

ISSUE 43 (APRIL-JUNE 2015)

**SPECC POST DOC BEKZOD KHAKIMOV
RECEIVE THE BEST POSTER PRESENTATION
AWARD AT METABOLOMICS 2015
CONFERENCE IN SAN FRANCISCO.**

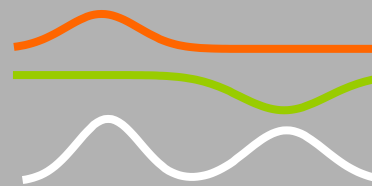
Bekzod received the prize sponsored by the Noble Foundation in absentia. The poster was entitled “The emerging barley seed metabolome studied by mutant analysis: Effects of development stage, genotype and growth temperature”



**PROFESSOR LARS MUNCK'S 80TH
BIRTHDAY CELEBRATION SYMPOSIUM,
JUNE 22ND.**

In front of a nearly full auditorium of friends and old colleagues professor emeritus Lars Munck gave a birthday lecture with the title: “What is basic life?”

Celebration speeches was given by Bo Löfqvist from BoMill (S), Lars Nørgaard (FOSS) and professor Birger Lindberg Møller (KU).



Peer reviewed publications April-June 2015:

JJ Jansen, E Menichelli, T Næs. Modeling target group heterogeneity in experimental consumer studies. *Food Quality and Preference*. 45, 50–57, 2015.

JK Jensen, JM Amigo, SB Engelsen, F van den Berg. Protein residual fouling identification on UF membranes using ATR-FT-IR and multivariate curve resolution. *Chemometrics and Intelligent Laboratory Systems*. 144, 39–47, 2015.

GL Alexandrino, MR Khorasani, JM Amigo, J Rantanen, RJ Poppi. Monitoring of multiple solid-state transformations at tablet surfaces using multi-series near-infrared hyperspectral imaging and multivariate curve resolution. *European Journal of Pharmaceutics and Biopharmaceutics*. 93, 224–230, 2015.

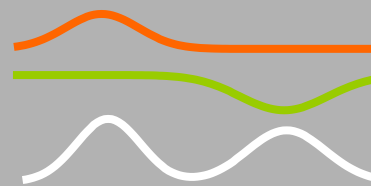
E Garcia, K König, BH Allesen-Holm, IC Klaas, JM Amigo, R Bro, C Enevoldsen. Experienced and inexperienced observers achieved relatively high within-observer agreement on video mobility scoring of dairy cows. *Journal of Dairy Science*. 98 (7), 4560-4571, 2015.

A Gredilla, S Fdez-Ortiz de Vallejuelo, A de Diego, G Arana, T Stoichev, JM Amigo, JC Wasserman, AV Botello, SK Sarkar, J Schäfer, C Moreno, M de la Guardia, JM Madariaga. A chemical status predictor. A methodology based on World-Wide sediment samples. *Journal of Environmental Management*. 161, 21-29, 2015.

M Khorasania, JM Amigo, J Sonnergaard, P Olsen, P Bertelsen, J Rantanena. Visualization and prediction of porosity in roller compacted ribbons with near-infrared chemical imaging (NIR-CI). *Journal of Pharmaceutical and Biomedical Analysis*. 109, 11–17, 2015.

H Babamoradi, H Abdollahi. Study of monoprotic acid–base equilibria in aqueous micellar solutions of nonionic surfactants using spectrophotometry and chemometrics. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 149, 851–859, 2015.

A Bordagaray, JM Amigo. Modelling highly co-eluted peaks of analytes with high spectral similarity. *Trends in Analytical Chemistry*. 68, 107–118, 2015.



Peer reviewed publications April-June 2015:

R Tange, MA Rasmussen, E Taira, R Bro. Application of support vector regression for simultaneous modelling of near infrared spectra from multiple process steps. *Journal of Near Infrared Spectroscopy*. 23, 75–84, 2015.

S Warnecke, Å Rinnan, M Allesø, SB Engelsen. Fluorescence Spectroscopy in Process Analytical Technology (PAT): Simultaneous Quantification of Two Active Pharmaceutical Ingredients in a Tablet Formulation. *Applied Spectroscopy*. 69, (3), 323-331, 2015.

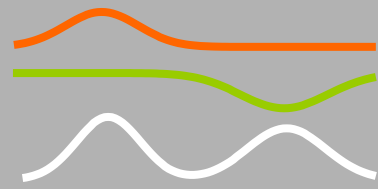
H Sørensen, K Mortensen, GH Sørland, FH Larsen, M Paulsson, R Ipsen. Dynamic ultra-high pressure homogenisation of whey protein depleted milk concentrate. *International Dairy Journal*. 46, 12-21, 2015.

SB Petersen, MA Rasmussen, SF Olsen, P Vestergaard, C Mølgaard, TI Halldorsson, M Strøm. Maternal Dietary Patterns during Pregnancy in Relation to Offspring Forearm Fractures: Prospective Study from the Danish National Birth Cohort. *Nutrients*. 7, 2382-2400, 2015.

P Ebrahimi, F van den Berg, SD Aunbjerg, A Honoré, C Benfeldt, HM Jensen, SB Engelsen. Quantitative determination of mold growth and inhibition by multispectral imaging. *Food Control*. 55, 82-89, 2015.

F Savorani, SB Engelsen. ¹H NMR spectroscopy of lipoproteins – when size matters. In: *Magnetic Resonance in Food Science : Defining Food by Magnetic Resonance*. 349, 211-223, 2015.

PM Santos, RS Amais, LA Colnago, Å Rinnan, MR Monteiro. Time Domain-NMR Combined with Chemometrics Analysis: An Alternative Tool for Monitoring Diesel Fuel Quality. *Energy Fuels*. 29, 2299–2303, 2015.



Other publications incl. media April-June 2015:

R Bro, LO Dragsted. Forskere afslører kræft, flere år før sygdommen viser sig. www.Dagensmedicin.dk. June 5, 2015.

R Bro, LO Dragsted. Videnskabens Verden: Sær metode afslører brystkræft 2-5 år før sygdommen viser sig. www.Dr.dk. March 31, 2015.

R Bro, LO Dragsted. Hevder ny test skal kunne forutse brystkreft. www.TV2.no. April 19, 2015.

R Bro, LO Dragsted. Blood test can predict future breast cancer. www.labnews.co.uk. May 19, 2015.

R Bro, LO Dragsted. New Blood Test Forecasts Breast Cancer Risk. www.iflscience.com. April 16, 2015.

R Bro, LO Dragsted. Sempel blodtest kan afsløre brystkræft. www.Dagens.dk. April 17, 2015.

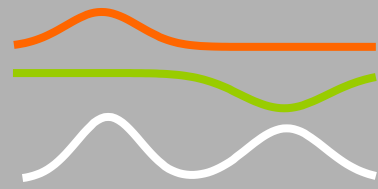
R Bro, LO Dragsted. Forskere: Blodprøve vil kunne forudse brystkræft. www.videnskab.dk. March 31, 2015.

R Bro, LO Dragsted. From Kitchen to Clinic: A new blood test based on food science principles may hold the key to predicting breast cancer earlier than ever. www.thepathologist.com. June 22, 2015.

R Bro, LO Dragsted. Coming This Summer: A Blood Test That Predicts Breast Cancer. www.yahoo.com. April 16, 2015.



Spectroscopy & Chemometrics



Staff:

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Guest Researchers:

- Alessandro Giraud, PhD student 1/6 – 31/7-2015 (host JM Amigo)
- Thomaz Edson Veloso da Silva, 1/5-2015 – 30/4-2016 (host R Bro)
- Luciana Fontes de Oliveira, PhD student 13/4 – 31/8-2015 (host T Skov)
- Sara Giulia Libera Ceriani, PhD student 20/4 – 31/7-2015 (host JM Amigo)
- Ghazaleh Aliakbarzadeh, PhD student 1/4 – 30/9-2015 (host R Bro)
- Zhou Yongqiang, 6/6 – 31/8-2015 (host R Bro)

PhD defenses:

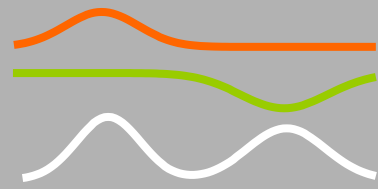
- **Klavs Martin Sørensen** (supervisor SB Engelsen): Process Analytical Technology and on-line spectroscopic measurements of chemical meat quality. April 24th, 2015
- **Jannie Krog Jensen** (supervisor Fvd Berg & SB Engelsen): Investigation of Filtration Membranes from the Dairy Protein Industry for Residual Fouling using Infrared Spectroscopy and Chemometrics. May 28th, 2015

BSc & MSc defenses:

- Signe Maria Udengaard Christensen, MSc (supervisor Å Rinnan): Spectral determination of carotenoids in carrots. April 15th, 2015
- Morten Knudsen, MSc (supervisor FH Larsen): Monitoring of protein degradation by spectroscopy and chemometrics. May 1st, 2015
- Chang Liu, MSc (supervisor FH Larsen): Metabolic profiling of food protective cultures by NMR. June 2nd, 2015



Spectroscopy & Chemometrics



Courses April-June:

Block 4:

- MSc: Process Analytical Chemistry and Technology (Fvd Berg, T Skov, 8 students)
- PhD: Introduction to MATLAB for Multivariate Data Analysis (JM Amigo, 19 students)
- PhD: Advanced MATLAB for Multivariate Data Analysis (JM Amigo, 10 students)
- PhD: Copenhagen School of Chemometrics – CSC 1/6-3/7-2015 (JM Amigo, 40 students)
- ODIN:
- ODIN: (Multivariate) Statistical Process Control 7/5-2015 (H Babamoradi, Fvd Berg, 17 students)
- ODIN: Non-linear modelling 20/5-2015 (R Bro, 10 students)
- ODIN: Basic Chemometrics 11-12/6-2015 (C Svendsen, CE Eskildsen, R Bro, 19 students)

New granted projects:

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