Enzymatic Hydrolysis of Carotenoid Fatty Acid Esters of Red Pepper (*Capsicum annuum* L.) by a Lipase from *Candida rugosa*

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Analyses of red pepper extracts which had been pretreated with lipase type VII (EC 3.1.1.3.) from *Candida rugosa* showed for the first time pepper carotenoid esters to be substrates of this enzyme. However, the extent of enzymatic hydrolysis depends on the respective carotenoid and was not quantitative compared to chemical saponification. After enzymatic cleavage, 67–89% of total capsanthin, 61–65% of total zeaxanthin, 70–81% of total β-cryptoxanthin and 70–86% of total violaxanthin were detected in free form. Nevertheless, the method described here offers the possibility to cleave in part several carotenoid esters originating from red pepper quickly and under comparatively mild reaction conditions. Replacement of the generally performed alkaline hydrolysis by enzymatic cleavage allows the resulting product to be used in food industry as "natural" coloring agent e.g. to colour cheese and jellies.