Animal fibers sheet

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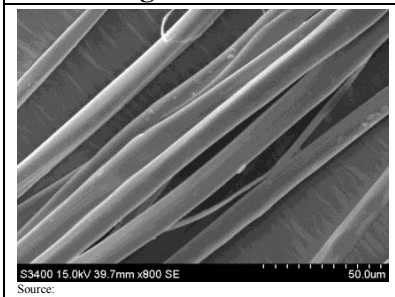
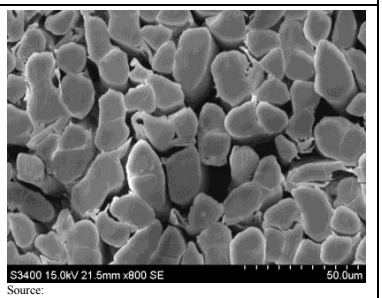
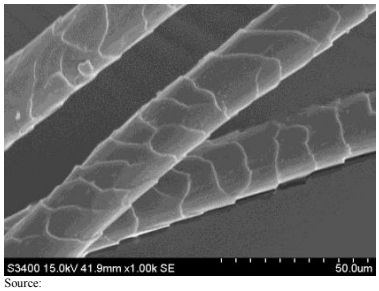
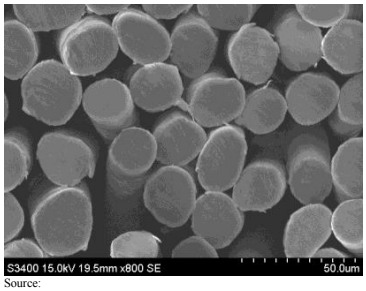
Silk *(Bombyx mori L)*

Animal	Fiber	Information
 Source: http://thebigfatindianwedding.com/2013/the-silk-road-part-	 Source: INFMP	**Country of origin:** China, India, Europe **Applications:** obtaining high quality yarns and clothes (shirts, ties, blouses, formal dresses, high fashion clothes, lining, lingerie, dress suits, sun dresses), used for upholstery, wall coverings, window treatments **Linear density [tex]:** 0.117 [9] **Length [mm]:** 500–3000 [5] **Density [g/cm^3]:** 1.37 [2] **Breaking tenacity [cN/tex]:** 27–40 [1] **Diameter [µm]:** 13–25 [2] **Thermal stability [^{o}C]:** 150 [1] **Young's Modulus (GPa):** 14 [12] **Chemical composition [%][6]:**
Longitudinal view	**Cross- section**	
 Source: INFMP	 Source: INFMP	

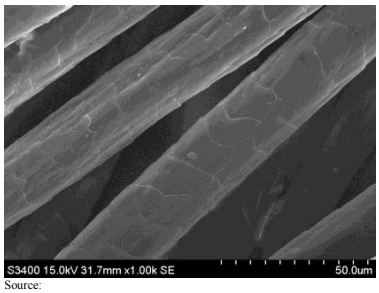
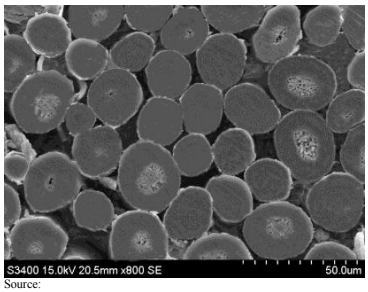
Fibroin	Sericin	Fat	Dyes	Ethyl alcohol
72-80	18-26	0.1-1	1-1.4	1

Sheep Wool *(Ovis aries)*

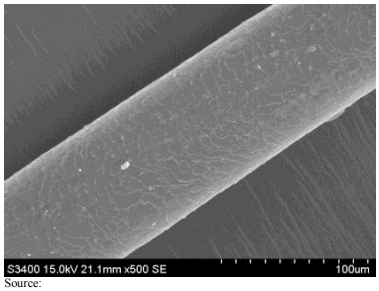
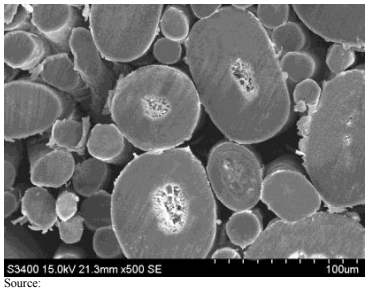
Animal	Fiber	Information
 Source: http://www.johnwhitener.com/?p=1280	 Source: INFMP	**Country of origin:** Australia, New Zealand Argentina **Applications:** obtaining high quality yarns and clothes, blankets, ponchos, carpets, duvets, pillows, felt, therapeutic belts, winter hats, sound absorber in high quality loudspeakers **Linear density [dtex]:** 2.6–6 [3] **Length [mm]:** 55–75 [2] **Density [g/cm^3]:** 1.3–1.31 [4] **Breaking tenacity [cN/tex]:** 8–18 [1] **Diameter [µm]:** 18–26 [2] **Thermal stability [^{o}C]:** 135 [2] carbonization: 300 [1] **Young's Modulus [GPa]:** 3.1 [7] **Chemical composition [%][10]:**
Longitudinal view	**Cross- section**	
 Source: INFMP	 Source: INFMP	

Carbon	Oxygen	Nitrogen	Hydrogen	Sulfur
50-52	20-25	16-17	6.5-7.5	3-4

Alpaca *(Lama pacos)*

Animal	Fiber	Information
 Source: http://pixels.com/featured/alpaca-lama-pacos-altiplano-bolivia-pete-oxford.html	 Source: INFMP	**Country of origin:** The Andes (Peru, Chile, Bolivia) **Applications:** soft fabric, textiles (sweaters, hats, mitts, scarves, gloves, and jumpers), rugs and toys **Linear density [tex]:** 0.802 [6] **Length [mm]:** 200–250 [5] **Density [g/cm^3]:** 1.309 [6] **Breaking tenacity [cN/tex]:** 14.23 [6] **Diameter [µm]:** 20–69 [5] **Thermal stability [^{o}C]:** 135 [2] **Young's Modulus [MPa]:** 2700 [7]
Longitudinal view	**Cross- section**	
 Source: INFMP	 Source: INFMP	

Camel *(Camelus bactrianus)*

Animal	Fiber	Information
 Source: http://www.thelovelyplanet.net/the-wild-bactrian-camel/	 Source: INFMP	**Country of origin:** China, Mongolia **Applications:** textiles (fabrics, knitwear), blankets **Linear density [microns]:** outer hair 20–120 [11] inner down fiber 19–24 [11] **Length [cm]:** - outer hair 37 [11] - inner down fiber 2–5[11] and 12.5 [11] **Density [g/cm^3]:** 0.15–0.18 [8] **Tenacity [g/tex]:** 21.99 [13] **Diameter [µm]:** 18–24 [5] **Thermal stability [^{o}C]:** 135 [2] **Young's Modulus [g/den]:** 33.3 [14]
Longitudinal view	**Cross- section**	
 Source: INFMP	 Source: INFMP	

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