Invited plenary lecture at New Zealand Poultry Industry Conference, 2 to 3 October 2018, New Plymouth, New Zealand, 18–27
- 4) Siegert W., M. Rodehutscord. 2017. Invited plenary lecture: Relevance of glycine and other nonessential amino acids in poultry and pigs. In: Zeyner A., H. Kluth, M. Bulang, M. Bochnia, and M. Bachmann (Eds.): 14. Tagung Schweine- und Geflügelernährung, 21 to 23 November 2017, Lutherstadt Wittenberg, Germany, 37–44
- 3) Rodehutscord M., and W. Siegert. 2017. Optimizing protein and amino acid nutrition for poultry. 16<sup>th</sup> BOKU-Symposium Tierernährung, 27 April 2017, Vienna, Austria, 4–8
- 2) Siegert W., and M. Rodehutscord. 2015. Relevance of glycine in low protein broiler feeds. Invited plenary lecture at the 20<sup>th</sup> European Symposium on Poultry Nutrition, 24 to 27 August 2015, Prague, Czech Republic, 18–26
- 1) Rodehutscord M., and W. Siegert. 2012. Einsatz von Aminosäuren in der Tierernährung. Invited talk at 24. Hülseberger Gespräche: Zusatzstoffe in der Ernährung, 6 to 8 June 2012, Lübeck, Germany, 108–113

## **Other presentations**

### 2025

- 46) Böswald L.F., B. Popper, W. Siegert, M.M. Santo, and A. Zeyner. 2025. Effect of feeding a purified diet on digestibility and gastrointestinal parameters in C57BL/6J mice. 29th Congress of the European Society of Veterinary & Comparative Nutrition ESVCN, 4 to 6 September 2025, Leipzig, Germany, 149
- 45) Dou W., T.M. Lange, and W. Siegert. 2025. Linear mixed model and random forest algorithm outperformed conventional estimation method in predicting nitrogen utilization efficiency of broiler chickens. 8th EAAP international Symposium on Energy and Protein Metabolism and Nutrition, 15 to 18 September 2025, Rostock-Warnemünde, Germany, 199
- 44) Omotoso A., E. Werner, N. Hautkapp, M. Rodehutscord, and W. Siegert. 2025. Impacts of harvest weights of *Tenebrio molitor* on amino acid digestibility and metabolisable energy in caecectomised laying hens. Proceedings of the Society of Nutrition Physiology 34, 70
- 43) Philippi H., W. Siegert, J. van Milgen, Y. Mercier, and M. Rodehutscord. 2025. Impact of glycine and serine supplementation on growth and nitrogen metabolism in broiler chickens

- with varying betaine supply. 8th EAAP international Symposium on Energy and Protein Metabolism and Nutrition, 15 to 18 September 2025, Rostock-Warnemünde, Germany, 68
- 42) Preißinger W., A. Terbaum, S. Scherb, and W. Siegert. 2025. Weiße Lupinen (*Lupinus albus*) mit hohen Gehalten an Chinolizidinalkaloiden in der Fütterung von Ferkeln – Auswirkungen auf Futteraufnahme und Leistung. 23. BOKU-Symposium Tierernährung. 27 February 2025, Vienna, Austria, 88–90
- 41) Rehklaus F., A.O. Omotoso, L. Rathmann, P. Hofmann, and W. Siegert. 2025. Effect of black soldier fly larvae (*Hermetia illucens* L.) supplementation in addition to energy and crude protein reduced diets on growth performance in broiler chickens. In: Zeyner A., and H. Kluth (Eds.): 16. Tagung Schweine- und Geflügelernährung, 14 to 16 November 2025, Lutherstadt Wittenberg, Germany, 71–73
- 40) Siegert W., A. Sünder, S. Göppel, C. Lambertz, and G. Bellof. 2025. No different amino acid utilisation efficiency of fast- and slow-growing turkeys when fed organic diets reduced in crude protein up to day 28. 8th EAAP international Symposium on Energy and Protein Metabolism and Nutrition, 15 to 18 September 2025, Rostock-Warnemünde, Germany, 45

## 2024

- 39) Ahmadi H., V. Sommerfeld, W. Siegert, and M. Rodehutsord. 2024. Application of a machine learning approach to estimate optimal dietary Ca and P concentrations for egg performance in laying hens. Proceedings of the Society of Nutrition Physiology 33, 105
- 38) Ibrahim A., M. Rodehutsord, and W. Siegert. 2024. Adaption of broiler chickens to high dietary levels of free amino acids fed in exchange with peptide-bound amino acids. Proceedings of the Society of Nutrition Physiology 33, 66
- 37) Ibrahim A., M. Rodehutsord, and W. Siegert. 2024. Changes in the acid-base balance of broiler chickens after a substitution of peptide-bound with free amino acids in the diet. 16<sup>th</sup> European Poultry Conference, 24 to 28 June 2024, Valencia, Spain
- 36) Li C.M., D. Yau, W. Siegert, and Á. Kenéz. 2024. Effects of dietary black soldier fly larvae meal inclusion on the growth performance of silkie crossbreed chicken. Insects to Feed the World, 19 to 22 June 2024, Singapore.
- 35) Sassenberg D., T.M. Lange, W. Siegert. 2024. Meta-Analyse zur Bewertung und Optimierung der rechnerisch ermittelten Protein-Nutzungsseffizienz bei Masthühnern. In: 62. Jahrestagung der Bayerischen Arbeitsgemeinschaft Tierernährung e.V. „Digitale Technologien und intelligente Systeme in der Fütterung landwirtschaftlicher Nutztiere“, 10 October 2024, Freising-Weihenstephan, Germany, 201–205
- 34) Siegert W., A. Ibrahim, M. Novotny, P. Maziarka, Y. Rudolph, A. Kruse, R. Kohlus, and M. Rodehutsord. 2024. Influence of drying temperature and sodium hydroxide addition on amino acid digestibility of an alfalfa protein extract in caecectomised laying hens. Proceedings of the Society of Nutrition Physiology 33, 44
- 33) Wolfrum S., W. Siegert, D. Feuerstein, and M. Rodehutsord. 2024. Influence of dietary particle size, calcium, and phytase supplementation on gizzard pH, phytate degradation, and phosphorus digestibility in broiler chickens. Proceedings of the Society of Nutrition Physiology 33, 106



## 2023

- 32) Heyer C.M.E., D. de Frenne, N. Klein, W. Siegert, and M. Rodehutschord. 2023. Neutral detergent fibre concentration in different genotypes affects in vitro gas production for oat and rye grain, but not for barley grain. Proceedings of the Society of Nutrition Physiology 32, 45
- 31) Ibrahim A., M. Rodehutschord, and W. Siegert. 2023. Auswirkungen des Ersatzes von peptidgebundenen gegen freie Aminosäuren auf das Wachstum und den Stickstoff-Stoffwechsel bei Masthähnchen in Abhängigkeit von der Asparagin- und Glutamin-Versorgung. In: Zeyner A., and H. Kluth (Eds.): 16. Tagung Schweine- und Geflügelernährung, 14 to 16 November 2023, Lutherstadt Wittenberg, Germany, 137–139
- 30) Ibrahim A., Rodehutschord M., and W. Siegert. 2023. Effect of substituting peptide-bound with free amino acids in broiler feeding on acid-base balance depends on asparagine and glutamine supply. 23<sup>rd</sup> European Symposium on Poultry Nutrition, 21 to 24 June 2023, Rimini, Italy
- 29) Ibrahim A., M. Rodehutschord, and W. Siegert. 2023. Influence of substituting peptide-bound with free amino acids on growth and nitrogen metabolism of broiler chickens depending on the asparagine and glutamine supply. Proceedings of the Society of Nutrition Physiology 32, 25
- 28) Siegert W., J. Kern, A. Bosse, and M. Rodehutschord. 2023. Influence of oil carriers for feed oil on growth, crude fat digestibility and metabolisable energy in broiler chickens. Proceedings of the Society of Nutrition Physiology 32, 83
- 27) Wolfrum S., W. Siegert, D. Feuerstein, and M. Rodehutschord. 2023. Effects of phytase dosage and dietary phytate concentration on the precaecal phytate disappearance and phosphorus digestibility in broiler chickens. Proceedings of the Society of Nutrition Physiology 32, 93
- 26) Wolfrum S., W. Siegert, D. Feuerstein, and M. Rodehutschord. 2023. Effekte von Phytasedosierung und Phytatkonzentration im Futter auf das praecaecale Phytat-Verschwinden und die praecaecale Phosphor-Verdaulichkeit bei Masthähnchen. In: Zeyner A., and H. Kluth (Eds.): 16. Tagung Schweine- und Geflügelernährung, 14 to 16 November 2023, Lutherstadt Wittenberg, Germany, 151–153
- 25) Wolfrum S., W. Siegert, V. Sommerfeld, D. Feuerstein, and M. Rodehutschord. 2023. Influence of phytase dosage and dietary phytate concentration on precaecal phytate disappearance and amino acid digestibility in broilers. 23<sup>rd</sup> European Symposium on Poultry Nutrition, 21 to 24 June 2023, Rimini, Italy

## 2022

- 24) Ahmadi H., W. Siegert, and M. Rodehutschord. 2022. Estimating optimal amino acids intake of broiler chickens using Gaussian process regression and genetic algorithm. Proceedings of the Society of Nutrition Physiology 31, 106
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