

Aus dem Institut für Humanernährung und Lebensmittelkunde
der Christian-Albrechts-Universität zu Kiel

**Antioxidative compounds of rapeseed oil by-products for stabilization
of rapeseed bulk oil and emulsion**

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der Christian-Albrachts-Universität zu Kiel

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List of abbreviations

Ace	Aceton
ANOVA	Analysis of variance
AH	Antiradical
alpha-toco	Alpha-tocopherol
BaSO ₄	Barium sulphate
BHA	Butylated hydroxyanisole
BHT	Butylated hydroxytoluene
CA	Caffeic acid
CCD	Central composite design
CD	Conjugated diene
di	Desirability
dm	Defatted meal
DOE	Design of experiments
DPPH	1,1 diphenyl-2-picrylhydrazyl
E	Extinction
Eta	Ethyl acetate
EtOH	Ethanol
Fe	Iron
FEA	Ferulic acid
gamma-toco	Gamma-tocopherol
GC	Gas chromatography
GP	Sinapoyl glucose
H	Hour
H ₂ O	Water
HCl	Hydrochloric acid
HPLC	High performance liquid chromatography
HSGC	Headspace gas chromatography
Iso	Isopropanol
MeOH	Methanol
min	Minute
MMT	Million metric tons
MS	Mean square
MW	Microwave
n-3	Omega-3

NaHCO ₃	Sodium bicarbonate
p CA	p-Coumaric acid
Pd	Palladium
PF	Potection factor
PRESS	Predicted residual sum of squares
PV	Peroxide value
R	Radical
ROS	Reactive oxygen species
RSM	Response surface design
RSM	Response surface methodology
SA	Sinapic acid
SAE	Sinapic acid equivalent
SiE	Sinapine equivalent
SS	Sum of squares
SP	Sinapine
SPE	Solid phase extraction
Toco-mix	Gamma/alpha tocopherol mixture

