

Analysis of Xanthophylls in Food and their Behaviour during Human Digestion

**Dissertation zur Erlangung des Doktorgrades
der Naturwissenschaften (Dr. rer. nat.)**

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vorgelegt von
Jörg Schlatterer

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Dekan:	Prof. Dr. Heinz Breer
1. berichtende Person:	PD Dr. Dietmar E. Breithaupt
2. berichtende Person:	Prof. Dr. Tilman Grune
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Full Papers

1. J Schlatterer, DE Breithaupt: Cryptoxanthin Structural Isomers in Oranges, Orange Juice and Other Fruits. *J. Agric. Food Chem.* **2005**, 53, 6355-6361.
2. J Schlatterer, DE Breithaupt: Xanthophylls in Commercial Egg Yolks: Quantification and Identification by HPLC and LC-(APCI)MS using a C₃₀ Phase. *J. Agric. Food Chem.* **2006**, 54, 2267-2273.
3. J Schlatterer, DE Breithaupt, M Wolters, A Hahn: Plasma responses in human subjects after ingestions of multiple doses of natural α -cryptoxanthin: a pilot study. *Br. J. Nutr.* **2006**, 96, 371-376.
4. J Schlatterer, S Maurer, DE Breithaupt: Quantification of 3*R*,3'*R*-zeaxanthin in plant derived food by a diastereomeric dilution assay applying chiral high-performance liquid chromatography. *J. Chromatogr. A* **2006**, 1137, 216-222.

Oral Presentations

1. J Schlatterer, DE Breithaupt: Stability of xanthophylls in egg yolks during conventional cooking. 4th International Congress on Pigments in Food, Stuttgart-Hohenheim, Germany, October 9 - 12, 2006.
2. J Schlatterer, DE Breithaupt: Neue Methoden in der Carotinoidanalytik. Jahrestagung des Regionalverbandes Süd-West der Lebensmittelchemischen Gesellschaft, Gießen, Germany, March 5 - 6, 2007.

Poster Presentations

1. J Schlatterer, DE Breithaupt: Cryptoxanthinisomere - Analytik und Vorkommen in Lebensmitteln. 33. Deutscher Lebensmittelchemikertag, Bonn, Germany, September 13 - 15, 2004.
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2. J Schlatterer, DE Breithaupt: Zeinoxanthin and β -cryptoxanthin: Two xanthophylls useful to distinguish fresh orange juice from reconstituted juice? 14th International Carotenoid Symposium, Edinburgh, Great Britain, July 17 - 22, 2005.
3. J Schlatterer, DE Breithaupt: Orange juice - a rich source of β -cryptoxanthin and zeinoxanthin fatty acid esters. 34. Deutscher Lebensmittelchemikertag, Hamburg, Germany, September 19 - 21, 2005; combined with: EURO FOOD CHEM XIII, September 21 - 23, 2005.
Abstract: *Macromolecules and their degradation products in food - physiological, analytical and technological aspects*. T Eklund, M Schwarz, H Steinhart, H-P Thier, P Winterhalter (Eds.), Gesellschaft Deutscher Chemiker e.V., Frankfurt am Main, **2005**, 2, 377-379.
4. J Schlatterer, S Maurer, DE Breithaupt: Quantifizierung von Zeaxanthin in Lebensmitteln mittels Diastereomeren-Verdünnungsanalyse (DIVA) und chiraler HPLC. 35. Deutscher Lebensmittelchemikertag, Dresden, Germany, September 18 - 20, 2006.
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