

Supplementary data

Table 1 distance (q) between the meridional diffractions and the transmitted beam on SAXD of *A.pectinata*, *P.fucata* and *P.nobilis* byssus fibers, in nm⁻¹

	layerline	<i>A.pectinata</i>	<i>P. fucata</i>	<i>P.nobilis</i>
Diffraction position q [nm ⁻¹]	1			
	2	0.852±0.006	0.826±0.005	0.862±0.015
	3	1.199±0.005		1.231±0.009
	4	1.593±0.004	1.584±0.005	1.622±0.007
	5			
	6			
	7		2.700±0.010	
	8	3.174±0.015	3.138±0.011	3.220±0.011
	9			
	10			
	11	4.338±0.010	4.288±0.013	
	12	4.750±0.014	4.726±0.013	
	13			
	14	5.552±0.014	5.421±0.015	5.587±0.017
	15	5.952±0.021	5.869±0.015	6.011±0.038
	16			
	17		6.583±0.017	6.860±0.113
	18		7.006±0.013	
	19		7.455±0.011	
	20			
	21			8.240±0.014
	22			
	unassigned	3.033±0.018		