

Additional materials for

**Revealing the organic dye and mordant composition of Paracas textiles
by a combined analytical approach**

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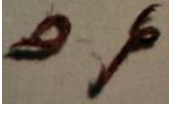







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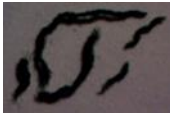











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Table S1: List of the Paracas fibres with their relative description and analysis performed.

Object	Sample	Photo	Colour	Material	Description	Compression test	Technical photography	XRF	HPLC-DAD-MS
	MNAAHP 001		Red	Camelid	Embroidery	X	X	X	X
RT-02931 Mantle	MNAAHP 002		Brown	Cotton	Ground weave	X	X	X	X
	MNAAHP 003		White	Camelid	Embroidery	X	X	X	X
	MNAAHP 004		Blue	Camelid	Embroidery	X	X	-	X
RT-01683 Mantle	MNAAHP 005		Brown	Cotton	Ground weave	X	X	X	X
	MNAAHP 006a		White	Camelid	Embroidery	X	X	-	X
	MNAAHP 006b		Gray	Camelid	Embroidery	X	X	X	X
RT-039346 Border	MNAAHP 007		Red	Cotton	Ground weave	X	X	X	X
	MNAAHP 008		Yellow	Camelid	Embroidery	X	X	X	X
RT-002649 Fragment	MNAAHP 009		Red	Camelid	Embroidery	X	X	X	X
	MNAAHP 0010		Blue	Camelid	Embroidery	X	X	X	X
1935.32.0 198 Border	PAR-001		Yellow	Camelid	Embroidery	X	X	X	X

1935.32.0 211a Fragment	PAR-003		Yellow	Camelid	Embroidery	X	X	X	X
1935.32.0 211c Fragment	PAR-005		Yellow	Camelid	Embroidery	X	X	X	X
1935.32.0 205/RT- 043484** Poncho	PAR-007		Red	Camelid	Embroidery	X	X	X	X
	PAR-008		Brown	Cotton	Ground weave	X	X	X	X
	PAR-028		White	Cotton	Ground weave	X	X	X	-
	PAR-029		White	Cotton	Ground weave	X	X	X	-
	PAR-009		Red	Camelid	Embroidery	X	X	X	X
1935.32.0 085/RT- 043457** Tunic	PAR-026		White	Cotton	Ground weave	X	X	X	-
	PAR-027		White	Cotton	Ground weave	X	X	X	-
1935.32.0 179/RT- 038072* Mantle	PAR-011		White	Camelid	Embroidery	X	X	X	X
1935.32.0 190/RT- 038073* Mantle	PAR-019		Red	Camelid	Embroidery	X	X	X	X
	PAR-020		Black	Cotton	Ground weave	X	X	X	X
1935.32.0 188/RT- 038074* Poncho	PAR-021		Red	Camelid	Embroidery	X	X	-	X

	PAR-022		Black	Cotton	Ground weave	X	X	X	X
	PAR-023		Brown	Cotton	Ground weave	X	X	X	X
1935.32.0 213/RT- 038075* Fragment	PAR-024		Blue	Camelid	Embroidery	X	X	X	X
1935.32.0 048/RT- 043455** Tunic	PAR-025		Red	Cotton	Ground weave	X	X	X	X
1932.16.0 165 Fragment of a border	PAR-030		White	Cotton	Ground weave	X	X	X	-
	PAR-031		White	Cotton	Ground weave	X	X	X	-
1935.32.0 122 a Mantle	PAR-032		White	Cotton	Ground weave	X	X	X	-
	PAR-033		White	Cotton	Ground weave	X	X	X	-
1935.32.0 122 b Tunic	PAR-034		White	Cotton	Ground weave	X	X	X	-
	PAR-035		White	Cotton	Ground weave	X	X	X	-
1935.32.0 173 Border	PAR-036		Green	Camelid	Embroidery	X	X	X	X
	PAR-037		Green	Camelid	Embroidery	X	X	X	X

*Repatriated from the National Museum of World Culture (NMWC; Gothenburg; Sweden) to the Museo Nacional de Arqueología, Antropología e Historia del Perú (MNAHP; Lima; Peru) in 2014

**Repatriated from the National Museum of World Culture (NMWC; Gothenburg; Sweden) to the Museo Nacional de Arqueología, Antropología e Historia del Perú (MNAHP; Lima; Peru) in 2017

Table S2: Interpretation of the additional XRF map collected from 23 of the fibre samples. The colour of the cells for each element is related to its peak area intensity in XRF spectra, from the most intense (white) to the lowest (black) with one shade of grey in between.

Sample	Cl	K	Ca	Ti	Mn	Fe	Cu	Zn
MNAAHP 002	Black	Grey	Grey	Grey	Grey	Grey	Black	Black
MNAAHP 003	Grey	Black	Grey	Grey	Grey	Grey	Black	White
MNAAHP 004	Grey	Grey	Grey	Grey	Grey	Grey	Black	Grey
MNAAHP 005	Black	Grey	Grey	White	Grey	Grey	Black	Grey
MNAAHP 006a	Black	Black	Grey	Black	Black	Black	Black	Black
MNAAHP 006b	Grey	Grey	Grey	Grey	White	White	Black	White
MNAAHP 008	Black	Grey	Grey	Grey	Grey	Grey	Black	Black
MNAAHP 009	Black	Grey	Black	Grey	Grey	Grey	White	Grey
MNAAHP 010	Grey	Grey	Grey	Grey	Grey	Grey	Black	Grey
PAR-001	Grey	Grey	Black	Grey	Grey	Grey	White	Grey
PAR-003	Black	Grey	Grey	Black	Grey	Grey	Grey	Black
PAR-004	Grey	Grey	Grey	Grey	Grey	Grey	White	Grey
PAR-005	Grey	White	Grey	Black	Grey	Grey	White	Grey
PAR-007	Grey	Grey	Grey	Grey	Grey	Grey	Black	Grey
PAR-008	Black	Grey	Grey	Grey	Grey	Grey	Black	Black
PAR-009	Black	Grey	Grey	Grey	Grey	Grey	Black	Black
PAR-011	Grey	Black	Grey	Black	Grey	Grey	Black	White
PAR-019	Grey	Grey	Grey	Black	Grey	Grey	Black	Black
PAR-020	White	Black	White	Grey	Grey	Grey	Black	Grey
PAR-021	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Black
PAR-022	Black	Grey	Grey	Grey	Grey	Grey	Black	Black
PAR-023	Black	Grey	Grey	Black	Black	Black	Black	Black
PAR-024	Grey	Black	Grey	Grey	Grey	Grey	Black	White

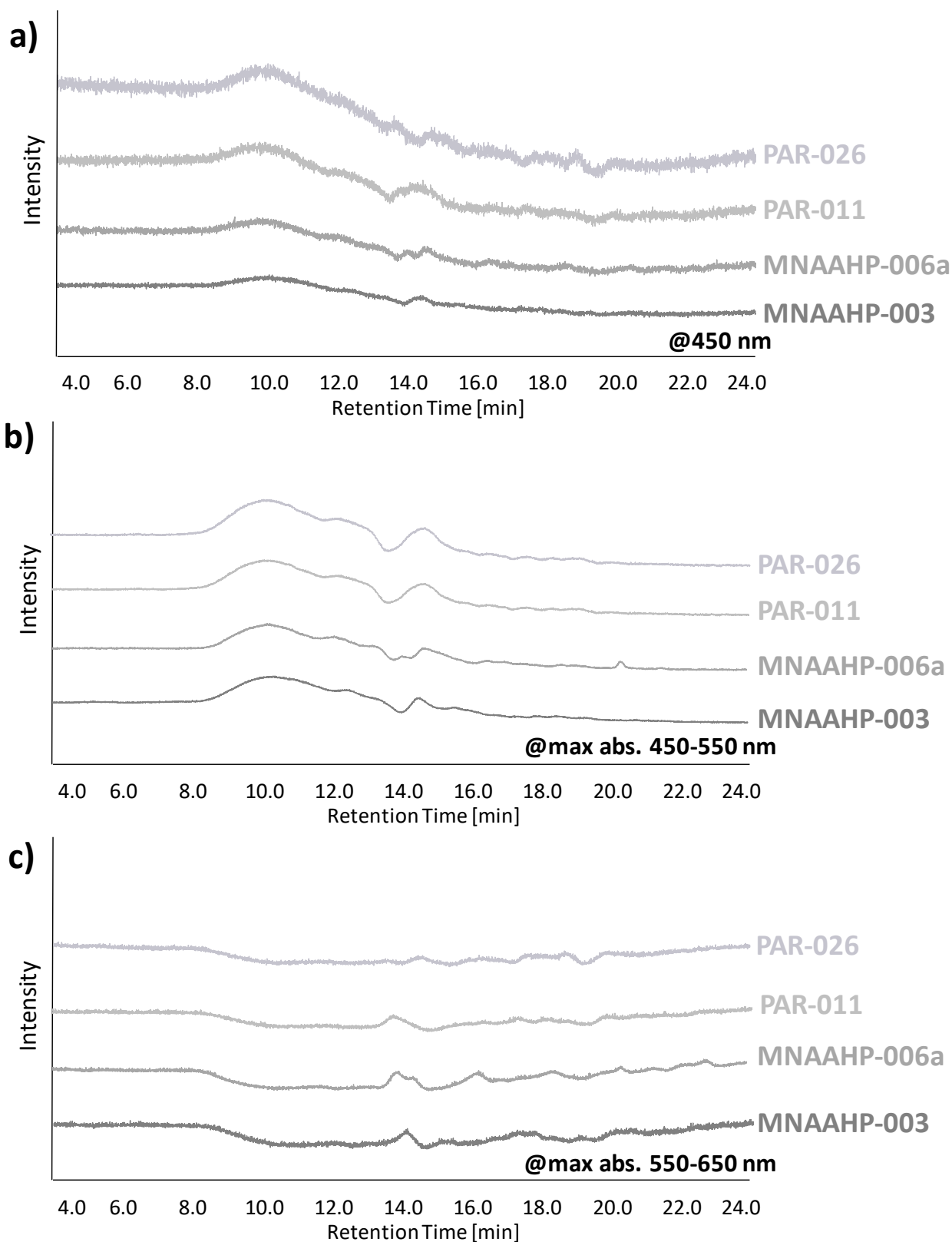


Figure S1: a) HPLC-DAD (extracted at 450 nm) b) HPLC-DAD (extracted at max abs 450-550 nm) c) HPLC-DAD (extracted at max abs 550-650 nm) of the extracts of all the white fibers analyzed (all chromatograms are presented in the same scale, and stacked for the sake of clarity).

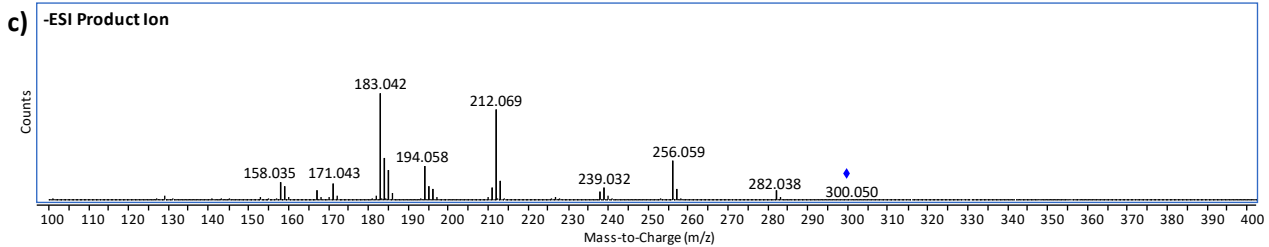
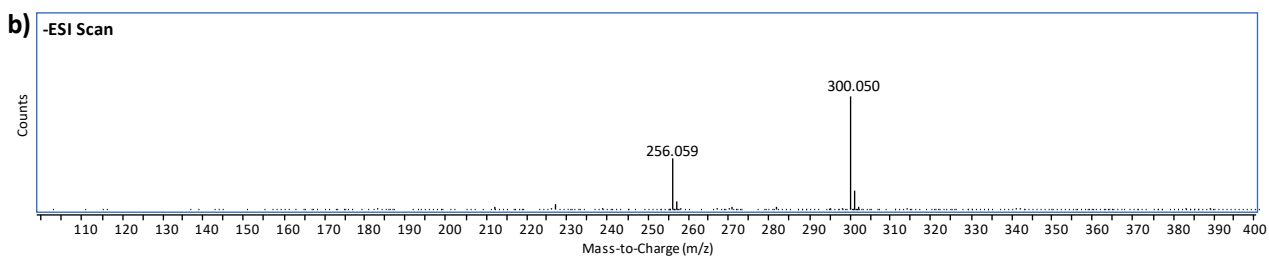
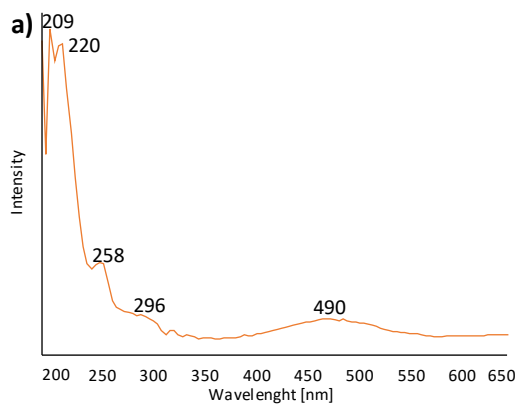


Figure S2: Compound labelled as Unk in Figure 4a: **a)** UV-Vis spectrum; **b)** mass spectrum; **c)** product-ion spectrum.

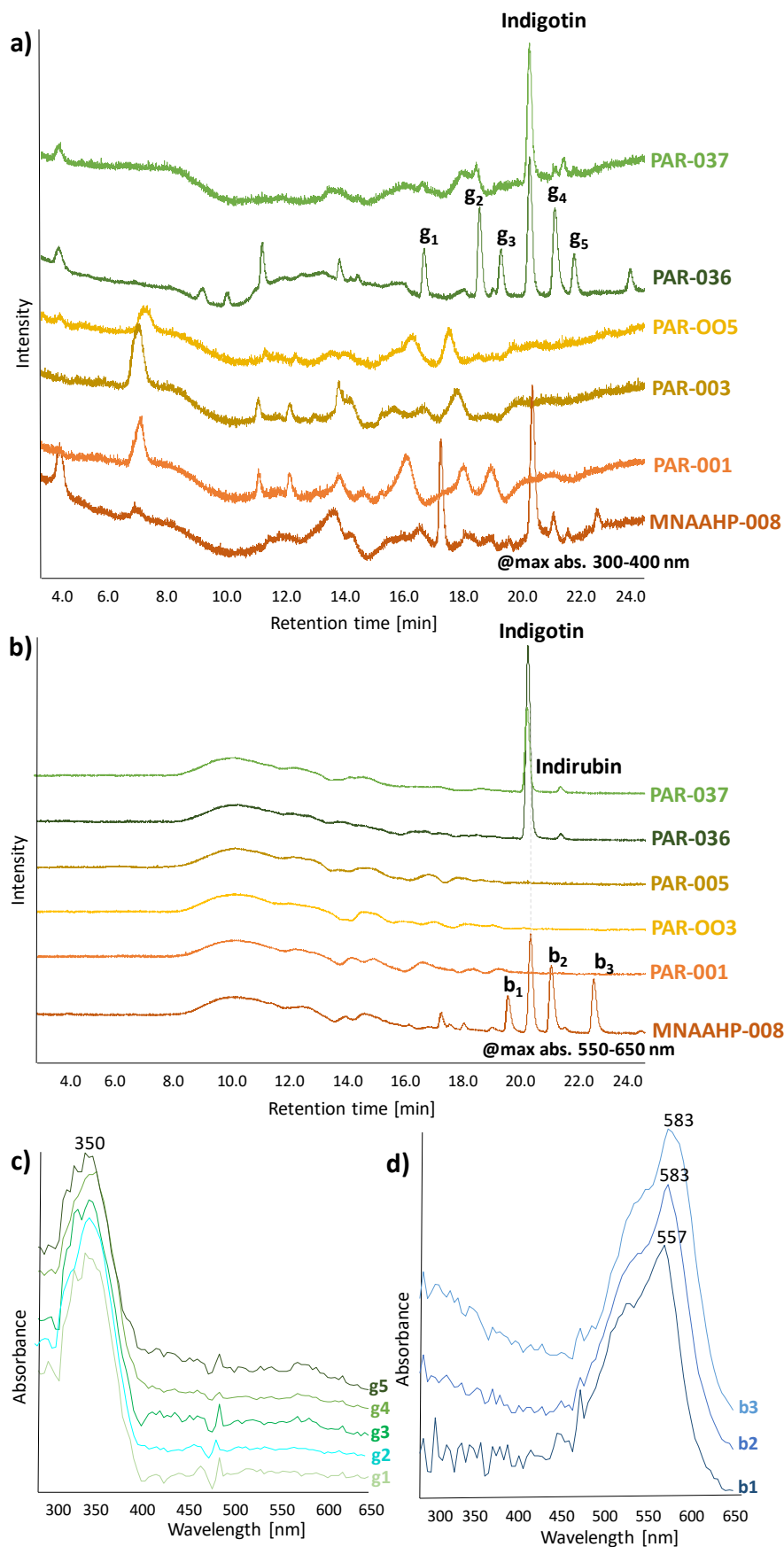


Figure S3: a) HPLC-DAD (extracted at max abs 300-400 nm) b) HPLC-DAD (extracted at max abs 550-650 nm) of the extracts of all the yellow and green fibers analyzed; c) UV-Vis spectra of the g₁₋₅ compounds labelled in Figure S3 a; d) UV-Vis spectra of the b₁₋₃ compounds labelled in Figure S3 b (all chromatograms are presented in the same scale, and stacked for the sake of clarity).

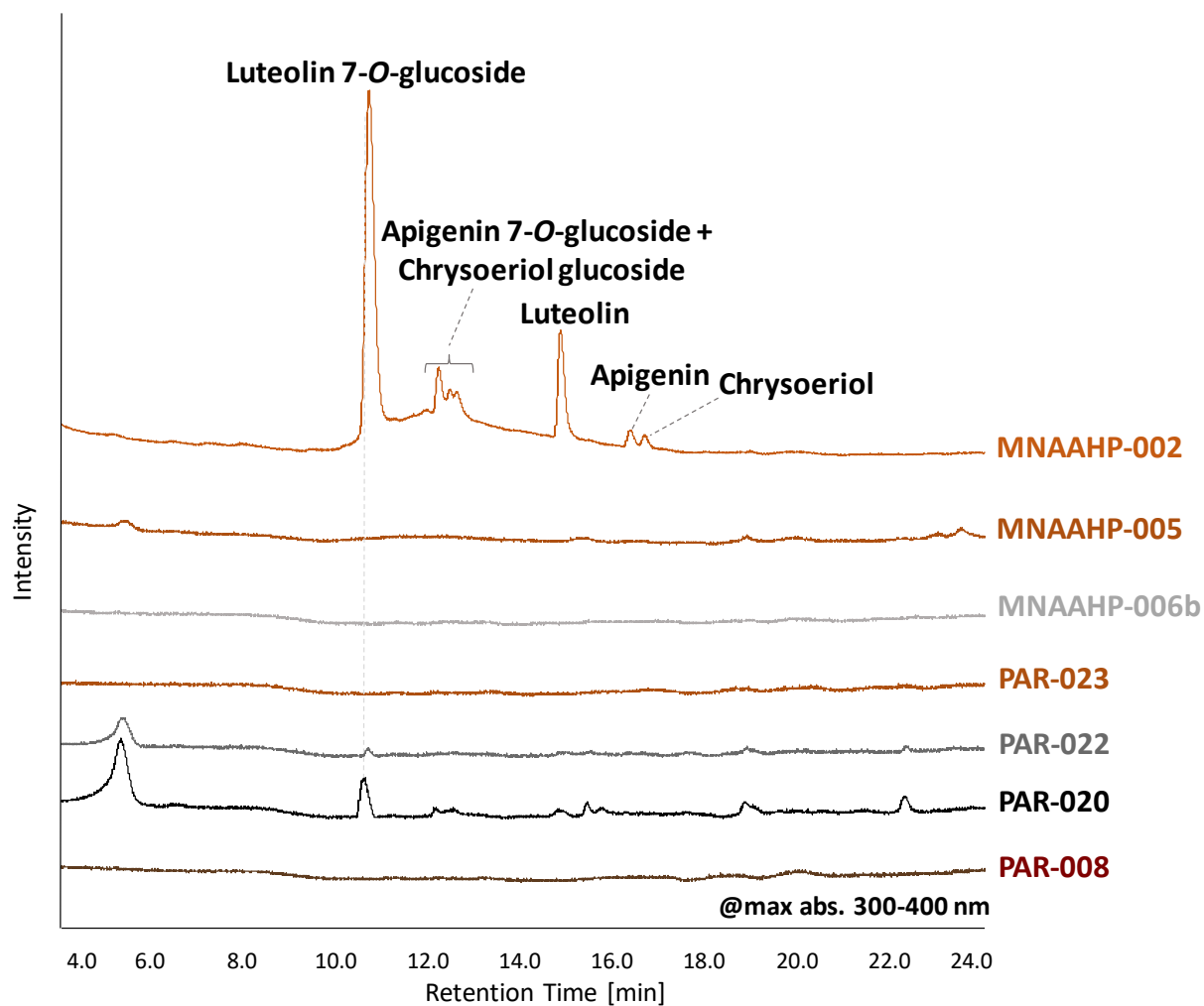


Figure S4: HPLC-DAD (extracted at max abs 300-400 nm) of the extracts of all the brown (P008, P023, M005 and M002), black (P020 and P022) and grey (M006b) fibers analyzed (all chromatograms are presented in the same scale, and stacked for the sake of clarity).