

Publication list for Marianne Nissen Lund

Peer reviewed publications:

40 peer reviewed papers published in international journals.

Citations: 613, H-factor of 11 (Web of Science); 870, H-factor of 13 (Google Scholar), 2 "Editor's pick".

3 book chapters

29 conference proceedings

Peer-reviewed publications

40. Jongberg, S., **Lund, M.N.**, Pattison, D., Skibsted, L.H. & Davies, M.J. (2016) Competitive kinetics as a tool to determine rate constants for reduction of ferrylmyoglobin by food components. *Food Chem.*, accepted for publication.

39. Murmann, A.N., Andersen, P., Mauch, A. & **Lund, M.N.** (2016) Quantification of protein-derived thiols during atmosphere-controlled brewing in laboratory scale. *J. Am. Soc. Brew. Chem.*, accepted for publication.

38. Jongberg, S., Utrera, M., Morcuende, D., **Lund, M.N.**, Skibsted, L.H., Estevez, M. (2015) Influence of oxidation state of 4-methyl catechol and catechin on the oxidative stability of β -lactoglobulin. *J. Agric. Food Chem.*, 63, 8501-8509.

37. **Lund, M.N.**, Krämer, A., Andersen, M.L. (2015) Antioxidative mechanisms of sulfite and protein-derived thiols during early stages of metal induced oxidative reactions in beer. *J. Agric. Food Chem.*, 63, 8254-8261.

36. **Lund, M.N.**, Petersen, M.A., Andersen, M.L. & Lunde, C. (2015) Effect of protease treatment during mashing on protein-derived thiol content and flavor stability of beer during storage. *J. Am. Soc. Brew. Chem.*, 73(3), 287-295.

35. Gravador, R.S., Luciano, G., Jongberg, S., Bognanno, M., Scerra, M., Andersen, M.L., **Lund, M.N.** & Priolo, A. (2015) Dietary carob increases the intramuscular polyunsaturated fatty acids in lamb meat without compromising the oxidative stability. *Food Chem.*, 182, 27-34.

34. Jongberg, S., **Lund, M.N.** & Otte, J.A.H. (2015). Dissociation and reduction of covalent β -lactoglobulin-quinone adducts by dithiothreitol, tris(2-carboxyethyl)phosphine or sodium sulfite. *Anal. Biochem.*, 478, 40-48.

33. Jongberg, S., Terkelsen, L.S., Miklos, R. & **Lund, M.N.** (2015). Green tea extract impair emulsion properties by disturbing protein disulfide cross-linking. *Meat Sci.*, 100, 2-9.

32. Rysman, T., Jongberg, S., Van Royen, G., Van Weyenberg, S., De Smet, S. & **Lund, M.N.** (2014). Protein thiols undergo reversible and irreversible oxidation during chill storage of ground beef as detected by 4,4-dithiodipyridine. *J. Agric. Food Chem.*, 62, 12008-12014.

31. Jongberg, S., **Lund, M.N.**, Skibsted, L.H. & Davies, M.J. (2014). Competitive reduction of perferrylmyoglobin radicals by protein thiols and plant phenols. *J. Agric. Food Chem.*, 62, 11279-11288.

30. **Lund, M.N.**, Lametsch, R. & Sørensen, M.B. (2014). Increased protein-thiol solubilisation in sweet wort by addition of a protease during mashing. *J. Inst. Brew.*, 120, 467-473.

29. Hoff, S., **Lund, M.N.**, Petersen, M.A., Jespersen, B.M. & Andersen, M.L. (2014). Quality of pilsner malt and roasted malt during storage. *J. Inst. Brew.*, 120, 331-340.

28. Gravador, R.S., Jongberg, S., Andersen, M.L., Luciano, G., Priolo, A. & **Lund, M.N.** (2014). Dietary citrus pulp improves protein stability in lamb meat stored under aerobic conditions. *Meat Sci.* 97, 231-236.

27. Jongberg, S., Wen, J., Tørngren, M.A. & **Lund, M.N.** (2014). Effect of high-oxygen atmosphere packaging on oxidative stability and sensory quality of two chicken muscles during chill storage. *Food Packaging and Shelf-Life*, 1, 38-48.

26. de Almeida, N.E.C., **Lund, M.N.**, Andersen, M.L. & Cardoso, D.R. (2013). Beer thiol-containing compounds and redox stability: a kinetic study of 1-hydroxyethyl radical scavenging ability. *J. Agric. Food Chem.* 61, 9444-9452.

25. **Lund, M.N.**, Liang, R., Zhang, J.-P., Han, R.-M., Tian, Y.-X., Skovsgaard, T.F., Nielsen, J. & Skibsted, L.H. (2013). Emulsifier-phenol bioconjugates as antioxidants. Molecular descriptors based on density functional theory in quantitative structure-activity relationships. *Food Res. Int.* 54, 230-238.

24. Hoff, S., **Lund, M.N.**, Petersen, M.A., Frank, W. & Andersen, M.L. (2013). Storage stability of pasteurized non-filtered beer. *J. Inst. Brew.*, 119, 172-181.
23. Hoff, S., Larsen, F.L., Andersen, M.L. & **Lund, M.N.** (2013). Quantification of protein thiols using ThioGlo 1 fluorescent derivatives and HPLC separation. *Analyst*. 138(7), 2096-2103.
22. Hoff, S., Damgaard, J., Petersen, M.A., Jespersen, B.M., Andersen, M.L. & **Lund, M.N.** (2013). Influence of barley varieties on wort quality and performance. *J. Agric. Food Chem.* 61, 1968-1976.
21. Jongberg, S., Tørngren, M.A., Gunvig, A., Skibsted, L.H. & **Lund, M.N.** (2013). Effect of green tea or rosemary extract on protein oxidation in Bologna type sausages prepared from oxidatively stressed pork. *Meat Sci.* 93, 538-546.
20. **Lund, M.N.**, Hoff, S., Berner, T.S., Lametsch, R. & Andersen, M.L. (2012). Effect of pasteurization on the protein composition and oxidative stability of beer during storage. *J. Agric. Food Chem.*, 60, 12362-12370.
19. Jongberg, S., **Lund, M.N.**, Østdal, H. & Skibsted, L.H. (2012). Phenolic antioxidant scavenging of long-lived myosin radicals generated by hypervalent myoglobin. *J. Agric. Food Chem.* 60, 12020-12028.
18. Abrahamsson, V., Hoff, S., Nielsen, N.J., **Lund, M.N.**, Andersen, M.L. (2012). Determination of sulfite in beer based on fluorescent derivatives and liquid chromatographic separation. *J. Am. Soc. Brew. Chem.* 70(4), 296-302.
17. Hoff, S., **Lund, M.N.**, Petersen, M.A., Jespersen, B.P.M. & Andersen, M.L. (2012). Influence of malt roasting on the oxidative stability of sweet wort. *J. Agric. Food Chem.* 60, 5652-5659.
16. Jongberg, S., **Lund, M.N.**, Waterhouse, A.L. & Skibsted, L.H. (2011). 4-Methyl catechol inhibits protein oxidation in meat but not disulfide formation. *J. Agric. Food Chem.*, 59, 10329-10335.
15. Jongberg, S., Gislason, N.E., **Lund, M.N.**, Skibsted, L.H. & Waterhouse, A.L. (2011). Thiol-quinone adduct formation in myofibrillar proteins detected by LC-MS. *J. Agric. Food Chem.*, 59, 6900-6905.
14. Jongberg, S., Skov, S.H., Tørngren, M.A., Skibsted, L.H. & **Lund, M.N.** (2011). Effect of white grape extract and modified atmosphere packaging on lipid and protein oxidation in chill stored beef patties. *Food. Chem.*, 128, 276-283.
13. **Lund, M.N.** & Andersen, M.L. (2011). Detection of thiol groups in beer and their correlation with oxidative stability. *J. Am. Soc. Brew. Chem.* 69(3), 163-169.
12. **Lund, M.N.**, Heinonen, M., Baron, C.P. & Estevéz, M. (2011). Protein oxidation in muscle foods: A review. *Molecular Nutrition and Food Research*, 55(1), 83-95.
11. Jehle, D., **Lund, M.N.**, Øgdenal, L.H. & Andersen, M.L. (2011). Characterisation of a stable radical from dark roasted malt in wort and beer. *Food Chem.*, 125(2), 380-387.
10. Hunneche, C.S., **Lund, M.N.**, Skibsted, L.H. & Nielsen, J. (2008): Antioxidant Activity of a Combinatorial Library of Emulsifier-Antioxidant Bioconjugates. *J. Agric. Food Chem.*, 56, 9258-9268.
9. **Lund, M.N.**, Christensen, M., Fregil, L., Hviid, M.S. & Skibsted, L.H. (2008): Effect of High-Oxygen Atmosphere Packaging on Mechanical Properties of Single Muscle Fibers from Bovine and Porcine *longissimus dorsi*. *Eur. J. Food Res. Techn.*, 227, 1323-1328.
8. **Lund, M.N.**, Hviid, M.S., Claudi-Magnussen, C. & Skibsted, L.H. (2008): Effects of Dietary Soybean Oil on Lipid and Protein Oxidation in Pork Patties during Chill Storage. *Meat Sci.*, 79, 727-733.
7. Frederiksen, A.M., **Lund, M.N.**, Andersen, M.L. & Skibsted, L.H. (2008): Oxidation of Porcine Myosin by Hypervalent Myoglobin: The Role of Thiol Groups. *J. Agric. Food Chem.*, 56, 3297-3304.
6. **Lund, M.N.**, Luxford, C., Skibsted, L.H. & Davies, M.J. (2008): Oxidation of Myosin by Heme Proteins Generates Myosin Radicals and Protein Cross-links. *Biochem. J.*, 410, 565-574.
5. **Lund, M.N.**, Lametsch, R., Hviid, M.S., Jensen, O.N. & Skibsted, L.H. (2007): High-Oxygen Atmosphere Packaging Influences Protein Oxidation and Tenderness of Porcine *longissimus dorsi* during Chill Storage. *Meat Sci.*, 77, 295-303.
4. **Lund, M.N.**, Hviid, M.S. & Skibsted, L.H. (2007): The Combined Effect of Antioxidants and Modified Atmosphere Packaging on Protein and Lipid Oxidation in Beef Patties during Chill Storage. *Meat Sci.*, 76, 226-233.

3. Andersen, L.T., **Lund, M.N.**, Glyager, R., Jensen, S.B., Mortensen, G. & Skibsted, L.H. (2006): Light-induced Deterioration of Reduced-fat Cream Cheese. Relative Importance of Protein and Lipid Oxidation, *Milk Sci. Int.*, 61, 162-165.
2. **Lund, M.N.**, Olsen, K., Sørensen, J. & Skibsted, L.H. (2005): Kinetics and Mechanism of the Lactosylation of α -Lactalbumin, *J. Agric. Food Chem.*, 53, 2095-2102.
1. Carlsen, C.U., Kröger-Ohlsen, M.V., **Lund, M.N.**, Lund-Nielsen, T., Rønn, B. & Skibsted, L.H. (2002): Antioxidant Properties of Carnosine Re-evaluated in a Ferrylmyoglobin Model System and in Cooked Pork Patties, *J. Agric. Food Chem.*, 50, 7164-7168.

Peer-reviewed book chapters

3. Jongberg, S., **Lund, M.N.** & Skibsted, L.H. (2015) Protein oxidation in meat and meat products. Challenges for antioxidative protection. In: Food Security and Wellness. (Eds.) Barbosa-Canovas, G.V., Washington State University, WA.
2. Becker, E.M. & **Lametsch, M.L.** (2010) Kursusudvikling med fokus på dybdelæring, Chp 7, pp 65-82. In: Improving university science teaching and learning. (Eds.) Christiansen, F.V.; Sølberg, J.; Hansen, H.W., Department of Science Education, University of Copenhagen, Denmark.
1. **Lund, M.N.** & Baron, C.P. (2010): Protein Oxidation in Foods. In Chemical Deterioration and Physical Instability of Food and Beverages. (Eds) Skibsted, L.H., Risbo, J. & Andersen, M.L. Woodhead Publishing, Cambridge.

Peer-reviewed proceedings (underlined name is the presenting person)

29. Li, Y., Jongberg, S., Andersen, M.L., Davies, M.J. & **Lund, M.N.** (2015) Determination of rate constants between the quinone of 4-methyl catechol and thiol and amine compounds. Society for Free Radical Research Europe (SFRR-E) meeting, Stuttgart, Germany, 2-4/9-2015 (*conference abstract and poster presentation*).
28. **Krämer, A.C.**, **Lund, M.N.** & Davies, M.J. (2015) Role of oxidation and thermal unfolding in structural changes of β -lactoglobulin. Society for Free Radical Research Europe (SFRR-E) meeting, Stuttgart, Germany, 2-4/9-2015 (*conference abstract and poster presentation*).
27. **Murmann, A.N.**, Lunde, C. & **Lund, M.N.** (2015) Addition of proteases during mashing to increase antioxidative thiol-containing proteins in beer. 35th European Brewery Convention (EBC) congress, Porto, Portugal, 24-28/5-2015 (*conference abstract and poster presentation*).
26. **Lund, M.N.**, Sørensen, M.B. & Andersen, M.L. (2015) Protein thiols and sulfite: Competing or complementary antioxidants in beer? 35th European Brewery Convention (EBC) congress, Porto, Portugal, 24-28/5-2015 (*conference abstract and invited oral presentation*).
25. **Lund, M.N.** & Andersen, M.L. (2014) Thiols and sulfite: Competing or complementary antioxidants in beer? Society for Free Radical Biology & Medicine (SFRBM), Seattle, US, 18-23/11-2014 (*conference abstract and poster*).
24. **Andersen, M.L.** & **Lund, M.N.** (2014) Towards kinetic modelling of early oxidative reactions in beer. European Brewery Convention (EBC) Brewing Science Group, Wien, Austria, 10-11/9-2014 (*conference proceeding and oral presentation*).
23. Rysman, T., **Jongberg, S.**, Van Royen, G., Van Weyenberg, S., De Smet, S., **Lund, M.N.** (2014) Measurement of protein disulfide cross-linking in meat with 4,4'-dithiopyridine and SDS-page. 60th International Congress of Meat Science and Technology (ICoMST), Punta del Este, Uruguay, 17-22/8-2014 (*conference proceeding and poster*).
22. **Jongberg, S.**, Therkelsen, L.S., Miklos, R., **Lund, M.N.** (2014). Green tea extract alters the functional properties of meat emulsions by generation of protein cross-links. 60th International Congress of Meat Science and Technology (ICoMST), Punta del Este, Uruguay, 17-22/8-2014 (*conference proceeding and poster*).
21. **Lund, M.N.**, de Almeida, N.E.C., Cardoso, D.R., Sørensen, M.B., Andersen, M.L. (2014). What is the fate of 1-hydroxyethyl radicals in beer? Do thiol-containing proteins and peptides play an antioxidative role? American Society

of Brewing Chemists (ASBC) Annual Meeting, Chicago, IL, US, 4-6/6-2014 (*conference abstract and invited oral presentation*).

20. **Lund, M.N.** (2014). Protein oxidation in foods. 105th American Oil Chemists Society (AOCS) Annual Meeting, San Antonio, Texas, US, 4-7/5-2014 (*conference abstract and invited oral presentation*).

19. de Almeida, N.E.C, **Lund, M.N.**, Cardoso, D.R., Andersen, M.L. (2013). Radical scavenging ability of protein and peptide thiols in beer. IXth International Workshop on EPR in Biology and Medicine, Krakow, Poland, 7-10/10-2013 (*conference abstract and invited oral presentation*).

18. **Gravador, R.S**, Jongberg, S., Andersen, M.L., Luciano, G., Priolo, A. & **Lund, M.N.** (2013). A preliminary investigation on the effect of dietary citrus pulp on protein oxidation in lamb meat. 59th International Congress of Meat Science and Technology (ICoMST), Izmir, Turkey, 18-23/8-2013 (*conference proceeding and poster*).

17. **Lund, M.N.**, de Almeida, N.E.C., Cardoso, D.R. & Andersen, M.L. (2013). Radical scavenging ability of protein and peptide thiols in beer. 34th European Brewery Convention (EBC) congress, Luxembourg, 26-30/5-2013 (*conference abstract*).

16. **Hoff, S.**, **Lund, M.N.**, Jespersen, B.M. & Andersen, M.L. (2013). Protein-thiols in beer and throughout the brewing process. 34th European Brewery Convention (EBC) congress, Luxembourg, 26-30/5-2013 (*conference abstract and poster*).

15. **de Almeida, N.E.C.**, **Lund, M.N.**, Andersen, M.L. & Cardoso, D.R. (2013). Beer redox stability conferred by thiol-containing peptides and proteins: A kinetic study of 1-hydroxyethyl radical scavenging ability. American Society of Brewing Chemists (ASBC) Annual Meeting, Tuscon, Arizona, USA, 19-22/5-2013 (*conference abstract and invited oral presentation*).

14. **Jongberg, S.**, Tørngren, M.A., Nersting, L., Skibsted, L.H. & **Lund, M.N.** (2012). Antioxidative mechanisms against protein oxidation in Bologna type sausages added Green Tea or Rosemary. 16th World Congress of Food Science and Technology (IUFOST), Foz do Iguacu, Brasilien, 5-9/8-2012 (*conference abstract and poster*).

13. **Lund, M.N.**, Hoff, S., Lametsch, R. & Andersen, M.L. (2012). Thiol during production and storage of beer. World Brewing Congress (WBC), Portland, USA, 28/7-1/8-2012 (*conference abstract and invited oral presentation*).

12. **Hoff, S.**, **Lund, M.N.**, Andersen, M.L. (2012). Pasteurization and oxidative stability of beer. 10th Trends in Brewing, Ghent, Belgium, 1-5/4-2012 (*conference abstract and poster*).

11. **Jongberg, S.**, **Lund, M.N.**, Waterhouse, A.L. & Skibsted, L.H. (2011). Phenolic antioxidants inhibit protein oxidation in meat – but not disulfide formation. 57th International Congress of Meat Science and Technology (ICoMST), Ghent, Belgium, 7-12/8-2011 (*conference abstract and poster: best poster award*).

10. **Hoff, S.**, Petersen, J.D., Jespersen, B.M., **Lund, M.N.**, & Andersen, M.L. (2011). Influence of Hops and Barley Varieties on Thiol Levels and the Oxidative Stability of Wort. European Brewery Convention (EBC) congress, Glasgow, Scotland, 22-26/5-2011 (*conference abstract and poster*).

9. **Lund, M.N.** & Andersen, M.L. (2011). Detection of thiol groups in beer and their correlation with oxidative stability. European Brewery Convention (EBC) congress, Glasgow, Scotland, 22-26/5-2011 (*conference abstract and poster*).

8. **Jongberg, S.**, **Lund, M.N.**, Waterhouse, A.L. & Skibsted, L.H. (2010). Effect of thiol-quinone adduct formation on disulfide cross-link formation in beef added 4-methyl catechol and stored under oxygen. FOOD Denmark PhD congress, Copenhagen, 22-23/11 2010, (*conference abstract and poster*).

7. **Lund, M.N.**, Lametsch, R., Hviid, M.S. & Skibsted, L.H. (2009). Protein oxidation in meat during chill storage in high-oxygen atmospheres. 55th International Congress of Meat Science and Technology (ICoMST), Copenhagen, Denmark, 17-20/8-2009 (*conference proceeding and invited oral presentation*).

6. **Jongberg, S.**, Rasmussen, M, **Lund, M.N.**, Skibsted, L.H. (2009). Quantification of protein carbonyls in meat by DNPH-ELISA analysis. 55th International Congress of Meat Science and Technology (ICoMST), Copenhagen, Denmark, 17-20/8-2009 (*conference proceeding, poster, and invited oral presentation*).

5. **Lund, M.N.**, Lametsch, R., Hviid, M.S. & Skibsted, L.H. (2008). Post-harvest processes that influence myofibrillar protein degradation and meat quality. American Society for Animal Science (ASAS) Annual Meeting, Indianapolis, USA, 7-11/7-2008. *J. Animal Sci.*, 86 E-suppl 2/*J. Dairy Sci.* 91 E-suppl 1, P521 (*conference abstract and invited oral presentation*).
4. **Lund, M.N.**, Luxford, C., Skibsted, L.H. & Davies, M.J. (2007). Oxidation of Myosin by Heme Proteins Generates Myosin Radicals and Protein Cross-links. Society for Free Radical Biology & Medicine's 14th Annual Meeting, Washington DC, USA, *Free Rad. Biol. Med.*, 43 suppl 1, S107 (*conference abstract and poster*).
3. **Lund, M.N.**, Christensen, M., Lametsch, R., Fregil, L., Hviid, M.S. & Skibsted, L.H. (2007). High Oxygen Atmosphere Packaging Affects Meat Tenderness and Protein Oxidation. 53rd International Congress of Meat Science & Technology, Beijing, China, 5-9/8-2007 (*conference abstract and poster, provided me with the IMS prize*).
2. **Lund, M.N.**, Tørngren, M.A., Hviid, M.S. & Skibsted, L.H. (2005). Importance of Pre-treatment of Pork for Oxidative Stability during Frozen Storage, Food Science Congress (LMC congress), Kgs. Lyngby, Denmark, 9-10/3-2005 (*conference abstract, poster and invited oral presentation*).
1. **Lund, M.N.**, Andersen, L.T. & Skibsted, L.H. (2005). Riboflavin Photodegradation is Highly Dependent on Oxygen and Specific Wavelengths. Food Science Congress "From Molecule to Man" (LMC congress), Kgs. Lyngby, Denmark, 9-10/3-2005 (*conference abstract and poster*).

Non peer-reviewed publications

9 publications, including papers for trade journals, symposium abstracts, posters, and **invited oral presentations**.

Conference proceedings and posters or invited oral presentations, and papers for trade journals

9. Hoff, S., Jespersen, B.M., **Lund, M.N.** & Andersen, M.L. (2013). Protein-thioler og stabilitet af øl. *Dansk Kemi*, 94(9), 16-19 (*paper for a Danish trade journal*).
8. **Lund, M.N.** (2012). Thiols, proteins, and oxidative stability of beer. Beer seminar, University of Copenhagen, Frederiksberg, Denmark, 27/6-2012 (*invited oral presentation*).
7. **Lund, M.N.**, Jongberg, S. (2012). Protein oxidation in meat. Finalising project meeting, Norwegian University of Life Sciences (UMB), Ås, Norway 6/6-2012 (*invited oral presentation*).
6. Jongberg, S., **Lund, M.N.**, Tørngren, M. & Skibsted, L.H. (2010). Antioxidant protection by white grape extract and the effect of MA-packaging on protein oxidation in chill stored beef patties. LMC Protein Redox Network Symposium, Frederiksberg, Denmark, 18/6-2010 (*symposium abstract and poster*).
5. **Lund, M.N.**, Jehle, D., Øgøndal, L.H. & Andersen, M.L. (2010). Characterisation of a stable radical in dark beer. LMC Protein Redox Network Symposium, Frederiksberg, Denmark, 18/6-2010 (*symposium abstract and poster*).
4. **Lund, M.N.** (2010). Improvement of the oxidative stability of beer. Beer seminar, University of Copenhagen, Frederiksberg, Denmark, 4/2-2010 (*invited oral presentation*).
3. **Lund, M.N.**, Arneborg, N., Frank, W. & Andersen, M.L. (2008). Improvement of the oxidative stability of beer. *Scandinavian Brewers' Review*, 65(4), 28-30 (*paper for a Scandinavian trade journal*).
2. **Lund, M.N.** (2005). "Protein Oxidation in Meat, Control of Quality Deteriorations during Storage", Protein oxidation workshop, The Technical University of Denmark (DTU), Kgs. Lyngby, Denmark, 29/11-2005 (*invited oral presentation*).
1. **Lund, M.N.**, Skov, T., Løkke, M.M., Nørgaard, L. & Engelsen, S.B. (2001). Use of Vibrational Microspectroscopy and Chemometrics for Complex Food Analysis, European Conference on Advanced Technology for Safe and High Quality Foods (Eurocraft), Berlin, Germany (*poster*).