

BrewingScience

Monatsschrift für Brauwissenschaft

Yearbook 2015

The scientific publisher of
European Brewery Convention (EBC), Brussels, Belgium
Wissenschaftsförderung der Deutschen Brauwirtschaft e. V., Berlin, Germany

www.brewingscience.de
www.brewingscience.net
www.brauwissenschaft.de

Contents

Feasibility Study using a Novel Desorption/Absorption Process for Transferring Hop Volatiles to Beer

P. C. Wietstock, F. Götz, R. Klie, F.-J. Methner and H. Scheuren...01

Comparison of the Analytical Profiles of Volatiles in Single-Hopped Worts and Beers as a Function of the Hop Variety

M. Dresel, T. Praet, F. Van Opstaele, A. Van Holle, D. Naudts, D. De Keukeleire, L. De Cooman and G. Aerts.....08

The Cleaning Effect on Brewing Barley Using Vibrations during Wet Steeping

C. Müller, T. Kunz and F.-J. Methner.....29

Comparison of Structure, Sequence, Physical Interactions and its Effects on Primary Gushing among Several Class II Hydrophobins

D. Riveros G., Z. Shokribousjein, P. Losada-Pérez, M. Rheza Khaledi, K. Cordova, C. Michiels, J. A. Delcour, H. Verachtert, P. Wagner and G. Derdelinckx.....38

Characterization of Different Bottom Fermenting *Saccharomyces pastorianus* Brewing Yeast Strains

K. Müller-Auffermann, A. Caldera, F. Jacob and M. Hutzler.46

Improving Resistance to Aging and Increasing Haze Stability in Southern German Wheat Beer Through Process Optimization

R. Feilner and F. F. Jacob.....58

Evaluation of Mashing Attributes and Protein Profile Using Different Grist Composition of Barley and Wheat Malt

A. Faltermaier, J. Negele, T. Becker, M. Gastl and E. Arendt..67

Carbohydrates Addition during Brewing – Effects on Oxidative Processes and Formation of Specific Ageing Compounds

T. Kunz, N. O. Brandt, T. Seewald and F.-J. Methner.....78

Influence of Malt Modifications on the Concentrations of Free Phenolic Acids in Wheat and Barley Malts

D. Langos, M. Granvogl, M. Gastl and P. Schieberle93

Determination of Bisphenols, Bisphenol A Diglycidyl Ether (BADGE), BADGE Chlorohydrins and Hydrates from Canned Beer by High-Performance Liquid Chromatography Tandem Mass Spectrometry

J. Zech, A. Manowski, S. Malchow, N. Rettberg and L.-A. Garbe102

Brettanomyces Bruxellensis, Essential Contributor in Spontaneous Beer Fermentations Providing Novel Opportunities for the Brewing Industry

S. Crauwels, J. Steensels, G. Aerts, K. A. Willems, K. J. Verstrepen and B. Lievens.....110

Impact of Fatty Acids and Medium Chain Fatty Acid Ethyl Esters on the Beer Crossflow Membrane Filtration

M. Kupetz, M. Weber, H. Kollmannsberger, B. Sacher and T. Becker122

De novo Formation of Sesquiterpene Oxidation Products during Wort Boiling and Impact of the Kettle Hopping Regime on Sensory Characteristics of Pilot-Scale Lager Beers

T. Praet, F. van Opstaele, B. de Causmaecker, G. Bellaio, G. de Rouck, G. Aerts and L. de Cooman.....130

The Behaviour of the Stereoisomers of Linalool During Beer Ageing

A. Forster, A. Gahr, R. Schmidt and A. Faltermeier146

Ultrastructure Studies of the Lupulin Glands of Different Hop (*Humulus lupulus* L.) Varieties Observed by Scanning Electron Microscope

C. Almaguer, F. Thiele, C. Schönberger and E. K. Arendt.....153