

ISSUE 30 (JANUARY-MARCH 2012)



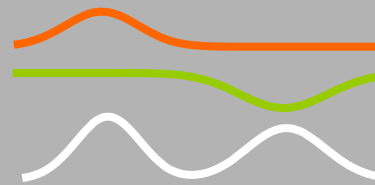
(ABOVE) **EVIM ACAR RECEIVES SAPERE AUDE GRANT**

Higher Education Minister, Morten Østergaard, gave the opening speech at this year's Elite Research conference. HRH Prince Joachim, Morten Østergaard and Chairman of the Independent Research Council, Jens Christian Djurhuus, honored the recipients of the prestigious Sapere Aude research career programme of which Evrim Acar was one. She was awarded for a project on coupled matrix, tensor factorizations - also known as multiblock models

(RIGHT) **EUROPEAN FLAVOUR AWARD FOR NOR**

First year PhD student Nor Qhairul Izzreen Mohd Noor from Q&T has received an award of €3000 from European flavour industries for her PhD study plan "Effect of fermentation conditions on flavour formation in whole grain bread" sponsored by DSM Food Specialists, Frutarom, Givaudan, International Flavours & Fragrances, Kerry Ingredients & Flavours, Kikkoman, Lesaffre International, Nestle and Unilever.





Peer reviewed publications:

Late arrival publications from 2011:

P de la Mata-Espinosa, JM Bosque-Sendra, R Bro, L Cuadros-Rodríguez.

Discriminating olive and non-olive oils using HPLC-CAD and chemometrics. *Analytical and Bioanalytical Chemistry*, 399 (6), 2083–2092, 2011.

JX Wu, M Yang, FWJ van den Berg, J Pajander, T Rades, J Rantanen. Influence of solvent evaporation rate and formulation factors on solid dispersion physical stability. *European Journal of Pharmaceutical Sciences*. 44 (5), 610–620, 2011.

V Sileoni, FWJ van den Berg, O Marconi, G Perretti, P Fantozzi. Internal and external validation strategies for the evaluation of long-term effects in NIR calibration models. *Journal of Agricultural and Food Chemistry*. 59 (5), 1541–1547, 2011.

Y Lee, JX Wub, M Yang, PM Young, FWJ van den Berg, J Rantanen. Particle size dependence of polymorphism in spray-dried mannitol. *European Journal of Pharmaceutical Sciences*. 44 (1-2), 41–48, 2011.

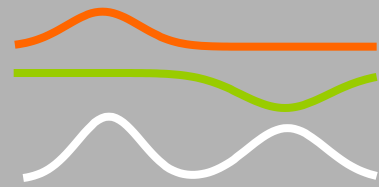
SB Engelsen, F Savaroni, FH Larsen, M Kristensen, AV Astrup. Method for prediction of lipoprotein content from NMR data. *European Patent Office*. 2011.

SB Engelsen, F Savaroni, FH Larsen, M Kristensen, AV Astrup. Method for prediction of lipoprotein content from NMR data. *United States patent application publication*. 2011.

KM Deza-Durand, MA Petersen, M Roepstorff, L Poll. Influence of packaging and storage time on aroma compounds of minimally processed lettuce. *Key food odorants and beyond. Wartburg Symposium on Flavor Chemistry & Biology*. 305-309, 2011.

F Capozzi, A Ciampa, G Picone, G Placucci, F Savorani. Normalization is a necessary step in NMR data processing: Finding the right scaling factors. In: *Magnetic Resonance in Food Science*. 147-160, 2011.

L Munck, BM Jespersen. Adapting cereal plants and human society to a changing climate and economy merged by the concept of self – organization. In: *Barley: Production, Improvement, and Uses*. 563-602, 2011.



Peer reviewed publications:

ES Holm, A Schäfer, T Skov, AG Koch, MA Petersen. Identification of chemical markers for the sensory shelf-life of saveloy. *Meat Science*. 90 (2), 314-322, 2012.

IC Torres, JM Amigo, R Ipsen. Using fractal image analysis to characterize microstructure of low-fat stirred yoghurt manufactured with microparticulated whey protein. *Journal of Food Engineering*. 109 (4), 721–729, 2012.

MG Jensen, JC Knudsen, N Viereck, M Kristensen, A Astrup. Functionality of alginate based supplements for application in human appetite regulation. *Food Chemistry*. 132 (2), 823–829, 2012.

B Smith, S Bodé, TH Skov, H Mirsepasi, G Greisen, KA Krogfelt. Investigation of the early intestinal microflora in premature infants with/without necrotizing enterocolitis using two different methods. *Pediatric Research*. 71 (1), 115-120, 2012.

MM Kasprzak, HN Lærke, FH Larsen, KEB Knudsen, S Pedersen, AS Jørgensen. Effect of enzymatic treatment of different starch sources on the in vitro rate and extent of starch digestion. *International Journal of Molecular Sciences*. 13 (1), 929-942, 2012.

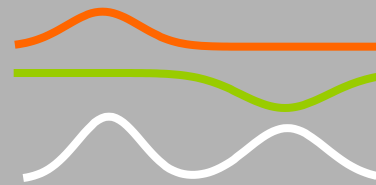
G Gürdeniz, M Kristensen, T Skov, LO Dragsted. The effect of LC-MS data preprocessing methods on the selection of plasma biomarkers in fed vs. fasted rats. *Metabolites*. 2, 77-99, 2012.

I Måge, E Menichelli, T Næs. Preference mapping by PO-PLS: Separating common and unique information in several data blocks. *Food Quality and Preference*. 24 (1), 8–16, 2012.

RM Callejóna, JM Amigo, E Pairoc, S Garmónd, JA Ocana, ML Morales. Classification of Sherry vinegars by combining multidimensional fluorescence, parafac and different classification approaches. *Talanta*. 88, 456– 462, 2012.03.21

N Shetty, Å Rinnan, R Gislum. Selection of representative calibration sample sets for near-infrared reflectance spectroscopy to predict nitrogen concentration in grasses. *Chemometrics and Intelligent Laboratory Systems*. 111, 59–65, 2012.

M Vidal, A Gowen, JM Amigo. NIR hyperspectral imaging for plastics classification. *NIR News*. 23, 13-15, 2012.



Peer reviewed publications:

KM Sørensen, H Petersen, SB Engelsen. An on-line near-infrared (NIR) transmission method for determining depth profiles of fatty acid composition and iodine value in porcine adipose fat tissue. *Applied Spectroscopy*. 66 (2), 218-226, 2012.

NV Følsgaard, BL Chawes, MA Rasmussen, AL Bischoff, CG Carson, J Stokholm, L Pedersen, TT Hansel, K Bønnelykke, S Brix, H Bisgaard. Neonatal cytokine profile in the airway mucosal lining fluid is skewed by maternal atopy. *American journal of respiratory and critical care medicine*. 185 (3), 275-280, 2012.

J Skov, E-M Bladbjerg, MA Rasmussen, JJ Sidelmann, A Leppin, J Jespersen. Genetic, clinical and behavioural determinants of vitamin K-antagonist dose – explored through multivariable modelling and visualization. *Basic & Clinical Pharmacology & Toxicology*. 110, 193–198, 2012.

M Hølse, MA Petersen, GN Maruatona, Å Hansen. Headspace volatile composition and oxidative storage stability of pressed maramba bean (*Tylosema esculentum*) oil. *Food Chemistry*. 132, 1749–1758, 2012.

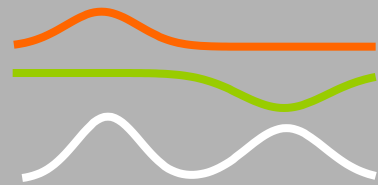
M Kristensen, SB Engelsen, LO Dragsted. LC–MS metabolomics top-down approach reveals new exposure and effect biomarkers of apple and apple-pectin intake. *Metabolomics*. 8 (1), 64–73, 2012.

CB Lyndgaard, SB Engelsen, FWJ van den Berg. Real-time modeling of milk coagulation using in-line near infrared spectroscopy. *Journal of Food Engineering*. 108 (2), 345–352, 2012.

J Szlavik, DS Paiva, N Mørk, FWJ van den Berg, J Verran, K Whitehead, S Knøchel, DS Nielsen. Initial adhesion of *Listeria monocytogenes* to solid surfaces under liquid flow. *International Journal of Food Microbiology*. 152 (3), 181–188, 2012.

P Faubert, P Tiiva, A Michelsen, Å Rinnan, H Ro-Poulsen, R Rinnan. The shift in plant species composition in a subarctic mountain birch forest floor due to climate change would modify the biogenic volatile organic compound emission profile. *Plant Soil*. 352, 199–215, 2012.

M Kompany-Zareh, Y Akhlaghi, R Bro. Tucker core consistency for validation of restricted Tucker3 models. *Analytica Chimica Acta*. 723, 18–26, 2012.



Peer reviewed publications:

LG Rasmussen, H Winning, F Savorani, H Toft, TM Larsen, LO Dragsted, A Astrup, SB Engelsen. Assessment of the Effect of High or Low Protein Diet on the Human Urine Metabolome as Measured by NMR. *Nutrients*. 4 (2), 112-131, 2012.

CB Lyndgaard, SB Engelsen, FWJ van den Berg. Real-time modeling of milk coagulation using in-line near infrared spectroscopy. *Journal of Food Engineering*. 108 (2), 345–352, 2012.

E Acar, GE Plopper, B Yener. Coupled analysis of in vitro and histology tissue samples to quantify structure-function relationship. *PLoS ONE*. 7 (3), 1-14, 2012.

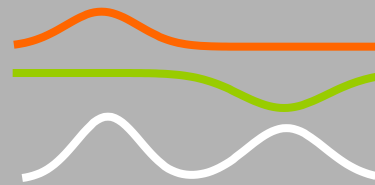
Other publications:

CB Lyndgaard. Mejeriproduktionen kan optimeres med sensor-teknologi og kemometri. *Plus Process*. 12, 24-26, 2012.

MA Petersen, B Pedersen. Forskere skal forbedre kvaliteten af dansk vin. *Plus Proces*. 11, 4, 2012.

R Bro, SB Engelsen, L Nørgaard. EEM + Parafac = Kromatografi. *Dansk Kemi. Det Kemometriske Rum*. 93 (1-2), 32-33, 2012.

R Bro, SB Engelsen, L Nørgaard. Se lyset i osten. *Dansk Kemi. Det Kemometriske Rum*. 93 (3), 33-34, 2012.



Staff:

Assoc. Professor, Mathias Nilsson (until 1/3-15)

Lab trainee, Shirley Sursigis Nielsen (until 31/1-13)

Lab trainee, Andreas Hamilton Rosing Heidemann (until 31/1-13)

PhD defences:

Esben Skibsted (supervisor MA Petersen): Volatile organic compounds as quality markers in cooked and sliced meat, January 20, 2012

Marta Popielarz (supervisor MA Petersen): The effect of ethylene inhibition on “Ildrød Piegon” apples quality and aroma profile, March 30, 2012

Mette Holse (supervisor Å Hansen): The Marama bean – Composition & potential, March 22, 2012

BSc & MSc defences:

BSc: Marie Wolsing Lauesen, (supervisor MA Petersen), Effect of post-tempering on fat bloom in nougat pralines, February 28, 2012.

BSc: Maria Stentebjerg, (supervisor Å Hansen), Leavening methods for wheat bread – and their influence on bread quality, February 17, 2012.

BSc: Gunvor Schjøtt Huusgaard, (supervisor Å Hansen), Antinutrients in Pulses, March 30, 2012.

BSc: Signe Maria Udengård (supervisor MA Petersen), February 28, 2012.

Courses:

Råvarekvalitet (Quality of Raw Products) (AAH, 22 students, block 3)

Process Analytical Technology thematic course (THSK, 5 students, block 3 & 4)

PhD: Preprocessing of quantitative NMR data for Chemometric Analysis (FRSA, 9 students, March)

CHANCE seminar: Design of experiments (JMAR, 20 students, March)

ODIN: Design of experiments (FvdB, 12 students, March)

New granted projects:

-