

**Georg-August-Universität Göttingen**  
**Department für Nutzpflanzenwissenschaften**  
**Abt. Qualität und Sensorik pflanzlicher Erzeugnisse**

**Verzeichnis der Veröffentlichungen**  
**(List of publications)**

**2010 – 2024**

**2024**

W Liu, A Havlikova, G Giuriani, D Li, DJ Lamont, **S Neugart**, CN Velanis, J Petersen, JM Christie, GI Jenkins, Phosphorylation of UVR8 photoreceptor modulates plant responses to UV light, *Nature Communications* 15 (2024), 1221. <https://doi.org/10.1038/s41467-024-45575-7>

J Mörlein, S Wessel, **S Neugart**, **T Pöhnl**, 2024, Masking of bitter sesquiterpene lactones in lettuce (*Lactuca sativa* L.) by apple juice (*Malus domestica* Borkh.) in green smoothies., *NFS J.*,36, 100190, <https://doi.org/10.1016/j.nfs.2024.100190>

LBS Nascimento, A Gorla, L Cavigli, G Marino, C Brunetti, M Haworth, F Micheletti, **T Pöhnl**, **S Neugart**, G Agati, UVB treatments of packaged ready-to-eat salads: Induced enhancement of quercetin derivatives in baby-leaf lettuce (*Lactuca sativa* L.) and wild rocket (*Diplotaxis tenuifolia* L.). *Postharvest Biology and Technology* 207 (2024), 112606. <https://doi.org/10.1016/j.postharvbio.2023.112606>

**S Neugart**, V Steininger, C Fernandes, J Martínez-Abaigar, E Núñez-Olivera, M Schreiner, Å Strid, A Viczián, A Albert, F.R. Badenes-Pérez, A Castagna, B Dáder, A Ferreres, A Gaberscik, Á Gulyás, D Gwynn-Jones, F Nagy, A Jones, R Julkunen-Tiitto, N Konstantinova, K Lakkala, L Llorens, J Martínez-Lüscher, L Nybakken, J Olsen, I Pascual, A Ranieri, N Regier, M Robson, E Rosenqvist, M Santin, M Turunen, F Vandebussche, D Verdaguer, B Winkler, K Witzel, D Grifoni, G Zipoli, Éva Hideg, M.A.K. Jansen, MT Hauser, A synchronized, large-scale field experiment using *Arabidopsis thaliana* reveals the significance of the UV-B photoreceptor UVR8 under natural conditions, *Plant, Cell & Environment* (2024), 1–17. <https://doi.org/10.1111/pce.15008>

TM Osaili, A Swaidan, A Al-Nabulsi, A Olaimat, **S Neugart**, **L Engelhardt**, T Esatbeyoglu, M Ayyash, LC Ismail, MM Al-Dabbas, RS Obaid, N El Darra, Assessment of the Phenolic Profile and Biological Activities of Aqueous Date Seed Extracts: A Comparative Analysis, *Applied Food Research* 4 (2024), 100493. <https://doi.org/10.1016/j.afres.2024.100493>

D Plamada, M Arlt, D Gueterbock, R Sevenich, C Kanzler, **S Neugart**, DC Vodnar, H Kieserling, S Rohn, Impact of Thermal, High-Pressure, and Pulsed Electric Field Treatments on the Stability and Antioxidant Activity of Phenolic-Rich Apple Pomace Extracts, *Molecules* (2024), 29(24), 5849; <https://doi.org/10.3390/molecules29245849>

NS Rabitti, S Bayudan, M Laureati, **S Neugart**, JJ Schouteten, L Apeleman, S Dahlstedt, P Sandvik, Snacks from the sea: a cross national comparison of consumer acceptance for crackers added with algae, *European Food Research and Technology* 250 (2024), 2193–2209. <https://doi.org/10.1007/s00217-024-04530-y>

S Rogge, **S Neugart**, M Schreiner, R Meyhoefer, Phenolic Compounds in Different Stages of Ontogenesis in Chrysanthemum—A Potential for Thrips-Resistance Characterisation, *Horticulturae* 10 (2024), 822. <https://doi.org/10.3390/horticulturae10080822>

H Tannir, E Debs, G Mansour, **S Neugart**, R El Hage, M.I. Khalil, N El Darra, N Louka, Microbial Decontamination of Cuminum cyminum Seeds Using “Intensification of Vaporization by Decompression to the Vacuum”: Effect on Color Parameters and Essential Oil Profile, *Foods* 13 (2024), 2264. <https://doi.org/10.3390/foods13142264>

CF Wessler, M Weiland, S Einfeldt, M Wiesner-Reinhold, M Schreiner, **S Neugart**, The effect of supplemental LED lighting in the range of UV, blue, and red wavelengths at different ratios on the accumulation of phenolic compounds in pak choi and swiss chard, *Food Research International* 200: 1-3, <https://doi.org/10.1016/j.foodres.2024.115438>

## 2023

**F Sonntag, H Liu, S Neugart**, Nutritional and physiological effects of postharvest UV radiation on vegetables: A review, *Journal of Agricultural and Food Chemistry* 71 (2023), 9951-9972; <https://doi.org/10.1021/acs.jafc.3c00481>

M Weiland, CF Weßler, T Filler, J Glaab, N Lobo Ploch, U Winterwerber, M Wiesner-Reinhold, M Schreiner, **S Neugart**, A comparison of consistent UV treatment versus inconsistent UV treatment in horticultural production of lettuce, *Photochemical and Photobiological Sciences* 22 (2023), 1611-1624; <https://doi.org/10.1007/s43630-023-00402-8>

N Rai, **S Neugart**, D Schröter, AV Lindfors, PJ Aphalo, Responses of flavonoids to solar UV radiation and gradual soil drying in two *Medicago truncatula* accessions, *Photochemical and Photobiological Sciences* 22 (2023), 1637-1654; <https://doi.org/10.1007/s43630-023-00404-6>

**N Laurenčíková, M Živčák, S Neugart, T Pöhnl**, Influence of UV radiation-absorbing foils on secondary plant metabolites in three lettuce cultivars (*Lactuca sativa* L. and *Cichorium intybus* L.). *Frontiers in Food Science and Technology* 3 (2023), 1208100. <https://doi.org/10.1016/j.postharvbio.2023.112606>

H Pöhnl, **T Pöhnl**, Applications of different curing approaches and natural colorants in meat products. In: *Handbook on Natural Pigments in Food and Beverages – Industrial Applications for Improving Food Color* (2nd Edition). (Eds. Carle, R., Schweiggert, R.M.), Elsevier, 295-315 (2023). (ISBN: 978-0-323-99609-9 (online))

**L Engelhardt, T Pöhnl**, M Alhussein, M John, **S Neugart**, Changes in bioactive compounds and antioxidant activity of three *Amaranthus* L. genotypes from a model to household processing. *Food Chemistry* 429 (2023), 136891 <https://doi.org/10.1016/j.foodchem.2023.136891>

J Warner, **T Pöhnl**, CB Steingass, D Bogarín, R Carle, VM Jiménez, Pectins, hemicellulose and lignocellulose profiles vary in leaves among different aromatic *Vanilla* species (Orchidaceae). *Carbohydrate Polymer Technologies and Applications* 5 (2023), 100289. <https://doi.org/10.1016/j.carpta.2023.100289>

## 2022

A Brugger, FI Yamati, A Barreto, S Paulus, P Schramowski, K Kersting, U Steiner, **S Neugart**, AK Mahlein, Hyperspectral imaging in the UV-range allows for differentiation of sugar beet diseases based on changes of secondary plant metabolites, *Phytopathology* 113 (2022), 44-54; <https://doi.org/10.1094/phyto-03-22-0086-r>

HR Nadeem, S Akhtar, P Sestili, T Ismail, **S Neugart**, M Qamar, T Esatbeyoglu, Toxicity, Antioxidant activity, and phytochemicals of basil (*Ocimum basilicum* L.) leaves cultivated in Southern Punjab, Pakistan, *Foods* 11 (2022), 1-13; <https://doi.org/10.3390/foods11091239>

**L Engelhardt, T Pöhl, S Neugart**, Edible Wild Vegetables *Urtica dioica* L. and *Aegopodium podagraria* L.—Antioxidants Affected by Processing. *Plants* 11 (2022), 2710. <https://doi.org/10.3390/plants11202710>

**M Bayer, S Neugart, T Pöhl**, Influence of urban gardening conditions on the concentration of antioxidant secondary plant metabolites in kale. *Journal of Applied Botany and Food Quality* 2022, 95, 85 – 93. <https://ojs.openagrar.de/index.php/JABFQ/article/view/16427>

## 2021

**S Neugart**, MA Tobler, PW Barnes, The Function of Flavonoids in the Diurnal Rhythm under Rapidly Changing UV Conditions—A Model Study on Okra, *Plants* 10 (2021), 2268. <https://doi.org/10.3390/plants10112268>

**L Engelhardt**, T Pöhl, S Neugart. Interactions of Ascorbic Acid, 5-Caffeoylquinic Acid, and Quercetin-3-Rutinoside in the Presence and Absence of Iron during Thermal Processing and the Influence on Antioxidant Activity. *Molecules* 2021, 26, 7698. <https://doi.org/10.3390/molecules26247698>

**S Neugart**, MA Tobler, PW Barnes, Rapid adjustment in epidermal UV sunscreen: Comparison of optical measurement techniques and response to changing solar UV radiation conditions, *Physiologia Plantarum* (2021), 1–11. <https://doi.org/10.1111/ppl.13517>

M Wiesner-Reinhold, JV Dutra Gomes, C Herz, HTT Tran, S Baldermann, **S Neugart**, T Filler, J Glaab, S Einfeldt, M Schreiner, E Lamy, Subsequent treatment of leafy vegetables with low doses of UVB-radiation does not provoke cytotoxicity, genotoxicity, or oxidative stress in a human liver cell model, *Food Bioscience* 43 (2021), 101327. <https://doi.org/10.1016/j.fbio.2021.101327>

S Groth, C Budke, T Weber, **S Neugart**, S Brockmann, M Holz, BC Sawadski, D Daum, S Rohn Relationship between Phenolic Compounds, Antioxidant Properties, and the Allergenic Protein Mal d 1 in Different Selenium-Biofortified Apple Cultivars (*Malus domestica*), *Molecules* 26 (2021), 2647 <https://doi.org/10.3390/molecules26092647>

M Darmanin, A Fröhling, S Bußler, J Durek, **S Neugart**, M Schreiner, R Blundell, R Gatt, O Schlüter, VP Valdramidis, Plasma applications for the treatment of bean sprouts: safety, quality and nutritional assessments under aqueous and gaseous set-ups, *Sci Rep* 11, 19681 (2021), <https://doi.org/10.1038/s41598-021-97823-1>

**Pöhnl**, Minor, Sedlmeier, Schweiggert, Carle, Influence of propagation method and storage conditions on fructo-oligosaccharide degradation in onions (*Allium cepa* L.), *Journal of Food Composition and Analysis* 103 (2021), 104102 <https://doi.org/10.1016/j.jfca.2021.104102>

**S Neugart**, C Bumke-Vogt, Flavonoid glycosides in Brassica species respond to UV-B dependent on exposure time and adaptation time, *Molecules* 26 (2021), 494 <https://doi.org/10.3390/molecules26020494>

**S Neugart**, P Majer, M Schreiner, É Hideg, Blue light treatment, but not green light treatment after pre-exposure to UV-B stabilizes flavonoid glycoside changes and corresponding biological effects in three different Brassicaceae sprouts, *Frontiers in Plant Science* 11 (2021), 611247 <https://doi.org/10.3389/fpls.2020.611247>

## 2020

O Sytar, M Zivcak, **S Neugart**, M Brestic, Assessment of hyperspectral indicators related to the content of phenolic compounds and multispectral fluorescence records in chicory leaves exposed to various light environments, *Plant Physiology and Biochemistry* 154 (2020), 429-438 <https://doi.org/10.1016/j.plaphy.2020.06.027>

I Weindl, M Ost, P Wiedmer, M Schreiner, **S Neugart**, R K, H K, W Kloas, IM Henkel, O Schlüter, S Bußler, SD Bellingrath-Kimura, H Maj, T Grune, S Rolinska, S Klaus, Sustainable food protein supply reconciling human and ecosystem health: A Leibniz Position, *Global Food Security* 25 (2020), 100367S <https://doi.org/10.1016/j.gfs.2020.100367>

L Llorens, **S Neugart**, F Vandenbussche, A Castagna, Editorial: Ultraviolet radiation: friend or foe for plants?, *Frontiers in Plant Science* 11 (2020), 541 doi: [10.3389/fpls.2020.00541](https://doi.org/10.3389/fpls.2020.00541)

**S Neugart**, É Hideg, G Czégény, M Schreiner, Å Strid, Ultraviolet-B radiation exposure lowers the antioxidant capacity in the *Arabidopsis thaliana* pdx1.3-1 mutant and leads to glucosinolate biosynthesis alteration in both wild type and mutant, *Photochemical & Photobiological Sciences* 19 (2020), 217-228 <https://doi.org/10.1039/C9PP00342H>

S Groth, C Budke, **S Neugart**, S Ackermann, FS Kappenstein, D Daum, S Rohn, Influence of a selenium biofortification on antioxidant properties and phenolic compounds of apples (*Malus domestica*), *Antioxidants* 9 (2020), 187 <https://doi.org/10.3390/antiox9020187>

Y Yan, FL Stoddard, **S Neugart**, M Oravec, O Urban, VO Sadras, PJ Aphalo, The transgenerational effects of solar short-UV radiation differed in two accessions of *Vicia faba* L. from contrasting UV environments, *Journal of Plant Physiology* 28 (2020), 153145 <https://doi.org/10.1016/j.jplph.2020.153145>

## 2019

C Assumpção, R Assis, V Hermes, A Castagna, A Ranieri, **S Neugart**, S Flores, A Rios, Application of supplemental UV-B radiation in pre-harvest to enhance health-promoting compounds accumulation in green and red lettuce, *Journal of Food Processing and Preservation* 43 (2019), e14213 <https://doi.org/10.1111/jfpp.14213>

R Klopsch, S Baldermann, A Voss, S Rohn, M Schreiner, **S Neugart**, Narrow-banded UVB affects the stability of secondary plant metabolites in kale (*Brassica oleracea* var. *sabellica*) and pea (*Pisum sativum*) leaves being added to lentil flour fortified bread: A novel approach for producing Functional Foods, *Foods* 8 (2019), 4027 <https://doi.org/10.3390/foods8100427>

X Chen, FS Hanschen, **S Neugart**, M Schreiner, S Vargas, B Gutschmann, S Baldermann, Boiling and steaming induced changes in secondary metabolites in three different cultivars of pak choi (*Brassica rapa* subsp. *chinensis*), *Journal of Food Composition and Analysis* 82 (2019), 103232 <https://doi.org/10.1016/j.jfca.2019.06.004>

**S Neugart**, M Tobler, PW Barnes, Different irradiances of UV and PAR in the same ratios alter the flavonoid profiles of *Arabidopsis thaliana* wild-types and UV-signalling pathway mutants *Photochemical & Photobiological Sciences* 18 (2019), 1685-1699 <https://doi.org/10.1039/C8PP00496J>

N Rai, **S Neugart**, Y Yan, F Wang, SM Siipola, A Lindfors, JB Winkler, A Albert, M Brosche, T Lehto, LO Morales, PJ Aphalo, How do cryptochromes and UVR8 interact in natural and simulated sunlight? *Journal of Experimental Botany* 70 (2019), 4975–4990 <https://doi.org/10.1093/jxb/erz236>

O Sytar, M Zivcak, **S Neugart**, PM Toutouchi M Brestic, Precultivation of young seedlings under different color shades modifies the accumulation of phenolic compounds in *Cichorium* leaves in later growth phases, *Environmental and Experimental Botany* 165 (2019), 30-38 <https://doi.org/10.1016/j.envexpbot.2019.05.018>

R Klopsch, S Baldermann, FS Hanschen, A Voss, S Rohn, M Schreiner, **S Neugart**, Brassica-enriched wheat bread: Unraveling the impact of ontogeny and breadmaking on bioactive secondary plant metabolites of pak choi and kale, *Food Chemistry* 295 (2019), 412-422 <https://doi.org/10.1016/j.foodchem.2019.05.113>

M Groenbaek, E Tybirk, **S Neugart**, U Kraemer Sundekilde, M Schreiner, H Lakkenborg Kristensen, Flavonoid glycosides and hydroxycinnamic acid derivatives in baby leaf rapeseed from white and yellow flowering cultivars with repeated harvest in a 2-years field study, *Frontiers in Plant Science* 10 (2019), 355 <https://doi.org/10.3389/fpls.2019.00355>

D Schröter, **S Neugart**, M Schreiner, T Grune, S Rohn, C Ott, Amaranth's 2-caffeoylisocitric acid—An anti-inflammatory caffeic acid derivative that impairs NF-κB signaling in LPS-challenged RAW 264.7 macrophages, *Nutrients* (2019), 11, 571 <https://doi.org/10.3390/nu11030571>

TM Robson, PJ Aphalo, AK Banas, PW Barnes, CC Brelford, GI Jenkins, T Kotilainen, J Labuz, J Martínez-Abaigar, LO Morales, **S Neugart**, M Pieristè, N Rai, F Vandenbussche, MAK Jansen, A perspective on ecologically relevant plant-UV research and its practical application, *Photochemical & Photobiological Sciences* 18 (2019), 970-988 <https://doi.org/10.1039/C8PP00526E>

Y Yan, FL Stoddard, **S Neugart**, VO Sadras, A Lindfors, LO Morales, PJ Aphalo, Responses of flavonoid profile and associated gene expression to solar blue and UV radiation in two accessions of *Vicia faba* L. from contrasting UV environments, *Photochemical & Photobiological Sciences* 18 (2019), 434-447 <https://doi.org/10.1039/C8PP00567B>

T Rodríguez-Calzada, M Qian, Å Strid, **S Neugart**, M Schreiner, I Torres-Pacheco, RG Guevara-González, Effect of UV-B radiation on morphology, phenolic compound production, gene

expression, and subsequent drought stress responses in chili pepper (*Capsicum annuum* L.), Plant Physiology and Biochemistry 134 (2019), 94-102 <https://doi.org/10.1016/j.plaphy.2018.06.025>

**T. Pöhnl**, N. Minor, R.M. Schweiggert, R. Carle, Accumulation of carbohydrates and pungent principles in characteristic seed and set grown onion varieties (*Allium cepa* L.), Journal of Applied Botany and Food Quality 92 (2019), 267 – 273 <https://doi.org/10.5073/JABFQ.2019.092.037>

B. Büssing, F. Hägele, A. Nas, L.-V. Döbert, A. Fricker, E. Dörner, E. Podlesny, J. Aschoff, **T.Pöhnl**, R. Schweiggert, W.F. Fricke, R. Carle, A. Bosity-Westphal, High intake of orange juice and cola differently affects metabolic risk in healthy subjects, Clinical Nutrition 38 (2019), 812-819 <https://doi.org/10.1016/j.clnu.2018.02.028>

## 2018

PW Barnes, MAK Jansen, GI Jenkins, F Vandenbussche, CC Brelford, AK Banaś, W Bilger, A Castagna, D Festi, A Gaberščik, M Germ, A Golob, L Llorens, MT Hauser, J Martinez-Abaigar, LO Morales, **S Neugart**, M Pieristè, N Rai, L Ryan, M Santin, A WR Seddon, J Stelzner, E Tavridou, J Łabuz, TM Robson, The importance and direction of current and future plant-UV research, UV4Plants Bulletin 2018 (2), 19-32 <https://doi.org/10.19232/uv4pb.2018.2.11>

M Santin, **S Neugart**, A Castagna, M Barilari, S Sarrocco, G Vannacci, M Schreiner, A Ranieri, UV-B pre-treatment alters phenolics response to *Monilinia fructicola* infection in a structure-dependent way in peach skin, Frontiers in Plant Science 9 (2018), 1598 <https://doi.org/10.3389/fpls.2018.01598>

N Schlotz, G Odongo, C Herz, H Waßmer, C Kühn, FS Hanschen, **S Neugart**, N Binder, B Ngwene, M Schreiner, S Rohn, E Lamy, Are raw *Brassica* vegetables healthier than cooked ones? A randomized, controlled crossover cancer prevention intervention trial with Ethiopian kale, Nutrients 10 (2018), 1622 <https://doi.org/10.3390/nu10111622>

G Odongo, N Schlotz, S Baldermann, **S Neugart**, B Ngwene, S Schreiner, E Lamy, Effects of *Amaranthus cruentus* L on aflatoxin B1- and oxidative stress induced DNA damage in human liver (HepG2) cells. Food Bioscience 26 (2018), 42-48 <https://doi.org/10.1016/j.fbio.2018.09.006>

R Klopsch, S Baldermann, A Voss, S Rohn, M Schreiner, **S Neugart**, Bread enriched with legume microgreens and leaves - Ontogenetic and baking-driven changes in the profile of secondary plant metabolites. Frontiers in Chemistry 6 (2018), 322 <https://doi.org/10.3389/fchem.2018.00322>

S Baldermann, T Homann, **S Neugart**, FM Chmielewski, KP Götz, K Gödeke, G Huschek, GE Morlock, HM Rawel, Selected plant metabolites involved in oxidation-reduction processes during bud dormancy and ontogenetic development in sweet cherry buds (*Prunus avium* L.), Molecules 23 (2018), 1197 <https://doi.org/10.3390/molecules23051197>

**S Neugart**, S Baldermann, FS Hanschen, R Klopsch, M Wiesner-Reinhold, M Schreiner, The intrinsic quality of brassicaceous vegetables: How secondary plant metabolites are affected by genetic, environmental, and agronomic factors, Scientia Horticulturae 233 (2018), 460-478 <https://doi.org/10.1016/j.scienta.2017.12.038>

**S Neugart**, M Wiesner-Reinhold, K Frede, E Jander, T Homann, H Rawel, M Schreiner, S Baldermann, Effect of solid biological waste compost on the metabolite profile of *Brassica rapa* ssp. *chinensis*, *Frontiers in Plant Science* 9 (2018), 305 <https://doi.org/10.3389/fpls.2018.00305>

M Heinze, FS Hanschen, M Wiesner-Reinhold, S Baldermann, J Gräfe, M Schreiner, **S Neugart**, Effect of developmental stage and reduced UVB and low UV conditions on secondary plant metabolite profiles in pak choi (*Brassica rapa* spp. *chinensis*), *Journal of Agricultural and Food Chemistry* 66 (2018), 1678-1692 <https://doi.org/10.1021/acs.jafc.7b03996>

**S Neugart**, M Schreiner, UVB and UVA as eustressors in horticultural and agricultural crops, *Scientia Horticulturae* 234 (2018), 370-381 <https://doi.org/10.1016/j.scienta.2018.02.021>

D Schröter, S Baldermann, M Schreiner, K Witzel, R Maul, S Rohn, **S Neugart**, Natural diversity of hydroxycinnamic acid derivatives, flavonoid glycosides, carotenoids and chlorophylls in leaves of six different amaranth species, *Food Chemistry* 267 (2018), 376-386 <https://doi.org/10.1016/j.foodchem.2017.11.043>

M Vollmer, S Esders, FM Farquharson, **S Neugart**, SH Duncan, M Schreiner, P Louis, R Maul, S Rohn, Mutual interaction of phenolic compounds and microbiota: Metabolism of complex phenolic apigenin-C- and kaempferol-O-derivatives by human fecal samples, *Journal of Agricultural and Food Chemistry* 66 (2018), 485-497 <https://doi.org/10.1021/acs.jafc.7b04842>

**T. Pöhl**, R.M. Schweiggert, R. Carle, Impact of cultivation method and cultivar selection on soluble carbohydrates and pungent principles in onions (*Allium cepa* L.), *Journal of Agricultural and Food Chemistry* 66 (2018), 12827-12825 <https://doi.org/10.1021/acs.jafc.8b05018>

## 2017

O Rechner, **S Neugart**, M Schreiner, S Wu, HM Poehling, Can narrow-bandwidth light from UV-A to green alter secondary plant metabolism and increase *Brassica* plant defenses against aphids?, *PLOS ONE* 12 (2017), e0188522 <https://doi.org/10.1371/journal.pone.0188522>

B Ngwene, **S Neugart**, S Baldermann, B Ravi, M Schreiner, Intercropping induces changes in specific secondary metabolite concentration in Ethiopian kale (*Brassica carinata*) and African nightshade (*Solanum scabrum*) under controlled conditions, *Frontiers in Plant Science* (2017), 1700 <https://doi.org/10.3389/fpls.2017.01700>

A Castagna, K Csepregi, **S Neugart**, G Zipoli, K Večeřová, G Jakab, J Jug, L Llorens, J Martínez-Abaigar, J Martínez-Lüscher, E Núñez-Olivera, A Ranieri, K Schoedl-Hummel, M Schreiner, P Teszlák, S Tittmann, O Urban, D Verdaguer, MAK Jansen, É Hideg, Environmental plasticity of Pinot noir grapevine leaves: A trans-European study of morphological and biochemical changes along a 1,500-km latitudinal climatic gradient, *Plant, Cell and Environment* 40 (2017), 2790-2805 <https://doi.org/10.1111/pce.13054>

**S Neugart** Analysis of phenolic compounds: which factors to consider?, *UV4Plants Bulletin* 1 (2017), 31-61 <https://doi.org/10.19232/uv4pb.2017.1.13>

K Witzel, N Strehmel, S Baldermann, **S Neugart**, Y Becker, M Becker, B Berger, D Scheel, R Grosch, M Schreiner, S Ruppel, *Arabidopsis thaliana* root and root exudate metabolism is altered by the growth-

promoting bacterium *Kosakonia radicincitans* DSM 16656T, *Plant and Soil* 419 (2017), 557-573  
<https://doi.org/10.1007/s11104-017-3371-1>

EO. Omondi, C Engels, G Nambafu, M Schreiner, **S Neugart**, M Abukutsa-Onyango, T Winkelmann, Nutritional compound analysis and morphological characterization of spider plant (*Cleome gynandra*) - an African indigenous leafy vegetable, *Food Research International* 100 (2017), 284-295  
<https://doi.org/10.1016/j.foodres.2017.06.050>

M Vollmer, D Schröter, S Esders, **S Neugart**, FM Farquharson, SH Duncan, M Schreiner, P Louis, R Maul, S Rohn, Chlorogenic acid versus amaranth's caffeoylisocitric acid – gut microbial degradation of caffeic acid derivatives, *Food Research International* 100 (2017), 375-384  
<https://doi.org/10.1016/j.foodres.2017.06.013>

**S Neugart**, S Baldermann, B Ngwene, J Wesonga, M Schreiner, Indigenous leafy vegetables of Eastern Africa - a source of extraordinary secondary plant metabolites, *Food Research International* 100 (2017), 411-422 <https://doi.org/10.1016/j.foodres.2017.02.014>

GA Odongo, N Schlotz, C Herz, FS Hanschen, S Baldermann, **S Neugart**, B Trierweiler, L Frommherz, CMAP Franz, B Ngwene, AW Luvonga, M Schreiner, S Rohn, E Lamy, The role of plant processing for human the cancer prevention preventive potential by of Ethiopian kale (*Brassica carinata*), *Food & Nutrition Research* 61 (2017), 1-11 <http://dx.doi.org/10.1080/16546628.2017.1271527>

V Mageney, **S Neugart**, DC Albach, A guide to the variability of flavonoids in *Brassica oleracea*, *Molecules* 22 (2017), 252 <https://doi.org/10.3390/molecules22020252>

D Verdaguer, MAK Jansen, L Llorens, LO Morales, **S Neugart**, UV-A radiation effects on higher plants: Exploring the known unknown, *Plant Science* 255 (2017), 72–81  
<https://doi.org/10.1016/j.plantsci.2016.11.014>

**T. Pöhl**, C. Böttcher, H. Schulz, M. Stürtz, S. Widder, R. Carle, R.M. Schweiggert, Comparison of high performance anion exchange chromatography with pulsed amperometric detection (HPAEC-PAD) and ultra-high performance liquid chromatography with evaporative light scattering (UHPLC-ELSD) for the analyses of fructooligosaccharides in onion (*Allium cepa* L.), *Journal of Food Composition and Analysis* 63 (2017), 148-156 <https://doi.org/10.1016/j.jfca.2017.08.001>

## 2016

MÁ Del-Castillo-Alonso, A Castagna, K Csepregi, É Hideg, G Jakab, MAK Jansen, T Jug, L Llorens, A Matai, J Martínez-Lüscher, L Monforte, **S Neugart**, J Olejnickova, A Ranieri, K Schödl-Hummel, M Schreiner, G Soriano, P Teszlak, S Tittmann, O Urban, D Verdaguer, G Zipoli, J Martínez-Abaigar, E Nunez-Olivera, Environmental factors correlated with the metabolite profile of *Vitis vinifera* cv. Pinot noir berry skins along a European latitudinal gradient, *Journal of Agricultural and Food Chemistry* 64 (2016), 8722–8734 <https://doi.org/10.1021/acs.jafc.6b03272>

O Rechner, **S Neugart**, M Schreiner, S Wu, HM Poehling, Different narrow-band light ranges alter plant secondary metabolism and plant defense response to aphids. *Journal of Chemical Ecology* 42 (2016), 989-1003 <https://doi.org/10.1007/s10886-016-0755-2>



J Acharya, O Rechner, **S Neugart**, M Schreiner, HM Poehling, Effects of light-emitting diode treatments on *Brevicoryne brassicae* performance mediated by secondary metabolites in Brussels sprouts, *Journal of Plant Disease and Protection* 123 (2016), 321-330  
<https://doi.org/10.1007/s41348-016-0029-9>

S Baldermann, L Blagojević, K Frede, R Klopsch, **S Neugart**, A Neumann, B Ngwene, J Norkoweit, D Schröter, A Schröter, F Schweigert, M Wiesner, M Schreiner, Are neglected plants the food for the future?. *Critical Reviews in Plant Science* 35 (2016), 106-119  
<https://doi.org/10.1080/07352689.2016.1201399>

**S Neugart**, A Krumbein, R Zrenner, Influence of photosynthetic active radiation and temperature on gene expression leading to accumulation of structurally different flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*). *Frontiers in Plant Science* 7 (2016), Article 326 <https://doi.org/10.3389/fpls.2016.00326>

K Csepregi, **S Neugart**, M Schreiner, É Hideg, Comparative evaluation of total antioxidant capacities of plant polyphenols. *Molecules* 21 (2016), 208 <https://doi.org/10.3390/molecules21020208>

M Groenbaek, S Jensen, **S Neugart**, M. Schreiner, U Kidmose, HL Kristensen, Nitrogen split dose fertilization, plant age and frost effects on phytochemical content and sensory properties of curly kale (*Brassica oleracea* var *sabellica*). *Food Chemistry* 197 (2016), 530-538  
<https://doi.org/10.1016/j.foodchem.2015.10.108>

## 2015

J Zehring, V Reim, D Schröter, **S Neugart**, M Schreiner, S Rohn, R Maul, Identification of novel saponins in vegetable amaranth and characterization of their hemolytic activity. *Food Research International* 78 (2015), 361-368 <https://doi.org/10.1016/j.foodres.2015.09.010>

K Witzel, **S Neugart**, S Ruppel, M Schreiner, M Wiesner, S Baldermann, Recent progress in the use of 'omics technologies in brassicaceous vegetables. *Frontiers in Plant Science* 6 (2015), 244  
<https://doi.org/10.3389/fpls.2015.00244>

**S Neugart**, S Rohn, M Schreiner, Identification of complex, naturally occurring flavonoid glycosides in *Vicia faba* and *Pisum sativum* leaves by HPLC-DAD-ESI-MSn and the genotypic effect on their flavonoid profile. *Food Research International* 76 (2015), 114-121  
<https://doi.org/10.1016/j.foodres.2015.02.021>

S Bußler, WB Herppich, **S Neugart**, M Schreiner, J Ehlbeck, S Rohn, O Schlüter, Impact of cold atmospheric pressure plasma on physiology and flavonol glycoside profile of peas (*Pisum sativum* 'Salamanca'). *Food Research International* 76 (2015), 132-141  
<https://doi.org/10.1016/j.foodres.2015.03.045>

R Julkunen-Tiitto, N Nenadis, **S Neugart**, TM Robson, G Agati, J Vepsäläinen, G Zipoli, L Nybakken, B Winkler, MAK Jansen, Assessing the response of plant flavonoids to UV radiation-an overview of appropriate techniques. *Phytochemistry Reviews* 14 (2015), 273-297  
<https://doi.org/10.1007/s11101-014-9362-4>

## 2014

M Groenbaek, S Jensen, **S Neugart**, M Schreiner, U Kidmose, H Lakkenborg Kristensen, Influence of cultivar and fertilizer approach on curly kale (*Brassica oleracea* var. *sabellica*). I. Genetic diversity reflected in agronomic characteristics and phytochemical concentration. *Journal of Agricultural and Food Chemistry* 62 (2014), 393-402 <https://doi.org/10.1021/jf503096p>

C Scattino, A Castagna, **S Neugart**, HM Chan, M Schreiner, CH Crisosto, P Tonutti, A Ranieri, Post-harvest UV-B irradiation induces changes of phenol contents and corresponding biosynthetic gene expression in peaches and nectarines. *Food Chemistry* 163 (2014), 51-60 <https://doi.org/10.1016/j.foodchem.2014.04.077>

**S Neugart**, M Fiol, M Schreiner, S Rohn, R Zrenner, LW Kroh, A Krumbein, Interaction of moderate UV-B exposure and temperature on the formation of structurally different flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*). *Journal of Agricultural and Food Chemistry* 62 (2014), 4054-4062 <https://doi.org/10.1021/jf4054066>

P Majer, **S Neugart**, A Krumbein, S Schreiner, E Hideg, Singlet oxygen scavenging by leaf flavonoids contributes to sunlight acclimation in *Tilia platyphyllos*. *Environmental and Experimental Botany* 100 (2014), 1-9 <https://doi.org/10.1016/j.envexpbot.2013.12.001>

## 2013

AL McCarthy, YC O'Callaghan, **S Neugart**, CO Pigott, A Connolly, MAK. Jansen, A Krumbein, M Schreiner, RJ FitzGerald; NM O' Brien, The hydroxycinnamic acid content of barley and brewers' spent grain (BSG) and the potential to incorporate phenolic extracts of BSG as antioxidants into fruit beverages. *Food Chemistry* 141 (2013), 2567-2574 <https://doi.org/10.1016/j.foodchem.2013.05.048>

**S Neugart**, M Fiol, M Schreiner, S Rohn, R Zrenner, LW Kroh, A Krumbein, Low and moderate photosynthetically active radiation affects the flavonol glycosides and hydroxycinnamic acid derivatives in kale (*Brassica oleracea* var. *sabellica*) dependent on two low temperatures. *Plant Physiology and Biochemistry* 72 (2013), 161-168 <https://doi.org/10.1016/j.plaphy.2013.04.002>

M Fiol, A Weckmüller, **S Neugart**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Thermal-induced changes of kale's antioxidant activity analyzed by HPLC–UV/Vis-online-TEAC detection. *Food Chemistry* 138 (2013), 857-865 <https://doi.org/10.1016/j.foodchem.2012.10.101>

## 2012

B Li, A Krumbein, **S Neugart**, L Li, M Schreiner, Mixed cropping with maize combined with moderate UV-B radiations lead to enhanced flavonoid production and root growth in faba bean. *Journal of Plant Interactions* 7 (2012), 333-340 <https://doi.org/10.1080/17429145.2012.714407>

M Fiol, S Adermann, **S Neugart**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Highly glycosylated and acylated flavonols isolated from kale (*Brassica oleracea* var. *sabellica*)—Structure-activity relationship. *Food Research International* 47 (2012), 80-89 <https://doi.org/10.1016/j.foodres.2012.01.014>

**S Neugart**, HP Kläring, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Effect of temperature and radiation on flavonol aglycones and flavonol glycosides of kale (*Brassica oleracea* var. *sabellica*). Food Chemistry 133 (2012), 1456-1465 <https://doi.org/10.1016/j.foodchem.2012.02.034>

**S Neugart**, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Structurally different flavonol glycosides and hydroxycinnamic acid derivatives respond differently to moderate UV-B radiation exposure. Physiologia Plantarum 145 (2012), 582-593 <https://doi.org/10.1111/j.1399-3054.2012.01567.x>

## 2010

**S Schmidt**, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Identification of complex, naturally occurring flavonoid glycosides in kale (*Brassica oleracea* var. *sabellica*) by high-performance liquid chromatography diode array detection/electrospray ionization multi-stage mass spectrometry. Rapid Communications in Mass Spectrometry 24 (2010), 2009-2022 <https://doi.org/10.1002/rcm.4605>

M Zietz, A Weckmüller, **S Schmidt**, S Rohn, M Schreiner, A Krumbein, LW Kroh, Genotypic and climatic influence on the antioxidant activity of flavonoids in kale (*Brassica oleracea* var. *sabellica*). Journal of Agricultural and Food Chemistry 58 (2010), 2123-2130 <https://doi.org/10.1021/jf9033909>

**S Schmidt**, M Zietz, M Schreiner, S Rohn, LW Kroh, A Krumbein, Genotypic and climatic influences on the concentration and composition of flavonoids in kale (*Brassica oleracea* var. *sabellica*). Food Chemistry 119 (2010), 1293-1299 <https://doi.org/10.1016/j.foodchem.2009.09.004>