## **HPLC** separation

Column	Poroshell EC-C18 (3.0×150 mm), 2.7 μm, Agilent Technologies				
Column temperature	40 °C				
Injection volume	2 μL				
Flow rate	0.4 mL min <sup>-1</sup>				
Eluents	(A) 0.1 % HCOC (B) 0.1 % HCOC	<ul> <li>(A) 0.1 % HCOOH in water,</li> <li>(B) 0.1 % HCOOH in ACN/MeOH (1:1; v/v)</li> </ul>			
Gradient program	Time, min	% A	% B		
	0	90	10		
	2	90	10		
	20	0	100		
	30	0	100		
Post time	10 min				
UV–Vis detection					
Wavelengths	UV: 254, 350 nm; Vis: 580 nm				
Peak width	> 0.1 min (2 s)				
ESI MS detection		QQQ		QTOF	
Polarity	Negative				
Mode	Profile 50-1000 m/z Product ion 50-650 m/z			50-1000 m/z	
Peak width	0.07 min			-	
Fragmentor voltage	200 V			100 V	
Sheath gas temperature	250 °C			325 °C	
Sheath gas flow	11 L min <sup>-1</sup>			10 L min <sup>-1</sup>	
Drying gas flow	5 L min <sup>-1</sup>			-	
Drying gas temperature	300 °C			-	
Nebulizer pressure	45 psi			35 psi	
Capillary voltage	3500 V			3500 V	
VCharging	500 V			-	
Collision energy	20 V			-	

Table S1. Conditions of chromatographic separation and detection of examined colorants







 HV
 det modermag \* WD
 500 µm





Figure S1. Compilation of SEM images of all tested threads at a magnification of 100x













Fig.S1.(cont.) Compilation of SEM images of all tested threads at a magnification of 100x



Fig.S1.(cont.) Compilation of SEM images of selected threads at a magnification of 2500x





Fig.S2. Typical FT-IR spectra of the selected treads: A- fibre F5, B-fibre F1



Fig. S3. Mass spectrum of apigenin-C-diglucoside (Y1).



Fig. S4. Mass spectrum of luteolin-O-diglucoside (Y2).



Fig. S5. Mass spectrum of luteolin-3,7'-O-diglucoside (Y3).



Fig. S6. Mass spectrum of luteolin-7-O-glucoside (Y4).



Fig. S7. Mass spectrum of luteolin-O-glucoside (Y5).











Fig. S10. Mass spectrum of luteolin-4'-O-glucoside (Y8).















Fig. S14. Mass spectrum of luteolin derivative (Y12).





















Fig. S23. Mass spectrum of derivative of laccaic acid A (R4).



Fig. S24. Mass spectrum of derivative of xantholaccaic acid A (R5).















Fig. S31. Mass spectrum of compound (Y14).



Fig. S32. Mass spectrum of compound (Y19).



Fig. S33. Historical carpet with Chintamani motifs (National Museum in Kracow, Poland collection MNK XIX-8950)