

Publikasjonsliste for 2001-2007

- 2001 **Børsheim, K.Y., Christensen, B.E. and Painter, T.J.** Preservation of fish by embedment in *Spagnum* moss, peat or holocellulose: experimental proof of the oxopolysaccharidic nature of the preservative substance and of its antimicrobial and tanning action. *Innovative Food Science & Emerging Technologies* **2**, 63-74.
- 2001 **Christensen, B.E., Ertesvåg, H., Beyenal, H. and Lewandowski, Z.** Resistance of biofilms containing alginate-producing bacteria to disintegration by an alginate degrading enzyme (AlgL). *Biofouling* **17**, 203-210.
- 2001 **Christensen, B.E., Ulset, A.-S., Beer, M.U., Knuckles, B.E., Williams, D.L., Fishman, M.L., Chau, H.K. and Wood, P.J.** Macromolecular characterisation of three barley β -glucan standards by size-exclusion chromatography combined with light scattering and viscometry: an inter-laboratory study. *Carbohydr. Polym.* **45**, 11-22.
- 2001 **Christensen, B.E., Aasprong, E. and Stokke, B.T.** Gelation of periodate oxidised scleroglucan (scleraldehyde). *Carbohydr. Polym.* **46**, 241-248.
- 2001 **Conceicao, L.E.C., Skjermo, J., Skjåk-Bræk, G. and Verreth, J.A.J.** Effect of an immunostimulating alginate on protein turnover of turbot (*Scophthalmus maximus* L.) larvae. *Fish Physiology and Biochemistry* **24**, 207-212.
- 2001 **Crescenzi, V., Dentini, M., Bernalda, M.S., Masci, G., Rori, V. and Skjåk-Bræk, G.** Enzymatic epimerization of bacterial mannuronan and of C-6 oxidized, galactose-depleted guar: A circular dichroism and ^1H NMR study. *Biomacromolecules* **2**, (3), 958-964.
- 2001 **de Lange Davies, C., Engesæter, B.Ø., Haug, I., Ormberg, I.W., Halgunset, J. and Brekken, C.** Uptake of IgG in osteosarcoma correlates inversely with interstitial fluid pressure, but not with interstitial constituents. *British Journal of Cancer* **85**, (12), 1968-1977.
- 2001 **Draget, K.I., Gåserød, O., Aune, I., Andersen, P.O., Storbakken, B., Stokke, B.T. and Smidsrød, O.** Effects of molecular weight and elastic segment flexibility on syneresis in Ca-alginate gels. *Food Hydrocolloids* **15**, 485-490.
- 2001 **Fukamizo, T., Yamaguchi, T., Araki, T., Torikata, T., Kristiansen, A. and Vårum, K.M.** Binding of highly de-N-acetylated chitosan to Japanese pheasant lysozyme as measured by ^1H -NMR spectroscopy. *Bioscience Biotechnology and Biochemistry* **65**, 1766-1773.
- 2001 **Glærum Svanem, B.I., Strand, W.I., Ertesvåg, H., Skjåk-Bræk, G., Hartmann, M., Barbeyron, T. and Valla, S.** The catalytic activities of the biofunctional *Acetobacter vinelandii* mannuronan C-5-epimerase and alginate lyase AlgE7 probably originate from the same active site in the enzyme. *Journal of Biological Chemistry* **276**, (34), 31542-31550.
- 2001 **Granum, E. and Myklestad, S.** Mobilization of β -1,3-glucan and biosynthesis of amino acids induced by NH_4^+ addition to N-limited cells of the marine diatom *Skeletonema costatum* (Bacillariophyceae)¹. *Journal of phycology* **37**, 772-782.
- 2001 **Holme, H.K., Foros, H., Pettersen, H., Dornish, M. and Smidsrød, O.** Thermal depolymerization of chitosan chloride. *Carbohydr. Polym.* **46**, 287-294.
- 2001 **Horn, S.J. and Østgaard, K.** Alginate lyase activity and acidogenesis during fermentation of *Laminaria hyperborea*. *J. Appl. Phycol.* **13**, 143-152.
- 2001 **Jonsbu, E.** Production and control of nystatin by *Streptomyces noursei*. Thesis. Norwegian University of Science and Technology.

- 2001 **Jonsbu, E., Christensen, B. and Nielsen, J.** Changes of in vivo fluxes through central metabolic pathways during the production of nystatin by *Streptomyces noursei* in batch culture. *Appl. Microbiol. Biotechnol.* **56**, 93-100.
- 2001 **Klinkenberg, G., Lystad, K.Q., Levine, D.W. and Dyrset, N.** Cell release from alginate immobilized *Lactococcus lactis* ssp. *lactis* in chitosan and alginate coated beads. *Journal of Dairy Science* **84**, (5), 1118-1127.
- 2001 **Klinkenberg, G., Lystad, K.Q., Levine, D.W. and Dyrset, N.** pH-controlled cell release and biomass distribution of alginate-immobilized *Lactococcus lactis* subsp. *lactis*. *Journal of Applied Microbiology* **91**, 705-714.
- 2001 **Köping-Höggård, M., Tubulekas, I., Guan, H., Edwards, K., Nilsson, M., Vårum, K.M. and Artursson, P.** Chitosan as a nonviral gene delivery system. Structure-property relationships and characteristics compared with polyethylenimine *in vitro* and after lung administration *in vivo*. *Gene Therapy* **8**, (14), 1108-1121.
- 2001 **Legrand, C., Johansson, N., Johnsen, G., Børsheim, K.Y. and Granéli, E.** Phagotrophy and toxicity variation in the mixotrophic *Prymnesium patelliferum* (Haptophyceae). *Limnology and oceanography* **46**, (5), 1208-1214.
- 2001 **Ramstad, M.V., Markussen, S., Ellingsen, T.E., Skjåk-Bræk, G. and Levine, D.W.** Influence of environmental conditions on the activity of the recombinant mannuronan C-5-epimerase AlgE2. *Enzyme Microb. Technol.* **28**, 57-69.
- 2001 **Rasmussen, K. and Østgaard, K.** Adhesion of the marine fouling diatom *Amphora coffeaeformis* to non-solid gel surfaces. *Biofouling* **17**, (2), 103-115.
- 2001 **Roubroeks, J.P., Andersson, A., Mastromauro, D.I., Christensen, B.E. and Åman, P.** Molecular weight, structure and shape of oat (1-3),(1-4)- β -D-glucan fractions obtained by enzymatic degradation with (1-4)- β -D-glucan 4-glucanohydrolase from *Trichoderma reesei*. *Carbohydr. Polym.* **46**, 275-285.
- 2001 **Santos, P.M., Bartolo, I.D., Blatny, J.M., Zennaro, E. and Valla, S.** New broad-host-range promoter probe vectors based on the plasmid RK2 replicon. *FEMS Microbiology Letters* **195**, 91-96.
- 2001 **Smidsrød, O. and Vårum, K.M.** Structure function relations in chitosans. In *Chitin and Chitosan- Chitin and Chitosan in Life Science*. Edited by Uragami, T., Kurita, K. and Fukamizo, T. Kodansha Scientific Ltd. **1-11**.
- 2001 **Strand, B.L., Ryan, L., In't Veld, P., Kulseng, B., Rokstad, A.M., Skjåk-Bræk, G. and Espevik, T.** Poly-L-lysine induces fibrosis on alginate microcapsules via the induction of cytokines. *Cell transplantation* **10**, 263-275.
- 2001 **Strand, S.P.** Interactions between chitosans and bacteria: flocculation and adhesion. Thesis. *Norwegian University of Science and Technology*.
- 2001 **Strand, S.P., Tømmerraas, K., Vårum, K.M. and Østgaard, K.** Electrophoretic light scattering studies of chitosans with different degrees of N-acetylation. *Biomacromolecules* **2**, (4), 1310-1314.
- 2001 **Strand, S.P., Vandvik, M.S., Vårum, K.M. and Østgaard, K.** Screening of chitosans and conditions for bacterial flocculation. *Biomacromolecules* **2**, (1), 126-133.
- 2001 **Tømmerraas, K., Strand, S.P., Tian, W., Kenne, L. and Vårum, K.M.** Preparation and characterisation of fluorescent chitosans using 9-anthraldehyde as fluorophore. *Carbohydr. Res.* **336**, 291-296.

- 2001 **Tømmeraas, K., Vårum, K.M., Christensen, B.E. and Smidsrød, O.** Preparation and characterisation of oligosaccharides produced by nitrous acid depolymerisation of chitosans. *Carbohydr. Res.* **333**, 137-144.
- 2001 **Valla, S., Li, J.-p., Ertesvåg, H., Barbeyron, T. and Lindahl, U.** Hexuronyl C5-epimerases in alginate and glycosaminoglycan biosynthesis. *Biochimie* **83**, 819-830.
- 2001 **Vårum, K.M., Koga, D. and Smidsrød, O.** Degradation of Chitosans. In *Chitin and Chitosan-Chitin and Chitosan in Life Science*. Edited by Uragami, T., Kurita, K. and Fukamizo, T. Kodansha Scientific Ltd. **36-42**.
- 2001 **Vårum, K.M., Ottøy, M.H. and Smidsrød, O.** Acid hydrolysis of chitosans. *Carbohydr. Polym.* **46**, 89-98.
- 2002 **Brautaset, T., Bruheim, P., Sletta, H., Hagen, L., Ellingsen, T.E., Strøm, A.R., Valla, S. and Zotchev, S.B.** Hexaene derivatives of nystatin produced as a result of an induced rearrangement within the *nysC* polyketide synthase gene in *S. noursei* ATCC 11455. *Chemistry & Biology* **9**, 367-373.
- 2002 **Bredholt, H., Bruheim, P., Potocky, M. and Eimhjellen, K.** Hydrophobicity development, alkane oxidation, and crude-oil emulsification in a *Rhodococcus* species. *Canadian journal of microbiology* **48**, 295-304.
- 2002 **Bruheim, P., Butler, M. and Ellingsen, T.E.** A theoretical analysis of the biosynthesis of actinorhodin in a hyper-producing *Streptomyces lividans* strain cultivated on various carbon sources. *Appl. Microbiol. Biotechnol.* **58**, 735-742.
- 2002 **Bruheim, P., Sletta, H., Bibb, M.J., White, J. and Levine, D.W.** High-yield actinorhodin production in fed-batch culture by a *Streptomyces lividans* strain overexpressing the pathway-specific activator gene *actII-ORF4*. *Journal of Industrial Microbiology & Biotechnology* **28**, 103-111.
- 2002 **Crescenzi, V., Skjåk-Bræk, G., Dentini, M., Masci, G., Bernalda, M.S., Risica, D., Capitani, D., Mannina, L. and Segre, A.L.** A high field NMR study of the products ensuing from konjak glucomannan C(6)-oxidation followed by enzymatic C(5)-epimerization. *Biomacromolecules* **3**, 1343-1352.
- 2002 **Draget, I. and Skjåk-Bræk, G.** Alginates in relation to human health; From commodity to high-cost products? *Proc. 11th. Gums and Stabil. Conf. for Food Industry*. Cambridge, UK. Edited by Williams, P.A. and Phillips, G.O., The Royal Society of Chemistry. **356-364**.
- 2002 **Draget, K.I., Smidsrød, O. and Skjåk-Bræk, G.** Alginates from algae. In *Biopolymers*. Edited by Vandamme, E., De Baets, S. and Steinbüchel, A. Wiley-VCH Verlag GmbH. **215-244**.
- 2002 **Flo, T.H., Ryan, L., Latz, E., Takeuchi, O., Monks, B.G., Lien, E., Halaas, Ø., Akira, S., Skjåk-Bræk, G., Golenbock, D.T. and Espevik, T.** Involvement of toll-like receptor (TLR) 2 and TLR4 in cell activation by mannuronic acid polymers. *Journal of Biological Chemistry* **277**, (38), 35489-35495.
- 2002 **Fredheim, G.E.** Macromolecular characterisation of lignosulfonates and their interactions with chitosans. Thesis. *Norwegian University of Science and Technology*.
- 2002 **Fredheim, G.E., Braaten, S.M. and Christensen, B.E.** Molecular weight determination of lignosulfonates by size-exclusion chromatography and multi-angle laser light scattering. *Journal of Chromatography A*, (942), **191-199**.
- 2002 **Granum, E.** Metabolism and function of β -1,3-glucan in marine diatoms. Thesis. *Norwegian University of Science and Technology*.

- 2002 **Granum, E., Kirkvold, S. and Myklestad, S.** Cellular and extracellular production of carbohydrates and amino acids by the marine diatom *Skeletonema costatum*: diel variations and effects of N depletion. *Marine Ecology Progress Series* **242**, 83-94.
- 2002 **Granum, E. and Myklestad, S.** A simple combined method for determination of β -1,3-glucan and cell wall polysaccharides in diatoms. *Hydrobiologia* **477**, 155-161.
- 2002 **Granum, E. and Myklestad, S.M.** A photobioreactor with pH control: demonstration by growth of the marine diatom *Skeletonema costatum*. *Journal of Plankton Research* **24**, (6), 557-563.
- 2002 **Hartmann, M., Duun, A.S., Markussen, S., Grasdalen, H., Valla, S. and Skjåk-Bræk, G.** Time-resolved ^1H and ^{13}C NMR spectroscopy for detailed analyses of the *Azotobacter vinelandii* mannuronan C-5 epimerase reaction. *Biochimica et biophysica acta* **1570**, 104-112.
- 2002 **Hartmann, M., Holm, O.B., Johansen, G.A.B., Skjåk-Bræk, G. and Stokke, B.T.** Mode of action of *Azotobacter vinelandii* mannuronan C-5 epimerases AlgE2 and AlgE4. *Biopolymers* **63**, 77-88.
- 2002 **Haug, I.J., Devle, H., Draget, K.I. and Smidsrød, O.** Mixed systems of fish gelatin and κ -carrageenan. *Proc. 11th. Gums and Stabil. Conf. for Food Industry*. Cambridge, UK. Edited by Williams, P.A. and Phillips, G.O., The Royal Society of Chemistry. **172-176**.
- 2002 **Heggestad, T. and Børsheim, K.Y.** Accessibility and distribution of the Norwegian National Air Emergency Service: 1988-1998. *Air Medical Journal* **21**, (3), 39-45.
- 2002 **Hultmann, L. and Rustad, T.** Textural changes during iced storage of salmon (*Salmo salar*) and cod (*Gadus morhua*). *J. Aquat. Food Prod. Tech.* **11**, (3/4), 105-123.
- 2002 **Klinkenberg, G.** Studies of cell release and biomass activity of alginate immobilized lactic acid bacteria. Thesis. *Norwegian University of Science and Technology*.
- 2002 **Rasmussen, K.** Marine biofouling - microbial adhesion to non-solid gel surfaces. Thesis. *Norwegian University of Science and Technology*.
- 2002 **Rasmussen, K., Willemsen, P.R. and Østgaard, K.** Barnacle settlement on hydrogels. *Biofouling* **18**, (3), 177-191.
- 2002 **Rokstad, A.M., Holtan, S., Strand, B., Steinkjer, B., Ryan, L., Kulseng, B., Skjåk-Bræk, G. and Espevik, T.** Microencapsulation of cells producing therapeutic proteins: Optimizing cell growth and secretion. *Cell transplantation* **11**, 313-324.
- 2002 **Strand, B.L.** Alginate microcapsules for cell therapy - A study of functional properties of capsules made of native and enzymatically tailored alginates. Thesis. *Norwegian University of Science and Technology*.
- 2002 **Strand, B.L., Gåserød, O., Kulseng, B., Espevik, T. and Skjåk-Bræk, G.** Alginate-polylysine-alginate microcapsules: effect of size reduction on capsule properties. *Journal of Microencapsulation* **19**, (5), 615-630.
- 2002 **Strand, S.P., Nordengen, T. and Østgaard, K.** Efficiency of chitosans applied for flocculation of different bacteria. *Wat. Res.* **26**, (19), 4745-4752.
- 2002 **Trzcíński, S., Vårum, K.M., Staszewska, D.U., Smidsrød, O. and Bohdanecký, M.** Comparative studies on molecular chain parameters of chitosans and poly(diallyldimethylammonium chloride): the stiffness *B*-parameter and the temperature coefficient of intrinsic viscosity. *Carbohydr. Polym.* **48**, 171-178.
- 2002 **Tømmerraas, K., Köping-Höggård, M., Vårum, K.M., Christensen, B.E., Artursson, P. and Smidsrød, O.** Preparation and characterisation of chitosans with oligosaccharide branches. *Carbohydr. Res.* **337**, 2455-2462.

- 2002 **Vogelsang, C., Schramm, A., Picioreanu, C., van Loosdrecht, M.C.M. and Østgaard, K.** Microbial community analysis by FISH for mathematical modelling of selective enrichment of gel-entrapped nitrifiers obtained from domestic wastewater. *Hydrobiologia* **469**, 165-178.
- 2002 **Wimmer, R., Aachmann, F.L., Larsen, K.L. and Petersen, S.B.** NMR diffusion as a novel tool for measuring the association constant between cyclodextrin and guest molecules. *Carbohydr. Res.* **337**, 841-849.
- 2003 **Aparicio, J.F., Caffrey, P., Gil, J.A. and Zotchev, S.B.** Polyene antibiotic biosynthesis gene clusters. *Appl. Microbiol. Biotechnol.* **61**, 179-188.
- 2003 **Bjerkan, T.M.** Structure-function analyses of mannuronan C-5-epimerases - A family of modular type enzymes with an applied potential. Thesis. *Norwegian University of Science and Technology*.
- 2003 **Blatny, J.M., Ertesvåg, H., Nes, I.F. and Valla, S.** Heterologous gene expression in *Lactococcus lactis*; expression of the *Azotobacter vinelandii* *algE6* gene product displaying mannuronan C-5 epimerase activity. *FEMS Microbiology Letters* **227**, 229-235.
- 2003 **Brautaset, T., Borgos, S.E.F., Sletta, H., Ellingsen, T.E. and Zotchev, S.B.** Site-specific mutagenesis and domain substitutions in the loading module of the nystatin polyketide synthase, and their effects on nystatin biosynthesis in *Streptomyces noursei*. *Journal of Biological Chemistry* **278**, (17), 14913-14919.
- 2003 **Brautaset, T., Williams, M.D., Dillingham, R.D., Kaufmann, C., Bennaars, A., Crabbe, E. and Flickinger, M.C.** Role of the *Bacillus methanolicus* citrate synthase II gene, *citY*, in regulating the secretion of glutamate in L-lysine-secreting mutants. *Appl. Environ. Microbiol.* **69**, (7), 3986-3995.
- 2003 **Butler, M.J., Bruheim, P., Jovetic, S., Marinelli, F., Postma, P.W. and Bibbs, M.J.** Engineering of primary carbon metabolism for improved antibiotic production in *Streptomyces lividans*. *Appl. Environ. Microbiol.* **68**, (10), 4731-4739.
- 2003 **Butler, M.J., Takano, E., Bruheim, P., Jovetic, S., Marinelli, F. and Bibb, M.J.** Deletion of *scbA* enhances antibiotic production in *Streptomyces lividans*. *Appl. Microbiol. Biotechnol.* **61**, 512-516.
- 2003 **Conceicao, L.E.C., Grasdalen, H. and Dinis, M.T.** A new method to estimate the relative bioavailability of individual amino acids in fish larvae using ¹³C-NMR spectroscopy. *Comp. Biochem. Physiol. Part B* **134**, 103-109.
- 2003 **Conceicao, L.E.C., Grasdalen, H. and Rønnestad, I.** Amino acid requirements of fish larvae and post-larvae: new tools and recent findings. *Aquaculture* **227**, 221-232.
- 2003 **Donati, I., Gamini, A., Skjåk-Bræk, G., Vetere, A., Campa, C., Coslovi, A. and Paoletti, S.** Determination of the diadic composition of alginate by means of circular dichroism: a fast and accurate improved method. *Carbohydr. Res.* **338**, 1139-1142.
- 2003 **Donati, I., Vetere, A., Gamini, A., Skjåk-Bræk, G., Coslovi, A., Campa, C. and Paoletti, S.** Galactose-substituted alginate: Preliminary characterization and study of gelling properties. *Biomacromolecules* **4**, 624-631.
- 2003 **Draget, K.I., Stokke, B.T., Yuguchi, Y., Urakawa, H. and Kajiwar, K.** Small-angle x-ray scattering and rheological characterization of alginate gels. 3. Alginic acid gels. *Biomacromolecules* **4**, (6), 1661-1668.
- 2003 **Einbu, A. and Vårum, K.M.** Structure-property relationships in chitosan. In *Chemical and functional properties of food saccharides*. Edited by Tomasik, P. CRC Press. **217-229**.

- 2003 **Fredheim, G.E., Braaten, S.M. and Christensen, B.E.** Comparison of molecular weight and molecular weight distributions of softwood and hardwood lignosulfonates. *Journal of wood chemistry and technology* **23**, (2), **197-215**.
- 2003 **Fredheim, G.E. and Christensen, B.E.** Polyelectrolyte complexes: Interactions between lignosulfonate and chitosan. *Biomacromolecules* **4**, (2), **232-239**.
- 2003 **Gimmestad, M., Sletta, H., Ertesvåg, H., Bakkevig, K., Jain, S., Suh, S., Skjåk-Bræk, G., Ellingsen, T.E., Ohman, D.E. and Valla, S.** The *Pseudomonas fluorescens* AlgG protein, but not its mannuronan C-5-epimerase activity, is needed for alginate polymer formation. *J. Bacteriol.* **185**, (12), **3515-3523**.
- 2003 **Gunnarsson, N., Bruheim, P. and Nielsen, J.** Production of the glycopeptide antibiotic A40926 by *Nonomuraea* sp. ATCC 39727: influence of medium composition in batch fermentation. *Journal of Industrial Microbiology & Biotechnology* **30**, **150-156**.
- 2003 **Haug, I., Williams, M.A.K., Ludlin, L., Smidsrød, O. and Draget, K.I.** Molecular interactions in, and rheological properties of, a mixed biopolymer system undergoing order/disorder transitions. *Food Hydrocolloids* **17**, **439-444**.
- 2003 **Haug, I.J.** Fish gelatin from cold water fish species. Physical and rheological characterisation of fish gelatin and mixtures of fish gelatin and kappa-carrageenan. Thesis. *Norwegian University of Science and Technology*.
- 2003 **Holme, H.K., Lindmo, K., Kristiansen, A. and Smidsrød, O.** Thermal depolymerization of alginate in the solid state. *Carbohydr. Polym.* **54**, **431-438**.
- 2003 **Hultmann, L.** Endogenous proteolytic enzymes - Studies of their impact on fish muscle proteins and texture. Thesis. *Norwegian University of Science and Technology*.
- 2003 **Hunkeler, D., Rajotte, R., Grey, D., Morel, P., Skjåk-Bræk, G., Korbitt, G., Gill, R. and Oberholzer, J.** Bioartificial organ grafts: A view at the beginning of the third millennium. *Artif. Cells, Blood Substitutes, Biotechnol.* **31**, (4), **365-382**.
- 2003 **Jain, S., Franklin, M.J., Ertesvåg, H., Valla, S. and Ohman, D.E.** The dual roles of AlgG in C-5-epimerization and secretion of alginate polymers in *Pseudomonas aeruginosa*. *Molecular microbiology* **47**, (4), **1123-1133**.
- 2003 **King, A., Andersson, A., Strand, B.L., Lau, J., Skjåk-Bræk, G. and Sandler, S.** The role of capsule composition and biologic responses in the function of transplanted microencapsulated islets of langerhans. *Transplantation* **76**, (2), **275-279**.
- 2003 **King, A., Strand, B., Rokstad, A.M., Kulseng, B., Andersson, A., Skjåk-Bræk, G. and Sandler, S.** Improvement of the biocompatibility of alginate/poly-L-lysine/alginate microcapsules by the use of epimerized alginate as a coating. *Journal of Biomedical Materials Research* **64**, (3), **533-539**.
- 2003 **Köping-Höggård, M., Mel'nikova, Y.S., Vårum, K.M., Lindman, B. and Artursson, P.** Relationship between the physical shape and the efficiency of oligomeric chitosan as a gene delivery system *in vitro* and *in vivo*. *Journal of Gene Medicine* **5**, **130-141**.
- 2003 **Larsen, C.K., Gåserød, O. and Smidsrød, O.** A novel method for measuring hydration and dissolution kinetics of alginate powders. *Carbohydr. Polym.* **51**, **125-134**.
- 2003 **Painter, T.J.** Concerning the wound-healing properties of *Sphagnum* holocellulose: the Maillard reaction in pharmacology. *Journal of Ethnopharmacology* **88**, **145-148**.
- 2003 **Rasmussen, K. and Østgaard, K.** Adhesion of the marine bacterium *Pseudomonas* sp. NCIMB 2021 to different hydrogel surfaces. *Wat. Res.* **37**, **519-524**.

- 2003 **Robin, J., Bruheim, P., Nielsen, M.L., Noorman, H. and Nielsen, J.** Continuous cultivations of a *Penicillium chrysogenum* strain expressing the expandase gene from *Streptomyces clavuligerus*: Kinetics of adipoyl-7-aminodeacetyoxycephalosporanic acid and byproduct formations. *Biotechnology and bioengineering* **83**, (3), **353-360**.
- 2003 **Rokstad, A.M., Strand, B., Rian, K., Steinkjer, B., Kulseng, B., Skjåk-Bræk, G. and Espevik, T.** Evaluation of different types of alginate microcapsules as bioreactors for producing endostatin. *Cell transplantation* **12**, **351-364**.
- 2003 **Rustad, T.** Utilisation of marine by-products. *Electronic Journal of Environmental, Agricultural and Food Chemistry* **2**, (4), **1-6**.
- 2003 **Sasaki, C., Kristiansen, A., Fukamizo, T. and Vårum, K.M.** Biospecific fractionation of chitosan. *Biomacromolecules* **4**, **1686-1690**.
- 2003 **Strand, B.L., Mørch, Y.A., Espevik, T. and Skjåk-Bræk, G.** Visualization of alginate-poly-L-lysine-alginate microcapsules by confocal laser scanning microscopy. *Biotechnology and bioengineering* **82**, (4), **386-394**.
- 2003 **Strand, B.L., Mørch, Y.A., Syvertsen, K.R., Espevik, T. and Skjåk-Bræk, G.** Microcapsules made by enzymatically tailored alginate. *Journal of Biomedical Materials Research* **64**, (3), **540-550**.
- 2003 **Strand, S.P., Vårum, K.M. and Østgaard, K.** Interactions between chitosans and bacterial suspensions: adsorption and flocculation. *Colloids and Surfaces B: Biointerfaces* **27**, **71-81**.
- 2003 **Tømmerraas, K.** Branched chitosans for potential use in gene delivery. Preparation and physical-chemical characterisation. Thesis. *Norwegian University of Science and Technology*.
- 2003 **Vold, I.M.N., Vårum, K.M., Guibal, E. and Smidsrød, O.** Binding of ions to chitosan - selectivity studies. *Carbohydr. Polym.* **54**, (4), **471-477**.
- 2003 **Zotchev, S.** Polyene macrolide antibiotics and their applications in human therapy. *Current Medicinal Chemistry* **10**, (3), **211-223**.
- 2003 **Aasprong, E.** Gelation of a triple helical (1-3)- β -D-glucan: The scleroglucan case. Thesis. *Norwegian University of Science and Technology*.
- 2003 **Aasprong, E., Smidsrød, O. and Stokke, B.T.** Scleroglucan gelation by *in situ* neutralization of the alkaline solution. *Biomacromolecules* **4**, **914-921**.
- 2004 **Ballance, S., Børsheim, K.Y. and Christensen, B.E.** A unique 5-keto sugar in the leaves of *Sphagnum* moss: A review of the evidence. *12th International Peat Congress*. Tampere, Finland. Edited by Päivänen, J., Finish Peatland Society. **293-299**.
- 2004 **Bjerkan, T.M., Bender, C.L., Ertesvåg, H., Drabløs, F., Fakhr, M.K., Preston, L.A., Skjåk-Bræk, G. and Valla, S.** The *Pseudomonas syringae* genome encodes a combined mannuronan C-5-epimerase and O-acetylhydrolase, which strongly enhances the predicted gel-forming properties of alginates. *Journal of Biological Chemistry* **279**, (28), **28920-28929**.
- 2004 **Bjerkan, T.M., Lillehov, B.E., Strand, W.I., Skjåk-Bræk, G., Valla, S. and Ertesvåg, H.** Construction and analyses of hybrid *Azotobacter vinelandii* mannuronan C-5 epimerases with new epimerization pattern characteristics. *Biochem. J.* **381**, (3), **813-821**.
- 2004 **Brautaset, T., Jakobsen, Ø.M., Flickinger, M.C., Valla, S. and Ellingsen, T.E.** Plasmid-dependent methylotrophy in thermotolerant *Bacillus methanolicus*. *J. Bacteriol.* **186**, (5), **1229-1238**.
- 2004 **Bruheim, P., Borgos, S.E.F., Tsan, P., Sletta, H., Ellingsen, T.E., Lancelin, J.-M. and Zotchev, S.** Chemical diversity of polyene macrolides produced by *Streptomyces noursei*

ATCC 11455 and recombinant strain ERD44 with genetically altered polyketide synthase NysC. *Antimicrobial Agents and Chemotherapy* **48**, (11), **4120–4129**.

- 2004** **Campa, C., Holtan, S., Nilsen, N., Bjerkan, T.M., Stokke, B.T. and Skjåk-Bræk, G.** Biochemical analysis of the processive mechanism for epimerisation of alginate by mannuronan C-5 epimerase AlgE4. *Biochemical Journal* **381**, (1), **155-164**.
- 2004** **Campa, C., Oust, A., Skjåk-Bræk, G., Paulsen, B.S., Paoletti, S., Christensen, B.E. and Ballance, S.** Determination of average degree of polymerisation and distribution of oligosaccharides in a partially acid-hydrolysed homopolysaccharide: A comparison of four experimental methods applied to mannuronan. *J. Chromatogr. A* **1026**, **271-281**.
- 2004** **Crescenzi, V., Dentini, M., Risica, D., Spadoni, S., Skjåk-Bræk, G., Capitani, D., Mannina, L. and Viel, S.** C(6)-oxidation followed by C(5)-epimerization of guar gum studied by high field NMR. *Biomacromolecules* **5**, **537-546**.
- 2004** **Danielsen, S., Vårum, K.M. and Stokke, B.T.** Structural analysis of chitosan mediated DNA condensation by AFM: Influence of chitosan molecular parameters. *Biomacromolecules* **5**, **928-936**.
- 2004** **Dauksas, E., Slizyte, R., Rustad, T. and Storrø, I.** Bitterness in fish protein hydrolysates and methods for removal. *J. Aquat. Food Prod. Tech.* **13**, (2), **101-114**.
- 2004** **Davis, T.A., Ramirez, M., Mucci, A. and Larsen, B.** Extraction, isolation and cadmium binding of alginate from *Sargassum* spp. *J. Appl. Phycol.* **16**, **275-284**.
- 2004** **Donati, I., Coslovi, A., Gamini, A., Skjåk-Bræk, G., Vetere, A., Campa, C. and Paoletti, S.** Galactose-substituted alginate 2: Conformational aspects. *Biomacromolecules* **5**, **186-196**.
- 2004** **Einbu, A., Nalum Naess, S., Elgsaeter, A. and Vårum, K.M.** Solution properties of chitin in alkali. *Biomacromolecules* **5**, **2048-2054**.
- 2004** **Hagen Rødde, R.S., Vårum, K.M., Larsen, B.A. and Myklestad, S.M.** Seasonal and geographical variation in the chemical composition of the red alga *Palmaria palmata* (L.) Kuntze. *Botanica Marina* **47**, **125–133**.
- 2004** **Haug, I.J., Draget, K.I. and Smidsrød, O.** Physical and rheological properties of fish gelatin compared to mammalian gelatin. *Food Hydrocolloids* **18**, **203-213**.
- 2004** **Haug, I.J., Draget, K.I. and Smidsrød, O.** Physical behaviour of fish gelatin-κ-carrageenan mixtures. *Carbohydr. Polym.* **56**, **11-19**.
- 2004** **Hultmann, L. and Rustad, T.** Iced storage of Atlantic salmon (*Salmo salar*) – effects on endogenous enzymes and their impact on muscle proteins and texture. *Food Chemistry* **87**, **31–41**.
- 2004** **Hultmann, L., Rørå, A.M.B., Steinsland, I., Skåra, T. and Rustad, T.** Proteolytic activity and properties of proteins in smoked salmon (*Salmo salar*) - effects of smoking temperature. *Food Chemistry* **85**, **377-387**.
- 2004** **Köping-Höggård, M., Vårum, K.M., Danielsen, S., Christensen, B.E., Stokke, B.T. and Artursson, P.** Improved chitosan-mediated gene delivery based on easily dissociated chitosan polyplexes of highly defined chitosan oligomers. *Gene Therapy* **11**, **1441-1452**.
- 2004** **Lundgaard, L.E., Hansen, W., Linhjell, D. and Painter, T.J.** Aging of oil-impregnated paper in power transformers. *IEEE TRANSACTIONS ON POWER DELIVERY* **19**, (1), **230-239**.
- 2004** **McKinney, J., Knappskog, P.M., Pereira, J., Ekern, T., Toska, K., Kuitert, B.B., Levine, D.W., Gronenborn, A.M., Martinez, A. and Haavik, J.** Expression and purification of human

tryptophan hydroxylase from *Escherichia coli* and *Pichia pastoris*. *Protein Expression and Purification* **33**, 185–194.

- 2004 **Nedal, A. and Zotchev, S.B.** Biosynthesis of deoxyaminosugars in antibiotic-producing bacteria. *Appl. Microbiol. Biotechnol.* **64**, 7-15.
- 2004 **Robles-Price, A., Wong, T.Y., Sletta, H., Valla, S. and Schiller, N.L.** AlgX is a periplasmic protein required for alginate biosynthesis in *Pseudomonas aeruginosa*. *J. Bacteriol.* **186**, (21), 7369–7377.
- 2004 **Sekurova, O.N., Brautaset, T., Sletta, H., Borgos, S.E.F., Jakobsen, Ø.M., Ellingsen, T.E., Strøm, A.R., Valla, S. and Zotchev, S.B.** In vivo analysis of the regulatory genes in the nystatin biosynthetic gene cluster of *Streptomyces noursei* ATCC 11455 reveals their differential control over antibiotic biosynthesis. *J. Bacteriol.* **186**, (5), 1345-1354.
- 2004 **Sletmoen, M., Skjåk-Bræk, G. and Stokke, B.T.** Single-molecular pair unbinding studies of mannuronan C-5 epimerase AlgE4 and its polymer substrate. *Biomacromolecules* **5**, 1288-1295.
- 2004 **Sletta, H., Nedal, A., Aune, T.E.V., Hellebust, H., Hakvåg, S., Aune, R., Ellingsen, T.E., Valla, S. and Brautaset, T.** Broad-host-range plasmid pJB658 can be used for industrial-level production of a secreted host-toxic single-chain antibody fragment in *Escherichia coli*. *Appl. Environ. Microbiol.* **70**, (12), 7033-7039.
- 2004 **Slizyte, R.** Hydrolysis of cod (*Gadus morhua*) by-products: Influence of raw material composition and process conditions. Thesis. *Norwegian University of Science and Technology*.
- 2004 **Slizyte, R., Van Nguyen, J., Rustad, T. and Storrø, I.** Hydrolysis of cod (*Gadus morhua*) by-products: Influence of initial heat inactivation, concentration and separation conditions. *J. Aquat. Food Prod. Tech.* **13**, (2), 31-48.
- 2004 **Sommer, U., Hansen, T., Stibor, H. and Vadstein, O.** Persistence of phytoplankton responses to different Si:N ratios under mesozooplankton grazing pressure: a mesocosm study with NE Atlantic plankton. *Marine Ecology Progress Series* **278**, 67–75.
- 2004 **Stibor, H., Vadstein, O., Diel, S., Gelzleichter, A., Hansen, T., Hantzschke, F., Katechakis, A., Lippert, B., Løseth, K., Peters, C., Roederer, W., Sandow, M., Sundt-Hansen, L. and Olsen, Y.** Copepods act as a switch between alternative trophic cascades in marine pelagic food webs. *Ecology Letters* **7**, 321-328.
- 2004 **Stibor, H., Vadstein, O., Lippert, B., Roederer, W. and Olsen, Y.** Calanoid copepods and nutrient enrichment determine population dynamics of the appendicularian *Oikopleura dioica*: a mesocosm experiment. *MARINE ECOLOGY PROGRESS SERIES* **270**, 209–215.
- 2004 **Strand, B.L., Skjåk-Bræk, G. and Gåserød, O.** Microcapsule formulation and formation. In *Fundamentals of Cell Immobilisation Biotechnology*. Edited by Nedovic, V. and Willaert, R. Kluwer Academic Press. **165-183**.
- 2004 **Søvik, S.L. and Rustad, T.** Seasonal changes in trypsin and chymotrypsin activity in viscera from cod species. *J. Aquat. Food Prod. Tech.* **13**, (2), 13-30.
- 2004 **Vadstein, O., Mo, T.A. and Bergh, Ø.** Microbial interactions, prophylaxis and diseases. In *Culture of cold-water marine fish*. Edited by Moksness, E., Kjørsvik, E. and Olsen, Y. Blackwell Publishing. **28-72**.
- 2004 **Vadstein, O., Stibor, H., Lippert, B., Løseth, K., Roederer, W., Sundt-Hansen, L. and Olsen, Y.** Moderate increase in the biomass of omnivorous copepods may ease grazing control of planktonic algae. *MARINE ECOLOGY PROGRESS SERIES* **270**, 199–207.

- 2004 **Vold, I.M.N.** Periodate oxidised chitosans: structure and solution properties. Thesis. *Norwegian University of Science and Technology*.
- 2004 **Vårum, K.M. and Smidsrød, O.** Structure-property relationship in chitosans. In *Polysaccharides: Structural diversity and functional versatility*. Edited by Dumitriu, S. Marcel Dekker. **625-642**.
- 2005 **Bakkevig, K., Sletta, H., Gimmestad, M., Aune, R., Ertesvåg, H., Degnes, K., Christensen, B.E., Ellingsen, T. and Valla, S.** Role of the *Pseudomonas fluorescens* alginate lyase (AlgL) in clearing the periplasm of alginates not exported to the extracellular environment. *J. Bacteriol.* **187**, (24), **8375-8384**.
- 2005 **Ballance, S., Holtan, S., Aarstad, O.A., Sikorski, P., Skjåk-Bræk, G. and Christensen, B.E.** Application of high-performance anion-exchange chromatography with pulsed amperometric detection and statistical analysis to study oligosaccharide distributions - a complementary method to investigate the structure and some properties of alginates. *J. Chromatogr. A* **1093**, **59-68**.
- 2005 **Borgos, S.E.F.** Analysis and engineering of nystatin biosynthesis in *Streptomyces noursei* via manipulation of the polyketide synthase genes. Thesis. *Norwegian University of Science and Technology*.
- 2005 **Børsheim, K.Y., Vadstein, O., Myklestad, S.M., Reinertsen, H., Kirkvold, S. and Olsen, Y.** Photosynthetic algal production, accumulation and release of phytoplankton storage carbohydrates and bacterial production in a gradient in daily nutrient supply. *Journal of Plankton Research* **27**, (8), **743-755**.
- 2005 **Danielsen, S., Strand, S.P., Davies, C.d.L. and Stokke, B.T.** Glycosaminoglycan destabilization of DNA-chitosan polyplexes for gene delivery depends on chitosan chain length and GAG properties. *Biochimica et Biophysica Acta* **1721**, **44- 54**.
- 2005 **Dauksas, E., Falch, E., Slizyte, R. and Rustad, T.** Composition of fatty acids and lipid classes in bulk products generated during enzymic hydrolysis of cod (*Gadus morhua*) by-products. *Process Biochemistry* **40**, **2659-2670**.
- 2005 **Dentini, M., Rinaldi, G., Risica, D., Barbetta, A. and Skjåk-Bræk, G.** Comparative studies on solution characteristics of mannuronan epimerized by C-5 epimerases. *Carbohydr. Polym.* **59**, **489-499**.
- 2005 **Donati, I., Draget, K.I., Borgogna, M., Paoletti, S. and Skjåk-Bræk, G.** Tailor-made alginate bearing galactose moieties on mannuronic residues: Selective modification achieved by a chemoenzymatic strategy. *Biomacromolecules* **6**, **88-98**.
- 2005 **Donati, I., Holtan, S., Mørch, Y.A., Borgogna, M., Dentini, M. and Skjåk-Bræk, G.** New hypothesis on the role of alternating sequences in calcium-alginate gels. *Biomacromolecules* **6**, **1031-1040**.
- 2005 **Eikenes, M., Alfredsen, G., Christensen, B.E., Militz, H. and Solheim, H.** Comparison of chitosans with different molecular weights as possible wood preservatives. *J. Wood Sci.* **51**, **387-394**.
- 2005 **Fjærviik, E. and Zotchev, S.B.** Biosynthesis of the polyene macrolide antibiotic nystatin in *Streptomyces noursei*. *Appl. Microbiol. Biotechnol.* **67**, **436-443**.
- 2005 **Gimmestad, M.** A study of bacterial genes involved in post-polymerization control of alginate structure. Thesis. *Norwegian University of Science and Technology*.
- 2005 **Köping-Höggård, M., Issa, M.M., Köhler, T., Tronde, A., Vårum, K.M. and Artursson, P.** A miniaturized nebulization catheter for improved gene delivery to the mouse lung. *The Journal of Gene Medicine* **7**, **1215-1222**.

- 2005 **Larsen, K.L., Aachmann, F.L., Wimmer, R. and Stella, V.J.** Phase solubility and structure of the inclusion complexes of prednisolone and 6 α -methyl prednisolone with various cyclodextrins. *Journal of Pharmaceutical Sciences* **94**, (3), **507-515**.
- 2005 **Psylinakis, E., Boneca, I.G., Mavromatis, K., Deli, A., Hayhurst, E., Foster, S.J., Vårum, K.M. and Bouriotis, V.** Peptidoglycan *N*-acetylglucosamine deacetylases from *Bacillus cereus*, highly conserved proteins in *Bacillus anthracis**. *Journal of Biological Chemistry* **280**, (35), **30856-30863**.
- 2005 **Rørå, A.M.B., Birkeland, S., Hultmann, L., Rustad, T., Skåra, T. and Bjerkeng, B.** Quality characteristics of farmed Atlantic salmon (*Salmo salar*) fed diets high in soybean or fish oil as affected by cold-smoking temperature. *LWT* **38**, **201-211**.
- 2005 **Sikorski, P., Stokke, B.T., Sørbotten, A., Vårum, K.M., Horn, S.J. and Eijsink, V.G.H.** Development and application of a model for chitosan hydrolysis by a family 18 chitinase. *Biopolymers* **77**, **273-285**.
- 2005 **Sletmoen, M., Christensen, B.E. and Stokke, B.T.** Probing macromolecular architectures of nanosized cyclic structures of (1-3)- β -D-glucans by AFM and SEC-MALLS. *Carbohydr. Res.* **340**, **971-979**.
- 2005 **Sletmoen, M., Skjåk-Bræk, G. and Stokke, B.T.** Mapping enzymatic functionalities of mannuronan C-5 epimerases and their modular units by dynamic force spectroscopy. *Carbohydr. Res.* **340**, **2782-2795**.
- 2005 **Sletta, H., Borgos, S.E.F., Bruheim, P., Sekurova, O., Grasdalen, H., Aune, R., Ellingsen, T. and Zotchev, S.B.** Nystatin biosynthesis and transport: *nysH* and *nysG* genes encoding a putative ABC transporter system in *Streptomyces noursei* ATCC 11455 are required for efficient conversion of 10-deoxynystatin to nystatin. *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY* **49**, (11), **4576-4583**.
- 2005 **Sliekers, A.O., Haaijer, S.C.M., Stafsnes, M.H., Kuenen, J.G. and Jetten, M.S.M.** Competition and coexistence of aerobic ammonium and nitrite-oxidizing bacteria at low oxygen concentrations. *Appl. Microbiol. Biotechnol.* **68**, **808-817**.
- 2005 **Slizyte, R., Dauksas, E., Falch, E., Storrø, I. and Rustad, T.** Characteristics of protein fractions generated from hydrolysed cod (*Gadus morhua*) by-products. *Process Biochemistry* **40**, **2021-2033**.
- 2005 **Slizyte, R., Dauksas, E., Falch, E., Storrø, I. and Rustad, T.** Yield and composition of different fractions obtained after enzymatic hydrolysis of cod (*Gadus morhua*) by-products. *Process Biochemistry* **40**, **1415-1424**.
- 2005 **Slizyte, R., Rustad, T. and Storrø, I.** Enzymatic hydrolysis of cod (*Gadus morhua*) by-products. Optimization of yield and properties of lipid and protein fractions. *Process Biochemistry* **40**, **3680-3692**.
- 2005 **Smidsrød, O. and Vårum, K.M.** Twenty years of chitosan research in Norway. *Journal of Metals, Materials and Minerals* **15**, (1), **83-88**.
- 2005 **Sommer, U., Hansen, T., Blum, O., Holzner, N., Vadstein, O. and Stibor, H.** Copepod and microzooplankton grazing in mesocosms fertilised with different Si:N ratios: no overlap between food spectra and Si:N influence on zooplankton trophic level. *Oecologia* **142**, **274-283**.
- 2005 **Strand, S.P., Danielsen, S., Christensen, B.E. and Vårum, K.M.** Influence of chitosan structure on the formation and stability of DNA-chitosan polyelectrolyte complexes. *Biomacromolecules* **6**, **3357-3366**.

- 2005 **Strugala, V., Kennington, E.J., Campbell, R.J., Skjåk-Bræk, G. and Dettmar, P.W.** Inhibition of pepsin activity by alginates in vitro and the effect of epimerization. *International Journal of Pharmaceutics* **304**, 40-50.
- 2005 **Sørbotten, A., Horn, S.J., Eijsink, V.G.H. and Vårum, K.M.** Degradation of chitosans with chitinase B from *Serratia marcescens*. Production of chito-oligosaccharides and insight into enzyme processivity. *FEBS Journal* **272**, 538-549.
- 2005 **Søvik, S.L.** Characterisation of enzymatic activities in by-products from cod species. Thesis. *Norwegian University of Science and Technology*.
- 2005 **Søvik, S.L. and Rustad, T.** Effect of season and fishing ground on the activity of lipases in byproducts from cod (*Gadus morhua*). *LWT* **38**, 867-876.
- 2005 **Søvik, S.L. and Rustad, T.** Effect of species, season and fishing ground on the activity of elastase in viscera from cod species. *J. Aquat. Food Prod. Tech.* **14**, (3), 61-73.
- 2005 **Søvik, S.L. and Rustad, T.** Proteolytic activity in byproducts from cod species caught at three different fishing grounds. *J. Agric. Food Chem.* **53**, 452-458.
- 2005 **Taylor, C., Draget, K.I., Pearson, J.P. and Smidsrød, O.** Mucous systems show a novel mechanical response to applied deformation. *Biomacromolecules* **6**, 1524-1530.
- 2005 **Taylor, C., Pearson, J.P., Draget, K.I., Dettmar, P.W. and Smidsrød, O.** Rheological characterisation of mixed gels of mucin and alginate. *Carbohydr. Polym.* **59**, 189-195.
- 2005 **Tøndervik, A.** Bacterial osmoregulation: studies on natural, mutated and engineered gene systems involved in the accumulation of compatible solutes in *Escherichia coli* K-12 and *Pseudomonas putida* KT2440. Thesis. *Norwegian University of Science and Technology*.
- 2005 **Vogelsang, C., Andersen, D.O., Hey, A., Håkonsen, T., Jantsch, T.G., Müller, E.D., Pedersen, M.A. and Vårum, K.M.** Removal of humic substances by chitosan. *Water Science and technology: Water Supply* **4**, (5-6), 121-129.
- 2005 **Vold, I.M.N. and Christensen, B.E.** Periodate oxidation of chitosans with different chemical compositions. *Carbohydr. Res.* **340**, 679-684.
- 2005 **Volokhan, O., Sletta, H., Sekurova, O.N., Ellingsen, T.E. and Zotchev, S.B.** An unexpected role for the putative 4'-phosphopantetheinyl transferase-encoding gene *nysF* in the regulation of nystatin biosynthesis in *Streptomyces noursei* ATCC 11455. *FEMS Microbiology Letters* **249**, 57-64.
- 2005 **Aachmann, F.** The NMR structure of the R-module - A parallel β -roll subunit from *Azotobacter vinelandii* alginate C-5 epimerase. Thesis. *Norwegian University of Science and Technology*
- 2005 **Aachmann, F.L., Glærum Svanem, B.I., Valla, S., Petersen, S.B. and Wimmer, R.** NMR assignment of the R-module from *Azotobacter vinelandii* mannuronan C5-epimerase AlgE4. *Journal of Biomolecular NMR* **31**, 259-260.
- 2005 **Aasprong, E., Smidsrød, O. and Stokke, B.T.** Swelling, mechanical properties and effect of annealing of scleroglucan gels. *Carbohydr. Polym.* **60**, 363 - 378.
- 2006 **Borgos, S.E.F., Sletta, H., Fjærvik, E., Brautaset, T., Ellingsen, T.E., Gulliksen, O.M. and Zotchev, S.B.** Effect of glucose limitation and specific mutations in the module 5 enoyl reductase domains in the nystatin and amphotericin polyketide synthases on polyene macrolide biosynthesis. *Arch. Microbiol.* **185** (3), 165-171.

- 2006 **Borgos, S.E.F., Tsan, P., Sletta, H., Ellingsen, T.E., Lancelin, J.-M. and Zotchev, S.B.** Probing the structure-function relationship of polyene macrolides: Engineered biosynthesis of soluble nystatin analogues. *J. Med. Chem.* **49**, (8), **2431-2439**.
- 2006 **Dale, O., Nilsen, T., Olaussen, G., Tvedt, K.E., Skorpen, F., Smidsrød, O. and Vårum, K.M.** Transepithelial transport of morphine and mannitol in Caco-2 cells: the influence of chitosans of different molecular weights and degrees of acetylation. *Journal of Pharmacy and Pharmacology* **58**, **909-915**.
- 2006 **de Vos, P., Faas, M.M., Strand, B. and Calafiore, R.** Alginate-based microcapsules for immunoisolation of pancreatic islets. *Biomaterials* **27**, **5603-5617**.
- 2006 **Dentini, M., Caucci, D., Barbetta, A., Crescenzi, V., Skjåk-Bræk, G., Capitani, D., Mannina, L. and Viel, S.** C(6)-oxidation and C(5)-epimerization of locust bean galactomannan studied by high field NMR and circular dichroism. *Biomacromolecules* **7**, **54-63**.
- 2006 **Dentini, M., Rinaldi, G., Barbetta, A., Risica, D. and Skjåk-Bræk, G.** Acid gel formation in (pseudo) alginates with and without G blocks produced by epimerising mannuronan with C5 epimerases. *Carbohydr. Polym.* **63**, **519-526**.
- 2006 **Draget, K.I., Moe, S.T., Skjåk-Bræk, G. and Smidsrød, O.** Alginates. In *Food Polysaccharides and Their Applications*. Edited by Stephen, A.M., Phillips, G.O. and Williams, P.A. CRC Press. **289-334**.
- 2006 **Draget, K.I., Skjåk-Bræk, G. and Stokke, B.T.** Similarities and differences between alginic acid gels and ionically crosslinked alginate gels. *Food Hydrocolloids* **20**, **170-175**.
- 2006 **Draget, K.I. and Smidsrød, O.** Modification of gelling kinetics and elastic properties by nano structuring of alginate gels exploiting the properties of poly-guluronate. In *Gums and Stabilisers for the Food Industry 13*. Edited by Williams, P.A. and Phillips, G.O. RSC Publishing. **227-233**.
- 2006 **Erikson, U., Hultmann, L. and Steen, J.E.** Live chilling of Atlantic salmon (*Salmo salar*) combined with mild carbon dioxide anaesthesia. I. Establishing a method for large-scale processing of farmed fish. *Aquaculture* **252**, **183-198**.
- 2006 **Falch, E.** Lipids from residual fish raw materials. Quality assessment by advanced analytical methods. Thesis. *Norwegian University of Science and Technology*.
- 2006 **Falch, E., Rustad, T. and Aursand, M.** By-products from gadiform species as raw material for production of marine lipids as ingredients in food or feed. *Process Biochemistry (Barking, UK)* **41**, **666-674**.
- 2006 **Falch, E., Rustad, T., Jonsdottir, R., Shaw, N.B., Dumay, J., Berge, J.P., Arason, S., Kerry, J.P., Sandbakk, M. and Aursand, M.** Geographical and seasonal differences in lipid composition and relative weight of by-products from gadiform species. *Journal of Food Composition and Analysis* **19**, **727-736**.
- 2006 **Falch, E., Størseth, T.R. and Aursand, M.** Multi-component analysis of marine lipids in fish gonads with emphasis on phospholipids using high resolution NMR spectroscopy. *Chemistry and Physics of Lipids* **144**, (1), **4-16**.
- 2006 **Falch, E., Øverby, A. and Rustad, T.** Natural antioxidants in cod liver oil: Pitfalls during oxidative stability assessment. In *Seafood research from fish to dish. Quality, safety and processing of wild and farmed fish*. Edited by Luten, J.B., Jacobsen, C., Bekaert, K., Sæbø, A. and Oehlenschläger, J. Wageningen Academic Publishers. **127-136**.
- 2006 **Fjellheim, A.J.** Selection and administration of probiotic bacteria to marine fish larvae. Thesis. *Norwegian University of Science and Technology*.

- 2006 **Gimmestad, M., Steigedal, M., Ertesvåg, H., Moreno, S., Christensen, B.E., Espín, G. and Valla, S.** Identification and characterization of an *Azotobacter vinelandii* type I secretion system responsible for export of the AlgE-type mannuronan C-5-epimerases. *J. Bacteriol.* **188**, (15), **5551-5560**.
- 2006 **Hartmann, M., Dentini, M., Draget, K.I. and Skjåk-Bræk, G.** Enzymatic modification of alginates with the mannuronan C-5 epimerase AlgE4 enhances their solubility at low pH. *Carbohydr. Polym.* **63**, **257-262**.
- 2006 **Holtan, S.** Structural tailoring of alginates. A study of the mode of action of mannuronan C-5 epimerases. Thesis. *Norwegian University of Science and Technology*.
- 2006 **Holtan, S., Bruheim, P. and Skjåk-Bræk, G.** Mode of action and subsite studies of the guluronan block forming mannuronan C-5 epimerases AlgE1 and AlgE6. *Biochemical Journal* **395**, **319-329**.
- 2006 **Holtan, S., Zhang, Q., Strand, W.I. and Skjåk-Bræk, G.** Characterization of the hydrolysis mechanism of polyalternating alginate in weak acid and assignment of the resulting MG-oligosaccharides by NMR spectroscopy and ESI-mass spectrometry. *Biomacromolecules* **7**, **2108-2121**.
- 2006 **Horn, S.J., Sikorski, P., Cederkvist, J.B., Vaaje-Kolstad, G., Sørli, M., Synstad, B., Vriend, G., Vårum, K.M. and Eijsink, V.G.H.** Costs and benefits of processivity in enzymatic degradation of recalcitrant polysaccharides. *PNAS* **103**, (48), **18089-18094**.
- 2006 **Horn, S.J., Sørbotten, A., Synstad, B., Sikorski, P., Sørli, M., Vårum, K.M. and Eijsink, V.G.H.** Endo/exo mechanism and processivity of family 18 chitinases produced by *Serratia marcescens*. *FEBS Journal* **273**, **491-503**.
- 2006 **Horn, S.J., Sørli, M., Vaaje-Kolstad, G., Norberg, A.L., Synstad, B., Vårum, K.M. and Eijsink, V.G.H.** Comparative studies of chitinases A, B and C from *Serratia marcescens*. *Biocatalysis and Biotransformation* **24**(1/2), **39-53**.
- 2006 **Issa, M.M., Köping-Höggård, M., Tømmerraas, K., Vårum, K.M., Christensen, B.E., Strand, S.P. and Artursson, P.** Targeted gene delivery with trisaccharide-substituted chitosan oligomers *in vitro* and after lung administration *in vivo*. *Journal of Controlled Release* **115**, **103-112**.
- 2006 **Jakobsen, Ø.M., Benichou, A., Flickinger, M.C., Valla, S., Ellingsen, T.E. and Brautaset, T.** Upregulated transcription of plasmid and chromosomal ribulose monophosphate pathway genes is critical for methanol assimilation rate and methanol tolerance in the methylotrophic bacterium *Bacillus methanolicus*. *J. Bacteriol.* **188**, (8), **3063-3072**.
- 2006 **Mozuraityte, R., Rustad, T. and Storrø, I.** Oxidation of cod phospholipids in liposomes: Effects of salts, pH and zeta potential. *European Journal of Lipid Science and Technology* **108**, **944-950**.
- 2006 **Mozuraityte, R., Rustad, T. and Storrø, I.** Pro-oxidant activity of Fe²⁺ in oxidation of cod phospholipids in liposomes. *Eur. J. Lipid Sci. Technol.* **108**, **218-226**.
- 2006 **Mørch, Y.A., Donati, I., Strand, B.L. and Skjåk-Bræk, G.** Effect of Ca²⁺, Ba²⁺, and Sr²⁺ on alginate microbeads. *Biomacromolecules* **7**, **1471-1480**.
- 2006 **Olsen, Y., Agustí, S., Andersen, T., Duarte, C.M., Gasol, J.M., Gismervik, I., Heiskanen, A.-S., Hoell, E., Kuuppoo, P., Lignell, R., Reinertsen, H., Sommer, U., Stibor, H., Tamminen, T., Vadstein, O., Vaqué, D. and Vidal, M.** A comparative study of responses in planktonic food web structure and function in contrasting European coastal waters exposed to experimental nutrient addition. *Limnol. Oceanogr.* **51**, (1, part 2), **488-503**.

- 2006 **Otterlei, M., Bruheim, P., Ahn, B., Bussen, W., Karmakar, P., Baynton, K. and Bohr, V.A.** Werner syndrome protein participates in a complex with RAD51, RAD54, RAD54B and ATR in response to ICL-induced replication arrest *Journal of Cell Science* **119**, (24), **5114-5123**.
- 2006 **Papakostas, S., Dooms, S., Triantafyllidis, A., Deloof, D., Kappas, I., Dierckens, K., De Wolf, T., Bossier, P., Vadstein, O., Kui, S., Sorgeloos, P. and Abatzopoulos, T.J.** Evaluation of DNA methodologies in identifying *Brachionus* species used in European hatcheries *Aquaculture* **255**, **557-564**.
- 2006 **Rokstad, A.M., Donati, I., Borgogna, M., Oberholzer, J., Strand, B.L., Espevik, T. and Skjåk-Bræk, G.** Cell-compatible covalently reinforced beads obtained from a chemoenzymatically engineered alginate. *Biomaterials* **27**, **4726-4737**.
- 2006 **Sasaki, C., Vårum, K.M., Itoh, Y., Tamoi, M. and Fukamizo, T.** Rice chitinases: sugar recognition specificities of the individual subsites. *Glycobiol.* **16**, (12), **1242-1250**.
- 2006 **Sikorski, P., Sørbotten, A., Horn, S.J., Eijsink, V.G.H. and Vårum, K.M.** *Serratia marcescens* chitinases with tunnel-shaped substrate-binding grooves show endo activity and different degrees of processivity during enzymatic hydrolysis of chitosan. *Biochemistry (Easton)* **45**, (31), **9566-9574**.
- 2006 **Steigedal, M.** The *Azotobacter vinelandii* mannuronan C5-epimerases: their biological functions and new tools useful for their future *in vivo* biotechnological application. Thesis. *Norwegian University of Science and Technology*.
- 2006 **Stibor, H., Gelzleichter, A., Hantzsche, F., Sommer, U., Striebel, M., Vadstein, O. and Olsen, Y.** Combining dialysis and dilution techniques to estimate gross growth rate of phytoplankton and grazing by micro- and mesozooplankton *in situ*. *Archiv für Hydrobiologie* **167**, (1-4), **403-419**.
- 2006 **Sundt-Hansen, L.E., Olsen, Y., Stibor, H., Heldal, M. and Vadstein, O.** Trophic cascades mediated by copepods, not nutrient supply rate, determine the development of picocyanobacteria. *Aquatic Microbial Ecology* **45**, (3), **207-218**.
- 2006 **Søvik, S.L. and Rustad, T.** Effect of season and fishing ground on the activity of cathepsin B and collagenase in by-products from cod species. *LWT* **39**, **43-53**.
- 2006 **Throne-Holst, M., Markussen, S., Winnberg, A., Ellingsen, T.E., Kotlar, H.-K. and Zotchev, S.B.** Utilization of *n*-alkanes by a newly isolated strain of *Acinetobacter venetianus*: the role of two AlkB-type alkane hydroxylases. *Appl. Microbiol. Biotechnol.* **72** (2), **353-360**.
- 2006 **Tøndervik, A., Torgersen, H.R., Botnmark, H.K. and Strøm, A.R.** Transposon mutations in the 5' end of *glnD*, the gene for a nitrogen regulatory sensor, that suppress the osmosensitive phenotype caused by *otsBA* lesions in *Escherichia coli*. *J. Bacteriol.* **188**, (12), **4218-4226**.
- 2006 **Ulland, S., Ian, E., Borg-Karlson, A.-K. and Mustaparta, H.** Discrimination between enantiomers of linalool by olfactory receptor neurons in the cabbage moth *Mamestra brassicae* (L.). *Chemical Senses* **31**, **325-334**.
- 2006 **Vold, I.M.N., Kristiansen, K.A. and Christensen, B.E.** A study of the chain stiffness and extension of alginates, *in vitro* epimerized alginates, and periodate-oxidized alginates using size-exclusion chromatography combined with light scattering and viscosity detectors. *Biomacromolecules* **7**, **2136-2146**.
- 2006 **Volokhan, O., Sletta, H., Ellingsen, T.E. and Zotchev, S.B.** Characterization of the P450 monooxygenase NysL, responsible for C-10 hydroxylation during biosynthesis of the polyene macrolide antibiotic nystatin in *Streptomyces noursei*. *Appl. Environ. Microbiol.* **72**, (4), **2514-2519**.

- 2006 **Vårum, K.M. and Smidsrød, O.** Chitosans. In *Food Polysaccharides and Their Applications*. Edited by Stephen, A.M., Phillips, G.O. and Williams, P.A. CRC Press. **497-520.**
- 2006 **Zotchev, S.B., Stepanchikova, A.V., Sergeyko, A.P., Sobolev, B.N., Filimonov, D.A. and Poroikov, V.V.** Rational design of macrolides by virtual screening of combinatorial libraries generated through in silico manipulation of polyketide synthases. *J. Med. Chem.* **49**, 2077-2087.
- 2006 **Aachmann, F.L., Svanem, B.I.G., Güntert, P., Petersen, S.B., Valla, S. and Wimmer, R.** NMR structure of the R-module. A parallel β -roll subunit from an *Azotobacter vinelandii* mannuronan C-5 epimerase. *J. Biol. Chem.* **281**, (11), 7350–7356.
- 2007 **Aursand, M., Standal, I.B. and Axelson, D.E.** High-resolution ^{13}C nuclear magnetic resonance spectroscopy pattern recognition of fish oil capsules. *J. Agric. Food Chem.* **55**, 38-47.
- 2007 **Ballance, S., Børsheim, K.Y., Inngjerdigen, K., Paulsen, B.S. and Christensen, B.E.** A re-examination and partial characterisation of polysaccharides released by mild acid hydrolysis from the chlorite-treated leaves of *Sphagnum papillosum*. *Carbohydr. Polym.* **67**, 104–115.
- 2007 **Brautaset, T., Jakobsen, Ø.M., Josefsen, K.D., Flickinger, M.C. and Ellingsen, T.E.** *Bacillus methanolicus*: a candidate for industrial production of amino acids from methanol at 50°C. *Appl. Microbiol. Biotechnol.* **74**, 22–34.
- 2007 **Bredholdt, H., Galatenko, O.A., Engelhardt, K., Fjærvik, E., Terekhova, L.P. and Zotchev, S.B.** Rare actinomycete bacteria from the shallow water sediments of the Trondheim fjord, Norway: isolation, diversity and biological activity. *Environ. Microbiol.* **9**, (11), 2756–2764.
- 2007 **Christensen, B.E., Skjåk-Bræk, G. and Smidsrød, O.** Comment and Reply - Comment on "Conformational changes and aggregation of alginic acid as determined by fluorescence correlation spectroscopy". *Biomacromolecules* **8**, 3279.
- 2007 **Claussen, I.C., Strømme, I., Hemmingsen, A.K.T. and Rustad, T.** Relationship of product structure, sorption characteristics, and freezing point of atmospheric freeze-dried foods. *Drying Technology* **25**, 853–865.
- 2007 **Dentini, M., Rinaldi, G., Barbetta, A., Risica, D., Anselmi, C. and Skjåk-Bræk, G.** Ionic gel formation of a (pseudo)alginate characterised by an alternating MG sequence produced by epimerising mannuronan with AlgE4. *Carbohydr. Polym.* **67**, 465–473.
- 2007 **Dikiy, A., Novoselov, S.V., Fomenko, D.E., Sengupta, A., Carlson, B.A., Cerny, R.L., Ginalska, K., Grishin, N.V., Hatfield, D.L. and Gladyshev, V.N.** SelT, SelW, SelH, and Rdx12: Genomics and molecular insights into the functions of selenoproteins of a novel thioredoxin-like family. *Biochemistry* **46**, 6871-6882.
- 2007 **Donati, I., Haug, I.J., Scarpa, T., Borgogna, M., Draget, K.I., Skjåk-Bræk, G. and Paoletti, S.** Synergistic effects in semidilute mixed solutions of alginate and lactose-modified chitosan (chitlac). *Biomacromolecules* **8**, 957-962.
- 2007 **Dooms, S., Papakostas, S., Hoffman, S., Delbare, D., Dierckens, K., Triantafyllidis, A., De Wolf, T., Vadstein, O., Abatzopoulos, T.J., Sorgeloos, P. and Bossier, P.** Denaturing gradient gel electrophoresis (DGGE) as a tool for the characterisation of *Brachionus* sp. strains. *Aquaculture* **262**, 29–40.
- 2007 **Duun, A.S. and Rustad, T.** Quality changes during superchilled storage of cod (*Gadus morhua*) fillets. *Food Chemistry* **105**, 1067–1075.
- 2007 **Einbu, A.** Characterisation of chitin and a study of its acid-catalysed hydrolysis Thesis. Norwegian University of Science and Technology.

- 2007 Einbu, A., Grasdalen, H. and Vårum, K.M. Kinetics of hydrolysis of chitin/chitosan oligomers in concentrated hydrochloric acid. *Carbohydr. Res.* **342**, 1055–1062.
- 2007 Einbu, A. and Vårum, K.M. Depolymerization and de-N-acetylation of chitin oligomers in hydrochloric acid. *Biomacromolecules* **8**, 309–314.
- 2007 Falch, E., Sandbakk, M. and Aursand, M. On-board handling of marine by-products to prevent microbial spoilage, enzymatic reactions and lipid oxidation. In *Maximising the value of marine by-products*. Edited by Shahidi, F. Woodhead Publishing Limited. **47–64**.
- 2007 Falch, E., Størseth, T.R. and Aursand, M. High resolution NMR for studying lipid hydrolysis and esterification in cod (*Gadus morhua*) gonads. *Chemistry and Physics of Lipids* **147**, 46–57.
- 2007 Fjellheim, A.J., Playfoot, K.J., Skjermo, J. and Vadstein, O. *Vibrionaceae* dominates the microflora antagonistic towards *Listonella anguillarum* in the intestine of cultured Atlantic cod (*Gadus morhua* L.) larvae. *Aquaculture* **269**, 98–106.
- 2007 Gallart-Jornet, L., Barat, J.M., Rustad, T., Erikson, U., Escriche, I. and Fito, P. A comparative study of brine salting of Atlantic cod (*Gadus morhua*) and Atlantic salmon (*Salmo salar*). *Journal of Food Engineering* **79**, 261–270.
- 2007 Gallart-Jornet, L., Barat, J.M., Rustad, T., Erikson, U., Escriche, I. and Fito, P. Influence of brine concentration on Atlantic salmon fillet salting. *Journal of Food Engineering* **80**, 267–275.
- 2007 Gallart-Jornet, L., Rustad, T., Barat, J.M., Fito, P. and Escriche, I. Effect of superchilled storage on the freshness and salting behaviour of Atlantic salmon (*Salmo salar*) fillets. *Food Chemistry* **103**, 1268–1281.
- 2007 Greco, L., Capri, E. and Rustad, T. Biochemical responses in *Salmo salar* muscle following exposure to ethynylestradiol and tributyltin. *Chemosphere* **68**, 564–571.
- 2007 Hartono, A., da Silva, E.F., Grasdalen, H. and Svendsen, H.F. Qualitative determination of species in DETA-H₂O-CO₂ system using ¹³C NMR spectra. *Ind. Eng. Chem. Res.* **46**, 249–254.
- 2007 Hultmann, L. and Rustad, T. Effects of temperature abuse on textural properties and proteolytic activities during *post mortem* iced storage of farmed Atlantic cod (*Gadus morhua*). *Food Chemistry* **104**, 1687–1697.
- 2007 Iotti, M., Fava, P., Ballance, S., Christensen, B.E. and Rustad, T. Absorbent pads for food trays made from *Sphagnum* moss. *Italian J. Food Sci.* **104–109**.
- 2007 Jakobsen, A.N., Aasen, I.M. and Strøm, A.R. Endogenously synthesized (-)-proto-quercitol and glycine betaine are principal compatible solutes of *Schizochytrium* sp. strain S8 (ATCC 20889) and three new isolates of phylogenetically related thraustochytrids. *Appl. Environ. Microbiol.* **73**, (18), 5848–5856.
- 2007 Jørgensen, T.E., Sletmoen, M., Draget, K.I. and Stokke, B.T. Influence of oligoguluronates on alginate gelation, kinetics, and polymer organization. *Biomacromolecules* **8**, 2388–2397.
- 2007 Kayitmazer, A.B., Strand, S.P., Tribet, C., Jaeger, W. and Dubin, P.L. Effect of polyelectrolyte structure on protein-polyelectrolyte coacervates: Coacervates of bovine serum albumin with poly(diallyldimethylammonium chloride) versus chitosan. *Biomacromolecules* **8**, 3568–3577.
- 2007 Kostopoulou, V. and Vadstein, O. Growth performance of the rotifers *Brachionus plicatilis*, B. 'Nevada' and B. 'Cayman' under different food concentrations. *Aquaculture* **273**, 449–458.

- 2007 **Lale, R., Tükel, C. and Akcel, M.** Protein profile and plasmid content of *Lactococcus lactis* subsp. *lactis* LL52 and *Lactococcus lactis* subsp. *cremoris* LC79 strains under several stress conditions. *Turk. J. Vet. Anim. Sci.* **31**, (4), **247-252**.
- 2007 **Mozuraityte, R.** Oxidation of marine phospholipids in liposomes. Thesis. *Norwegian University of Science and Technology*.
- 2007 **Myklestad, S.M. and Børrsheim, K.Y.** Dynamics of carbohydrates in the Norwegian Sea inferred from monthly profiles collected during 3 years at 66°N, 2°E. *Marine Chemistry* **107**, **475-485**.
- 2007 **Mørch, Y.A., Donati, I., Strand, B.L. and Skjåk-Bræk, G.** Molecular engineering as an approach to design new functional properties of alginate. *Biomacromolecules* **8**, **2809-2814**.
- 2007 **Nedal, A.** Post-PKS modifications in the biosynthesis of the antifungal antibiotic nystatin. Thesis. *Norwegian University of Science and Technology*.
- 2007 **Nedal, A., Sletta, H., Brautaset, T., S.E.F., B., Sekurova, O.N., Ellingsen, T.E. and Zotchev, S.B.** Analysis of the mycosamine biosynthesis and attachment genes in the nystatin biosynthetic gene cluster of *Streptomyces noursei* ATCC 11455. *Appl. Environ. Microbiol.* **73**, (22), **7400-7407**.
- 2007 **Olsen, Y., Andersen, T., Gismervik, I. and Vadstein, O.** Protozoan and metazoan zooplankton-mediated carbon flows in nutrient-enriched coastal planktonic communities. *MARINE ECOLOGY PROGRESS SERIES* **331**, **67-83**.
- 2007 **Riebroy, S., Benjakul, S., Visessanguan, W., Tanaka, M., Erikson, U. and Rustad, T.** Effect of irradiation on properties and storage stability of Som-fug produced from bigeye snapper. *Food Chemistry* **103**, **274-286**.
- 2007 **Rustad, T.** Physical and chemical properties of protein seafood by-products. In *Maximising the value of marine by-products*. Edited by Shahidi, F. Woodhead Publishing Limited. **3-21**.
- 2007 **Sal, L.S., Aachmann, F.L., Kim, H.-Y., Gladyshev, V.N. and Dikiy, A.** NMR assignments of ¹H, ¹³C and ¹⁵N spectra of methionine sulfoxide reductase B1 from *Mus musculus*. *Biomol NMR Assign* **1**, **131-133**.
- 2007 **Salehi, P., Walker, J., Madsen, K.L., Sigurdson, G.T., Strand, B.L., Christensen, B.E., Jewell, L.D. and Churchill, T.A.** Relationship between energetic stress and pro-apoptotic/cytoprotective kinase mechanisms in intestinal preservation. *Surgery* **141**, (6), **795-803**.
- 2007 **Sikorski, P., Mo, F., Skjåk-Bræk, G. and Stokke, B.T.** Evidence for egg-box-compatible interactions in calcium-alginate gels from fiber X-ray diffraction. *Biomacromolecules* **8**, **2098-2103**.
- 2007 **Sletmoen, M., Skjåk-Bræk, G. and Stokke, B.T.** Macromolecular motion at the nanoscale of enzymes working on polysaccharides. *Lecture Notes in Physics* **711**, **161-180**.
- 2007 **Sletta, H., Tøndervik, A., Hakvåg, S., Aune, T.E.V., Nedal, A., Aune, R., Evensen, G., Valla, S., Ellingsen, T.E. and Brautaset, T.** The presence of N-terminal secretion signal sequences leads to strong stimulation of the total expression levels of three tested medically important proteins during high-cell-density cultivations of *Escherichia coli*. *Appl. Environ. Microbiol.* **73**, (3), **906-912**.
- 2007 **Solgaard, G., Standal, I.B. and Draget, K.I.** Proteolytic activity and protease classes in the zooplankton species *Calanus finmarchicus*. *Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology* **147**, (3), **475-481**.

- 2007 **Throne-Holst, M., Wentzel, A., Ellingsen, T.E., Kotlar, H.K. and Zotchev, S.B.** Identification of novel genes involved in long-chain *n*-alkane degradation by *Acinetobacter* sp. strain DSM 17874. *Appl. Environ. Microbiol.* **73**, (10), **3327–3332**.
- 2007 **Tøndervik, A. and Strøm, A.R.** Membrane topology and mutational analysis of the osmotically activated BetT choline transporter of *Escherichia coli*. *Microbiology* **153**, (3), **803–813**.
- 2007 **Veliyulin, E. and Aursand, I.G.** ¹H and ²³Na MRI studies of Atlantic salmon (*Salmo salar*) and Atlantic cod (*Gadus morhua*) fillet pieces salted in different brine concentrations. *Journal of the Science of Food and Agriculture* **87**, **2676–2683**.
- 2007 **Villas-Boas, S.G. and Bruheim, P.** Cold glycerol–saline: The promising quenching solution for accurate intracellular metabolite analysis of microbial cells. *Analytical Biochemistry* **370**, **87–97**.
- 2007 **Villas-Boas, S.G. and Bruheim, P.** The potential of metabolomics tools in bioremediation studies. *OMICS A Journal of Integrative Biology* **11**, (3), **305-313**.
- 2007 **Wentzel, A., Ellingsen, T.E., Kotlar, H.-K., Zotchev, S.B. and Throne-Holst, M.** Bacterial metabolism of long-chain *n*-alkanes. *Appl. Microbiol. Biotechnol.* **76**, **1209-1221**.
- 2007 **Aachmann, F.L., Fomenko, D.E., Soragni, A., Gladyshev, V.N. and Dikiy, A.** Solution structure of selenoprotein W and NMR analysis of its interaction with 14-3-3 proteins. *J. Biol. Chem.* **282**, (51), **37036-37044**.