

1 *Supplementary Information*

2 Occurrence of flavonoids and related compounds in 3 flower sections of *Papaver nudicaule*

4 Bettina Dudek, Anne-Christin Warskulat and Bernd Schneider*

5 Max Planck Institute for Chemical Ecology, Hans-Knöll-Straße 8, 07745 Jena,
6 bdudek@ice.mpg.de, awarskulat@ice.mpg.de, schneider@ice.mpg.de

7

8

9 Mass spectrometry

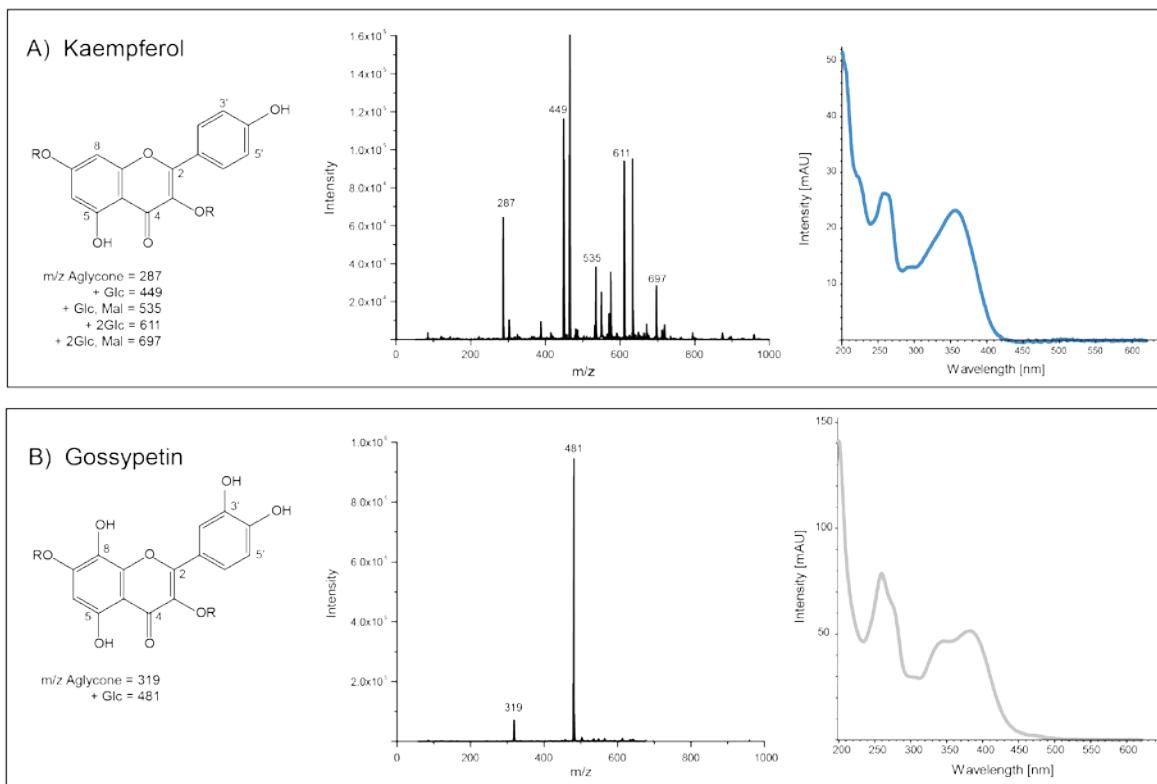
10 An Esquire 3000 ion trap mass spectrometer (Bruker Daltonics, Bremen, Germany) was used to
11 measure the mass spectra in the positive mode in the range m/z 50–1500 with skimmer voltage ± 33.9
12 V. Capillary exit voltage was ± 100.6 V, capillary voltage 2500 V, nebulizer pressure 35 psi, drying
13 gas 12.0 L min⁻¹, and gas temperature 350 °C.

14 UV/Vis spectroscopy

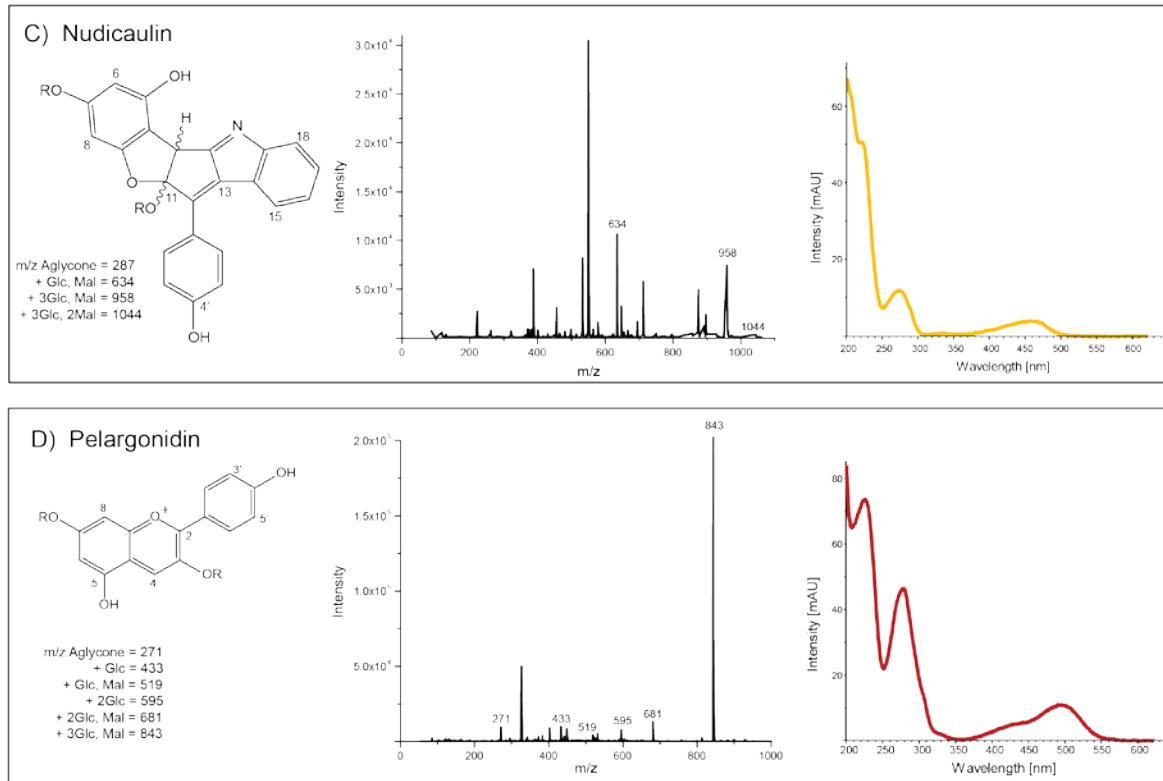
15 A photodiode array (PDA) detector (J&M Analytik AG, Aalen, Germany) was used for
16 acquisition of UV/Vis absorption spectra (please note that the sensitivity of the detector was
17 relatively low above 400 nm).

18

19



20



21

22 **Figure S1:** Structures, mass spectra and UV/Vis absorption spectra of representative glycosides of
 23 A) kaempferol, B) gossypetin, C) nudicaulin and D) pelargonidin occurring in petals of *P. nudicaule*. Data are
 24 in agreement with previous studies [1, 2, 3].

25 *m/z* [M+H]⁺; R indicate substitution by Glc, Glc₂, Glc-Mal or Glc₂-Mal; Glc = glycosyl; Mal = malonyl.

26

27

28 References

1. Cornuz, G.; Wyler, H.; Lauterwein, J. Pelargonidin 3-malonylsophoroside from the red Iceland poppy, *Papaver nudicaule*. *Phytochemistry* **1981**, *20*, 1461–1462, doi:10.1016/0031-9422(81)80075-1.
2. Schliemann, W.; Schneider, B.; Wray, V.; Schmidt, J.; Nimtz, M.; Porzel, A.; Böhm, H. Flavonols and an indole alkaloid skeleton bearing identical acylated glycosidic groups from yellow petals of *Papaver nudicaule*. *Phytochemistry* **2006**, *67*, 191–201, doi:10.1016/j.phytochem.2005.11.002.
3. Tatsis, E.C.; Böhm, H.; Schneider, B. Occurrence of nudicaulin structural variants in flowers of papaveraceous species. *Phytochemistry* **2013**, *92*, 105–112, doi:10.1016/j.phytochem.2013.04.011.

37