

Supporting Information

Extraction of sporopollenin exine capsules from sunflower pollen grains

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Table S1 DIPA data of sunflower sporopollenin exine capsules ^a

Sunflower pollen	Diameter (µm ± SD)
Defatted	37 ± 0.2
Capsules ^b	30 ± 0.4

^a Dynamic imaging particle analysis performed in triplicate and reported are average with standard deviation (n= 3).

^b Sporopollenin exine capsules prepared using extraction process with phosphoric acid for 10 h (2 g batch scale).

Table S2 Sunflower sporopollenin exine capsules: CHN composition^a

Process conditions	Carbon (%)	Hydrogen (%)	Nitrogen (%)
Defatted ^b	48.8 ± 0.2	7.6 ± 0.2	5.2 ± 0.0
HCl ^c acidolysis-48 h	64.6 ± 0.5	7.3 ± 0.4	2.2 ± 0.2
HCl acidolysis-10 h with extensive washing	62.0 ± 0.1	6.9 ± 0.5	2.2 ± 0.0
HCl acidolysis-20 h with extensive washing	63.5 ± 0.2	7.3 ± 0.1	1.6 ± 0.0
HCl acidolysis-30 h with extensive washing	64.6 ± 0.7	7.1 ± 0.5	1.6 ± 0.0
H ₃ PO ₄ ^d acidolysis-10 h with extensive washing	61.5 ± 0.3	7.9 ± 0.4	0.7 ± 0.0

^a CHN analysis performed in triplicate and reported are average value with standard deviation. ^b Defatted pollen grains. ^c 6 M Hydrochloric acid. ^d 85 % (v/v) Phosphoric acid.