**List of Publications**

1. Vogt, T., **Ibdah, M.,** Schmidt, J., Wray, V., Nimtz, M., and Strack, D. (1999). Light-induced betacyanin and flavonol accumulation in bladder cells of *Mesembryanthemum crystallinum*. *Phytochemistry* 52: 583-592.
2. **Ibdah, M.**, Krins, A., Seidlitz, H.K., Heller, W., Strack, D., and Vogt, V. (2002). Spectral dependence and dose-response of flavonol and betacyanin accumulation in *Mesembryanthemum crystallinum* under enhanced UV radiation. *Plant Cell Environ*. 25: 1145-1154.
3. **Ibdah, M.**, Zhang, X.H., Schmidt, J., and Vogt, T. (2003). A novel Mg++ dependent *O*-methyltransferase in the phenylpropanoid metabolism of *Mesembryanthemum crystallinum.* *J. Biol. Chem*. 278: 43961-43972.
4. Lewinsohn, E., Sitrit, Y., Bar, E., Azulay, Y., **Ibdah, M.**, Meir, A., Yosef, E., Zamir, D., and Tadmor, Y. (2005). Not just colors - carotenoid degradation as a link between pigmentation and aroma in tomato and watermelon fruit. *Trends Food Sci. Tech*. 16: 407-415.
5. **Ibdah, M.**, Azulay, Y., Portnoy, V., Wasserman, B., Bar, E., Meir, A., Burger, Y., Hirschberg, J., Schaffer, A.A., Katzir, N., Tadmor, Y., and Lewinsohn, E. (2006). Functional characterization of *CmCCD1*, a carotenoid cleavage dioxygenase from melon. *Phytochemistry* 67: 1579-89.
6. Koeduka, T., Louie, G.V., Orlova, I., Kish, C.M., **Ibdah, M.**, Wilkerson, C.G., Baiga T.J., Noel, J.P., Dudareva, N., and Pichersky, E. (2008). The multiple phenylpropene synthases in both *Clarkia breweri* and *Petunia hybrida* represent two distinct protein lineages. *Plant J*. 54: 362-374.
7. **Ibdah,** **M.**, Chen, Y.T., Wilkerson, C.G., and Pichersky, E. (2009).An aldehyde oxidase in developing seeds of *Arabidopsis* *thaliana* converts benzaldehyde to benzoic acid. *Plant Physiol*. 150: 416-423.
8. **Ibdah, M.,** and Pichersky, E. (2009). Arabidopsis Chy1 null mutants are deficient in benzoic acid-containing glucosinolates in the seeds. *Plant Biol*. 11: 574-481.
9. Gang, R. D., Davin, L. B., **Ibdah, M.**, Lange, B. M., Norman G. Lewis, G. N., Turner, G. W., Shion, H., Witkop, G., Harris, D., and Alan Millar, A. (2012). Probing medicinal plant phytochemical factories through in situ MALDI tissue imaging using Quadrupole Ion Mobility Time-of-Flight Mass Spectrometry. *Pharmaceutical Biol.,* 50: 567-568.
10. Botnick, I., Xue, W., Bar, E., **Ibdah, M.**, Schwartz, A., Joel, D.M., Lev, E., Fait, A., and Lewinsohn, E. (2012). Distribution of primary and specialized metabolites in *Nigella sativa* seeds, a spice with vast traditional and historical uses. *Molecules* 17: 10159-10177.
11. Serfaty, M., **Ibdah, M.**, Fischer, R., Chaimovitsh, D., Saranga, Y., and Dudai, N. (2013). Dynamics of yield components and stevioside production in *Stevia rebaudiana* grown under different planting times, plant stands and harvest regimes. *Ind. Crop Prod.* 50: 731-736.
12. Shalata, A., Ramirez, M.C., Desnick, R.J., Priedigkeit, N., Buettner, C., Lindtner, C., Mahroum, M., Abdul-Ghani, M., Dong, F., Arar, N., Camacho-Vanegas, O., Zhang, R., Camacho, S.C., Chen, Y., **Ibdah, M.,** Defronzo, R., Gillespie, V., Kelley, K., Dynlacht, B.D., Kim, S., Glucksman, M.J., Borochowitz, Z.U., and Martignetti, J.A. (2013). Morbid obesity resulting from inactivation of the ciliary protein cep19 in humans and mice. *Am. J. Hum. Genet*. 6: 1061-1071.
13. Yahyaa, M., Bar, E., Dubey, NK., Meir, A., Davidovich-Rikanati, R., Hirschberg, J., Aly, R., Tholl, D., Simon, PW., Tadmor, Y., Lewinsohn, E., and **Ibdah, M**. (2013).
14. Formation of norisoprenoid flavor compounds in carrot (*Daucus carota* L.) roots: characterization of a cyclic-specific carotenoid cleavage dioxygenase 1 gene. *J. Agric. Food Chem.* 61: 12244-12252.
15. **Ibdah, M**.,and Gang, DR. (2014). Use of coupled ion mobility spectrometry-time of flight mass spectrometry to analyze saturated and unsaturated phenylpropanoic acids and chalcones. *Chem. Cent. J*. 8: 38.
16. Aly, R., Dubey, NK., Yahyaa, M., Abu-Nassar, J.,and **Ibdah, M**. (2014). Gene silencing of CCD7 and CCD8 in *Phelipanche aegyptiaca* by tobacco rattle virus system retarded the parasite development on the host. *Plant Signal. Behav.* 9, e29376.
17. **Ibdah**, **M.,** Dubey, N.K., Eizenberg, H., Dabour, Z.,Abu-Nassar, J., Gal-On, A., and Aly, R. (2014). *Cucumber Mosaic Virus* as a carotenoid inhibitor reducing *Phelipanche aegyptiaca* infection in tobacco plants. *Plant Signal. Behav.* 9:10, e97216.
18. **Ibdah, M**., Berim, B., Martens, S., Valderrama, A.L.H., Palmieri, L., Lewinsohn, E., and Gang DR. (2014). Identification and cloning of an NADPH-dependent hydroxycinnamoyl-CoA double bond reductase involved in dihydrochalcone formation in *Malus* x *domestica* Borkh. *Phytochemistry* 107:24-31.
19. Yahyaa, M., Tholl, D., Cormier, G., Jensen, R., Simon, P.W., and **Ibdah, M**. (2015). Identification and characterization of terpene synthases potentially involved in the formation of volatile terpenes in carrot (*Daucus carota* L.) Roots. *J. Agric. Food Chem.*63:4870-4878.
20. Yahyaa, M., Matsuba, Y., Brandt, W., Doron-Faigenboim, A., Bar, E., McClain, A.,Davidovich-Rikanati, R., Lewinsohn, E., Pichersky, E., and **Ibdah, M**. (2015).Identification, functional characterization and evolution of terpene synthases from a basal dicot.*Plant Physiol.* (Special Issues*)* 169:1683-1697.
21. Yahyaa, M, A Berim, A., Isaacson, T., Marzouk, S., Bar, E., Davidovich-Rikanati, R., Lewinsohn, E., and **Ibdah, M**. (2015). Isolation and functional characterization of carotenoid cleavage dioxygenase1 from *Laurus nobilis* L. (Bay Laurel) fruits. *J. Agric. Food Chem.*63:8275-8282*.*
22. Yahyaa, M., Davidovich-Rikanati, R., Eyal, Y., Shachter, A., Marzouk, S., Lewinsohn, E., and **Ibdah, M**. (2016). Identification and characterization of UDP-glucose: Phloretin 4’-*O*-glycosyltransferase from *Malus* x *domestica* Borkh. *Phytochemistry* 130:47-55.
23. Yahyaa, M., Davidovich-Rikanati, R., Eyal, Y., Shachter, A., Marzouk, S., Lewinsohn, E., and **Ibdah, M**. (2017). Characterization of three chalcone synthase-like genes from apple (*Malus* x *domestica* Borkh.). *Phytochemistry* 140:125-133.
24. Yahyaa, M., Ibdah, M., Marzouk, S., and **Ibdah M**. (2018). Profiling of the terpene metabolome in carrot fruits of wild (*Daucus carota* L. ssp. *carota*) accessions and characterization of a geraniol synthase. *J. Agric. Food Chem.* 66:2378-2386.
25. Shaltiel‐Harpaz, L., Gerchman, Y., **Ibdah, M**., Kedoshim, R., Rachmany, D., Hatib, K., Bar‐Ya’akov, I., Soroker, V., and Holland, D. (2018). Grafting on resistant interstocks reduces scion susceptibility to pear psylla, *Cacopsylla bidens*.*Pest Management Sci*. 70: 234-239.
26. Yahyaa, M., Berim, B., Nawade, B., Ibdah, M., Dudareva, N., and **Ibdah, M**. (2019). Biosynthesis of methyleugenol and methylisoeugenol in *Daucus carota* leaves: Characterization of eugenol/isoeugenol synthase and *O*-methyltransferase. *Phytochemistry* 159: 197-189.
27. Taha-Salaime, L., Davidovich-Rikanati, R., Sadeh, A., Abo-Nassar, J., Marzouk, S., Yahyaa, M., **Ibdah, M**., Ghanim, M., Inbar, M., and Aly, R (2019). Phytoecdysteroid and clerodane content in three wild *Ajuga* species in Israel. *ASC Omega* 4: 2369-2376.
28. Yahyaa, M., Rachmany, D., Shaltiel-Harpaz, L., Nawade B., Sadeh, A., Ibdah, M., Gerchman, Y., Holland, D., and **Ibdah, M**. (2019). A *Pyrus communis* gene for *p*-hydroxystyrene biosynthesis: has a role in defense against the pear psylla *Cacopsylla biden. Phytochemistry* 161: 107-116.
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30. Nawade, B., Shaltiel-Harpaz, L., Yahyaa, M., Bosamia, C. T., Kabaha, A., Kedoshim, R., Zohar, M., Isaacson, T., and **Ibdah, M.** (2020). Analysis of apocarotenoid volatiles during the development of *Ficus carica* fruits and characterization of carotenoid cleavage dioxygenase genes. *Plant Sci.* 290: 110292.
31. Emran, S., Nawade, B., Yahyaa, M., Abu Nassar, J., Tholl. D., Eizenberg, H., and **Ibdah, M.** (2020).Broomrape infestation in carrot (*Daucus carota*): Changes in carotenoid gene expression and carotenoid accumulation in the parasitic weed *Phelipanche aegyptiaca* and its host**.** *Sci. Rep.* 10: 1-10.
32. Muchlinski, A., **Ibdah, M**., Ellison, S., Yahyaa, M., Nawade, B., Laliberte, S., Senalik, D., Simon, P., Whitehead, S., and Tholl, D. (2020). Diversity and function of terpene synthases in the production of carrot aroma and flavor compounds. *Sci. Rep.* 10: doi.org/10.1038/s41598-020-66866-1.
33. Nawade, B., Yahyaa, M., Kabaha, A., Kedoshim, R., Bosamia, C. T., and **Ibdah, M.** (2020).Characterization of terpene synthase genes potentially involved in black fig fly (*Silba adipata*) interactions with *Ficus carica.**Plant Sci.* 298:110549.
34. Nawade, B., Yahyaa, M., Davidovich-Rikanati, R., Lewinsohn, E., and **Ibdah, M.** (2020). Optimization of culture conditions for the efficient biosynthesis of trilobatin from phloretin by engineered *Escherichia coli* harboring the apple phloretin-4′-O-glycosyltransferase. *J. Agric. Food Chem.*68: 14212-14220.
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36. Shaltiel-Harpaz, L., Yahyaa, M., Nawade, B., Dudareva, N., and **Ibdah, M.** (2021). Identification of a wild carrot as carrot psylla (Bactericera trigonica) attractant and host plant chemistry. *Plant Sci*.: 111011.
37. Agmon, S., Kunta, S., Dafny-Yelin, M., Moy, J., **Ibdah, M**., Harel, A., Levy, Y., and Hovav R. (2022). Mapping of stem rot resistance in peanut indicates significant effect for plant architecture locus . Crop Science: <https://doi.org/10.1002/csc2.20803>.
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39. Meng, K., Eldar-Liebreich, M., Nawade, B., Yahyaa, M., Shaltiel-Harpaz, L., Coll, M., Sadeh, A., **Ibdah., M**. (2023). Analysis of apocarotenoid volatiles from lettuce (*Lactuca sativa*) induced by insect herbivores and characterization of carotenoid cleavage dioxygenase gene. *3 Biotech*: 13:94.
40. Huang, X., Yahyaa, M., Kongala, P., Maoz, I., Dudareva, N., Ibdah, M. (2024). Biosynthesis of elemicin and isoelemicin in Daucus carota leaves. *The Plant Journal*: <https://doi.org/10.1111/tpj.17201>.

**Invited Reviews**

1. **Ibdah, M**., Martens, S., and Gang, R.G. (2018). Biosynthetic pathway and metabolic engineering of plant dihydrochalcones. *J. Agric. Food Chem.* 66: 2273-2280.
2. Antonello, P., Shaltiel-Harpaza, L., and **Ibdah, M**. (2021). *β*-Ionone: Its occurrence and biological function and metabolic engineering." *Plants* 10: 754. <https://doi.org/10.3390/plants10040754>.
3. Paparella, A., Nawade, B., Shaltiel-Harpaz, L. and **Ibdah, M**. (2022). A review of the botany, volatile composition, biochemical and molecular aspects, and traditional uses of *Laurus nobilis*. *Plants*, 11(9), p.1209.
4. Bashir, T., Anam Ul Haq, S., Masoom, S., **Ibdah, M**., and Husaini, M.A. (2023). Quality trait improvement in horticultural crops: OMICS and modern biotechnological Approaches. *Molecular Biology Reports*, 50: 8729-8742.

Paparella, A., Kongala, P.R., Serio, A., Rossi, C., Shaltiel-Harpaza, L., Amjad M. Husaini, A.M., and **Ibdah, M.** (2024). Challenges and opportunities in the sustainable improvement of carrot production. *Plants* (Basel). 13(15): 2092.

**Book Chapters**

1. Gonda, I., Burger, J., Schaffer, A.A., **Ibdah, M**., Tadmor, Y., Katzir, K., Fait, A., and Lewinsohn, E. (2016). Biosynthesis and perception of melon (*Cucumis melo* L.) aroma. In “Biotechnology in Flavor Production” 2nd edition. Edited by Nativ Dudai and Daphna Havkin-Frenkel. Chapter 11, 281-305. Oxford: Wiley-Blackwell Publishing Ltd.
2. **Ibdah, M,** Yahyaa, M., Muchlinski, A., Nawade, B., and Tholl, D. (2019). Carrot volatile terpene metabolism: Terpene diversity and biosynthetic genes In “The Carrot Genome” 1st edition. Edited by Philip Simon. Chapter 16, 279-294. Springer Nature Switzerland AG.
3. Nawade, B., Yahyaa, M., Lewinsohn, E., and **Ibdah, M.** (2020). Vegetative and fruit volatiles for human consumption In “ Biology of Plant Volatiles” 1st edition. Edited by Eran Pichersky and Natalia Dudareva. Chapter 5, 79-95. CRC Press, Taylor & Francis group, Boca Raton.

**Granted Patents**

1. **Ibdah, M.** (2019). Identification and characterization of UDP-glucose: phloretin 4’-o-glucosyltransferase from *Malus* x *domestica* Borkh. US Patent No: US2019/0062768A1