Applying UV Hyperspectral Imaging for the Quantification of Honeydew Content on Raw Cotton via PCA and PLS-R Models

Mona Knoblich [1,2,†], Mohammad Al Ktash [1,2,†], Frank Wackenhut [1], Volker Jehle [3], Edwin Ostertag [1] and Marc Brecht [1,2,*]

[1] Process Analysis and Technology PA & T, Reutlingen University, Alteburgstraße 150, 72762 Reutlingen, Germany; mona.knoblich@reutlingen-university.de (M.K.); mohammad.alktash@reutlingen-university.de (M.A.K.); frank.wackenhut@reutlingen-university.de (F.W.); edwin.ostertag@reutlingen-university.de (E.O.)

[2] Institute of Physical and Theoretical Chemistry, Eberhard Karls University Tübingen, Auf der Morgenstelle 18, 72076 Tübingen, Germany

[3] Texoversum Faculty Textile, Reutlingen University, Alteburgstraße 150, 72762 Reutlingen, Germany; volker.jehle@reutlingen-university.de

[*] Correspondence: marc.brecht@reutlingen-university.de

[†] These authors contributed equally to this work.

Supplementary Materials:

For model building and understanding the PLS-R factor loadings and loading weights for all three factors are displayed in the Figure S1. X-loadings reflect the relationship between the predictor variables and the latent variables, while X-loadings weights represent the relationship between the predictor variables and the response variable. Both X-loadings and X-loadings weights play important roles in PLS-R for variable selection, model interpretation, and prediction.
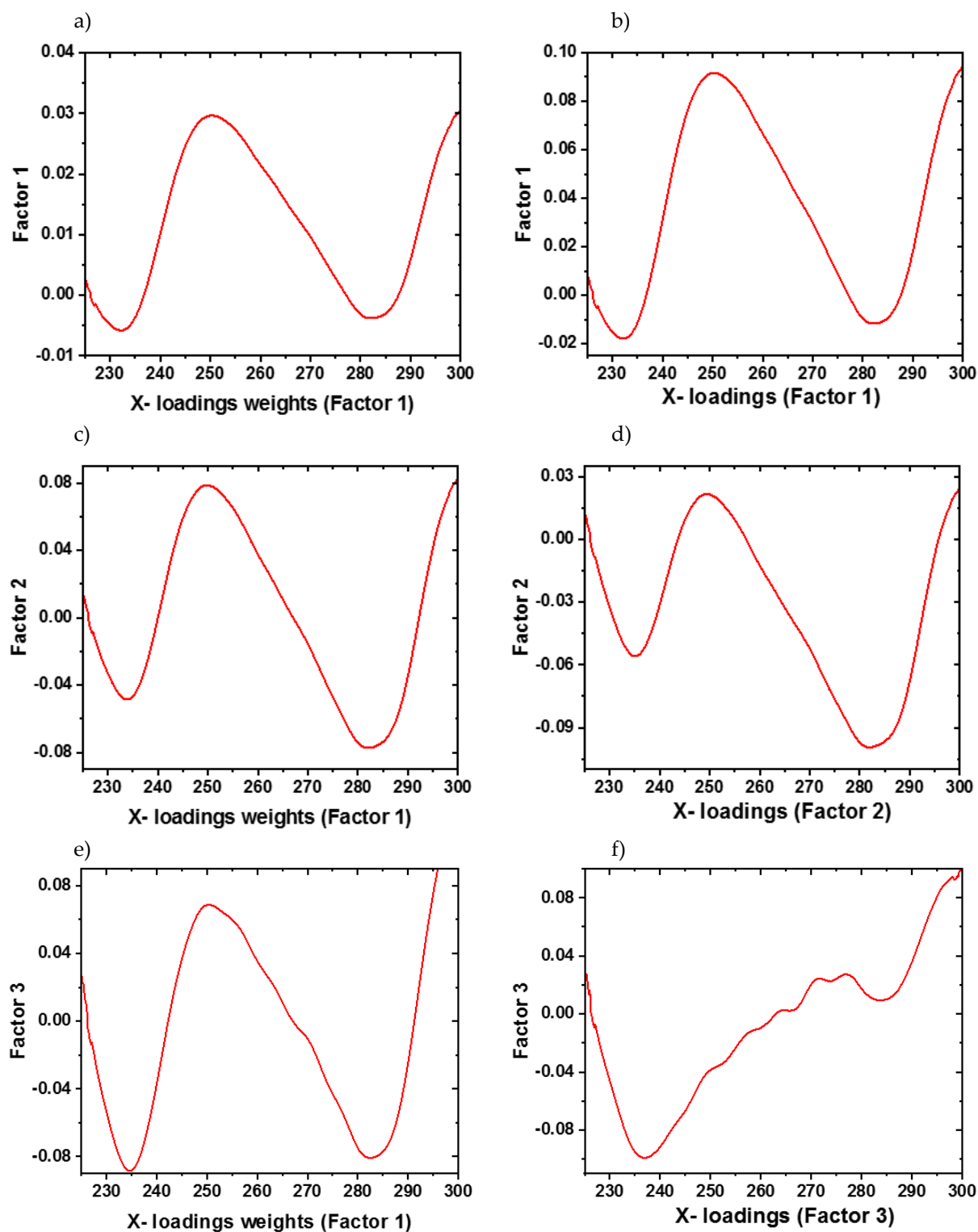
Figure S1. X-loadings weights and x-loadings for factor 1 (**a**,**b**), factor 2 (**c**,**d**) and factor 3 (**e**,**f**), respectively.