SUPPLEMENTARY INFORMATION

The chemical fingerprint of hair melanosomes by infrared nano-spectroscopy

Vesna Stanic^a, Francisco Carlos Barbosa Maia^a, Raul de Oliveira Freitas^a, Fabiano, Emmanuel Montoro^b, Kenneth Evans-Lutterodt^c

^a Brazilian Synchrotron Light Laboratory, CNPEM, Campinas, SP 13083-970, Brazil, Tel: +55 19 3512 1044; E-mail: vesna.stanic@Inls.br

^b Brazilian National Nanotechnology Laboratory, CNPEM, Campinas, SP 13083-970, Brazil

^c National Synchrotron Light Source, Brookhaven National Laboratory, Upton, NY, 11973, USA

Keratin longitudinal section supporting information for figure 3C:



Supplementary Figure 1: Example of nano-FTIR spectra of the keratin in orthogonal geometry. Multiple point has been measured and average data are reported in manuscript in figure 3C.

Keratin cross section supporting information for figure 3F:



Supplementary Figure 2: Example of nano-FTIR spectra of the keratin in parallel geometry. Multiple point has been measured and average data are reported in manuscript in figure 3F.

Eumelanin cross section, supporting information for figure 4B:



Supplementary Figure 3: Example of nano-FTIR spectra of the eumelanin. Multiple point has been measured and average data are reported in manuscript in figure 4B.

Pheomelanin cross section, supporting information for figure 4D:



Supplementary Figure 4: Example of nano-FTIR spectra of the pheomelanin. Multiple point has been measured and average data are reported in manuscript in figure 4D.



Line scan of eumelanin.

Supplementary Figure 5: A) Spectral line scan across keratin-eumelanin-keratin regions (0 - 50 nm, keratin / 50 – 180 nm eumelanin / 180 – 210 nm, keratin)showing clearly the fingerprints of each specimen; B) Nano-FTIR spectra of eumelanin at different points.