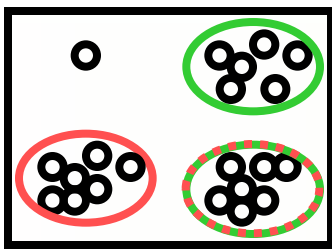


Innovation Prize 2008 awarded to Rasmus Bro by the Faculty of Life Sciences for bridge-building between research and industry

Publications with peer review:

- T. Skov, F. v.d. Berg, G. Tomasi, and R. Bro. Automated alignment of chromatographic data. *J.Chemom.* **20**:484-497, 2006. (lost but not forgotten)
- R. Bro, K. Kjeldahl, A.K. Smilde and H.A.L. Kiers. Cross-validation of component models: A critical look at current methods. *Analytical and Bioanalytical Chemistry* **390**:1241-1251, 2008.
- T. Skov, D. Ballabio, and R. Bro. Multiblock variance partitioning: A new approach for comparing variation in multiple data blocks. *Anal.Chim.Acta* **615**:18-29, 2008.
- B. Schmidt, J. W. Jaroszewski, R. Bro, M. Witt and D. Stærk. Combining PARAFAC Analysis of HPLC-PDA Profiles and Structural Characterization Using HPLC-PDA-SPE-NMR-MS Experiments: Commercial Preparations of St. John's Wort. *Anal.Chem.* **80**:1978-1987, 2008.
- R. Bro, E. M. Qannari, H.A.L. Kiers, T. Næs and M.B. Frøst. Multi-way models for sensory profiling data. *J.Chemom.* **22**:36-45, 2008.
- R. Bro, E. Acar, and T.G. Kolda. Resolving the sign ambiguity in the singular value decomposition. *J.Chemom.* **22**:135-140, 2008.
- J.J. Jansen, R. Bro, H.C.J. Hoefsloot, F. v.d. Berg, J.A. Westerhuis and A.K. Smilde. PARAFASCA: ASCA combined with PARAFAC for the analysis of metabolic fingerprinting data. *J.Chemom.* **22**:114-121, 2008.
- T. Skov and R. Bro. Solving fundamental problems in chromatographic analysis. *Analytical and Bioanalytical Chemistry* **390**:281-285, 2008.
- E. Acar, R. Bro and B. Schmidt. New exploratory clustering tool. *J.Chemom.* **22**:91-100, 2008.
- T. Ohno, A. Amirbahman and R. Bro. Parallel Factor Analysis of Excitation-Emission Matrix Fluorescence Spectra of Water Soluble Soil Organic Matter as Basis for the Determination of Conditional Metal Binding Parameters. *Environmental Science and Technology* **42**:186-192, 2008.
- C.M. Andersen and G. Mortensen. Fluorescence spectroscopy: A rapid tool for analyzing dairy products. *Journal of Agricultural and Food Chemistry* **56**:720-729, 2008
- C.M. Andersen, L.T. Andersen, A.M. Hansen, L.H. Skibsted and M.A. Petersen. Wavelength dependence of light-induced changes of lipid oxidation and naturally occurring photosensitizers in cheese. *Journal of Agricultural and Food Chemistry*, **56**:1611-1618, 2008.
- M.M. Nielsen and Å. Hansen. Rapid High-Performance Liquid Chromatography Determination of Tocopherols and Tocotrienols in Cereals. *Cereal Chemistry*, **85**:248-251, 2008.
- F.H. Larsen, A. Blennow S.B. Engelsen, Starch granule hydration - A MAS NMR investigation, *Food Biophysics* **3**(1):25-32, 2008.
- L. Andrade, I.A. Farhat, K. Aeberhardt, V. Normand and S.B. Engelsen. Characterisation of encapsulated flavour systems by NIR and low-field TD-NMR: a chemometric approach, *Food Biophysics* **3**(1):33-47, 2008.
- H. Winning, F.H. Larsen, R. Bro and S.B. Engelsen. Quantitative analysis of NMR spectra with chemometrics, *Journal of Magnetic Resonance* **190**(1):26-32, 2008.
- S. Kreuzmann, L.P. Christensen and M. Edelenbos. Investigation of bitterness in carrots (*Daucus carota L.*) based on quantitative chemical and sensory analyses. *LWT* **41**:193-205, 2008.



Other Publications:

- C.L. Hansen, F. van den Berg, C.B. Zachariassen & S.B. Engelsen. Proces Analytisk Teknologi i mejeriindustrien, *Mælkeritidende* (2008), **6**, 128-130.
- L. Nørgaard, S.B. Engelsen and R. Bro. Det Kemometriske Rum – Hvorfor multivariat dataanalyse? *Dansk Kemi* (2007), **88**(12), 32-33.
- L. Nørgaard, S.B. Engelsen and R. Bro. Det Kemometriske Rum – Principal Component Analysis – den kemometriske arbejdshest. *Dansk Kemi* (2008), **89**(1), 33-35.
- L. Nørgaard, S.B. Engelsen and R. Bro. Det Kemometriske Rum – Principal Component Analysis af nærinfrarøde spektroskopiske data, *Dansk Kemi* (2008), **89**(2), 30-32.
- L. Nørgaard, S.B. Engelsen and R. Bro. Det Kemometriske Rum – Outliers i Principal Component Analysis – fokus på individet. *Dansk Kemi* (2008), **89**(3), 14-16.
- V.T. Svensson and C.B. Zachariassen. DSK: Dating Symposium for Kemometrikere? *Dansk Kemi* (2008), **89**(3), 7-9.
- E. Tønning, L. Nørgaard, S.B. Engelsen, L. Pedersen and K.H. Esbensen. Single-kernel near infrared analysis of bulk wheat heterogeneity – a theory of sampling reference study. *NIR News* (2008), **19**(1), 4-7.
- B. Pedersen. Dansk fødevarerforskning er kommet helt i front. *Biotech & Diagnostik* 1:February 2008,

Ph.D. defence:

Bonnie Schmidt - Chemometric Methods Applied to Herbal Medicinal Products: St. John's Wort – 29.02.08 (Co-supervisor: R. Bro)

M.Sc. defences:

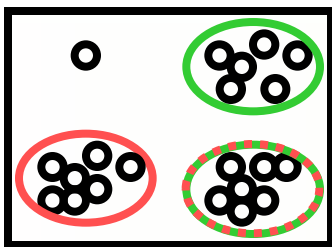
- Pernille Schrøder Andersen** (Toms Group A/S) - Why Do Some Liquorice Pastilles Turn Grey? Co-supervisors: N. Viereck, T.Skov – 29.02.08
- Maria Stenstrup Gjellerup** (Ferrosan A/S) - Structural and Chemical Characterization of Haemostatic Products Using NMR Spectroscopy. Co-supervisor: FH. Larsen – 14.03.08

Staff:

- Karla Deza Durand** (Jan 08 – Dec 10) PhD student – Factors important for the shelf-life of minimally processed vegetable products Supervisor: MA Petersen
- Bonnie Schmidt** (Jan – Dec 2008) – post doc
- Abdelrhani Mourhib** (Feb 08 – Jan 09) – lab technician trainee
- Mette Skau Nielsen** (Feb 08 – Jan 11) PhD student – Functional and nutritional characterization of cereal β -glucans. Supervisor: SB Engelsen
- Minah Mosele** (Mar 08 – Feb 11) PhD student – Supervisor: Å Hansen
- Elisabeth Micklander** (1.3 – 31.7.08) – post doc
- Keld Balling** left our group after completing his lab technician training (Jan 31)

Guest Researchers:

- José Manuel Prats Montalban** (Jan) from Universidad Politécnica de Valencia, Spain – working with R. Bro
- Manel Bautista Mercader** (Jan) from Universitat Autònoma de Barcelona, Spain – working on pharmaceutical data with J.M. Amigo
- Gianfranco Picone** (Mar – Jun) PhD student from the University of Bologna, Italy doing research based on the statistical analysis of HR-NMR data of fish samples – with F. Savorani and S.B. Engelsen
- Jacopo Ianieri** (Mar – Jun) MSc student from the University of Bologna, Italy working on NMR data of grape extracts from wild and genetically modified plants – with F. Savorani and S.B. Engelsen



New Projects:

Carbohydrates in Marama beans. A PhD project for Minah Mosele financed by the Ministry of Communication, Science and Technology of Botswana. Supervisor Åse S. Hansen

Courses:

Multi-way Analysis - PhD course - 14/1-1/2/08 - 16 participants. R. Bro

Råvarekvalitet (Quality of Raw Products) block 3 - 36 participants. Contributing lecturer: Å. Hansen

Aroma and Instrumental Quality Analysis of Processed Plant Foods – blocks 3 & 4 – 20 participants. M.A. Petersen & Å. Hansen

Chemometrics (for industry) (Jan 14-15) - 12 participants – T. Skov & K. Kjeldahl

ODIN (hosting MUST A/S) – Data Integration (Feb. 6) – 12 participants

Process Analytical Technology - blocks 3 & 4 - 5 participants. R. Bro

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