**Supplementary Materials**

# Assessment of various food proteins as structural materials for delivery of hydrophobic polyphenols using a novel co-precipitation method

**Ali Rashidinejad[a*], Matthijs Nieuwkoop[a©], Harjinder Singh[a] and Geoffrey B. Jameson[a,b]**

[a]Riddet Institute, Massey University, Private Bag 11 222, Palmerston North, New Zealand.
[b]School of Natural Sciences, Massey University, Palmerston North 4442, New Zealand.
[*]Corresponding author: A.Rashidinejad@massey.ac.nz.
[©]Current Address: Jan Zandbergen Group, Veenendaal, The Netherlands.

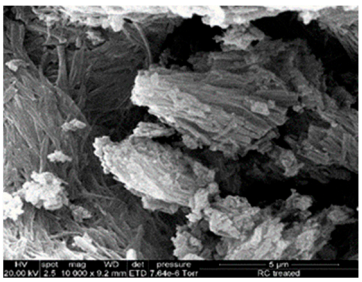
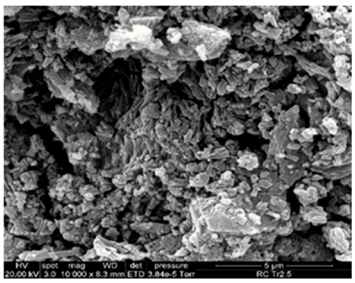
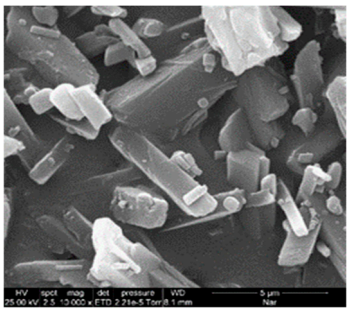
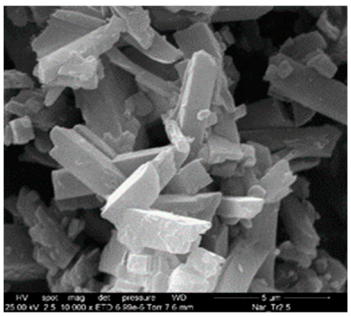
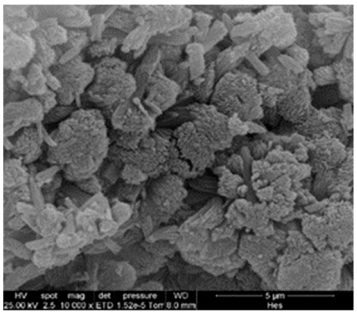
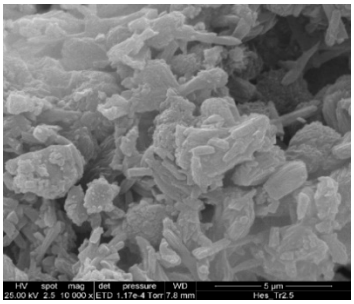
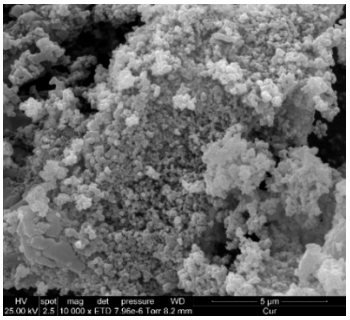
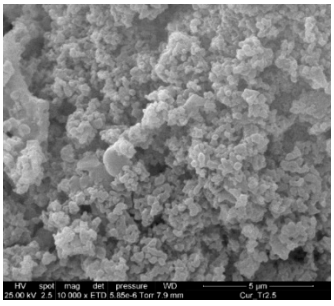
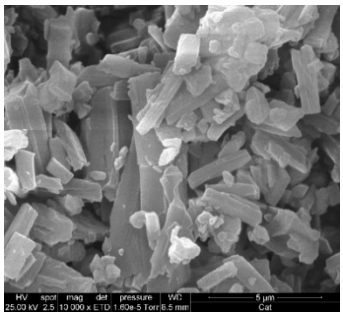
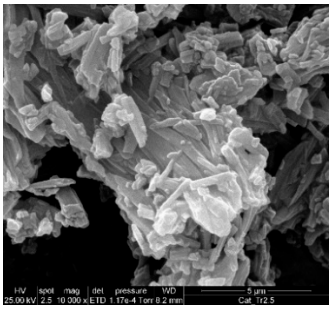
| Polyphenol | Polyphenol precipitate | Polyphenol-trehalose precipitate |
|---|---|---|
| Rutin |  |  |
| Naringenin |  |  |
| Hesperidin |  |  |
| Curcumin |  |  |
| Catechin |  |  |

**Figure S1.** Scanning electron micrographs of the powders of treated polyphenols (precipitates) in the absence and presence of trehalose. The scale bars can be found at the bottom of each micrograph.

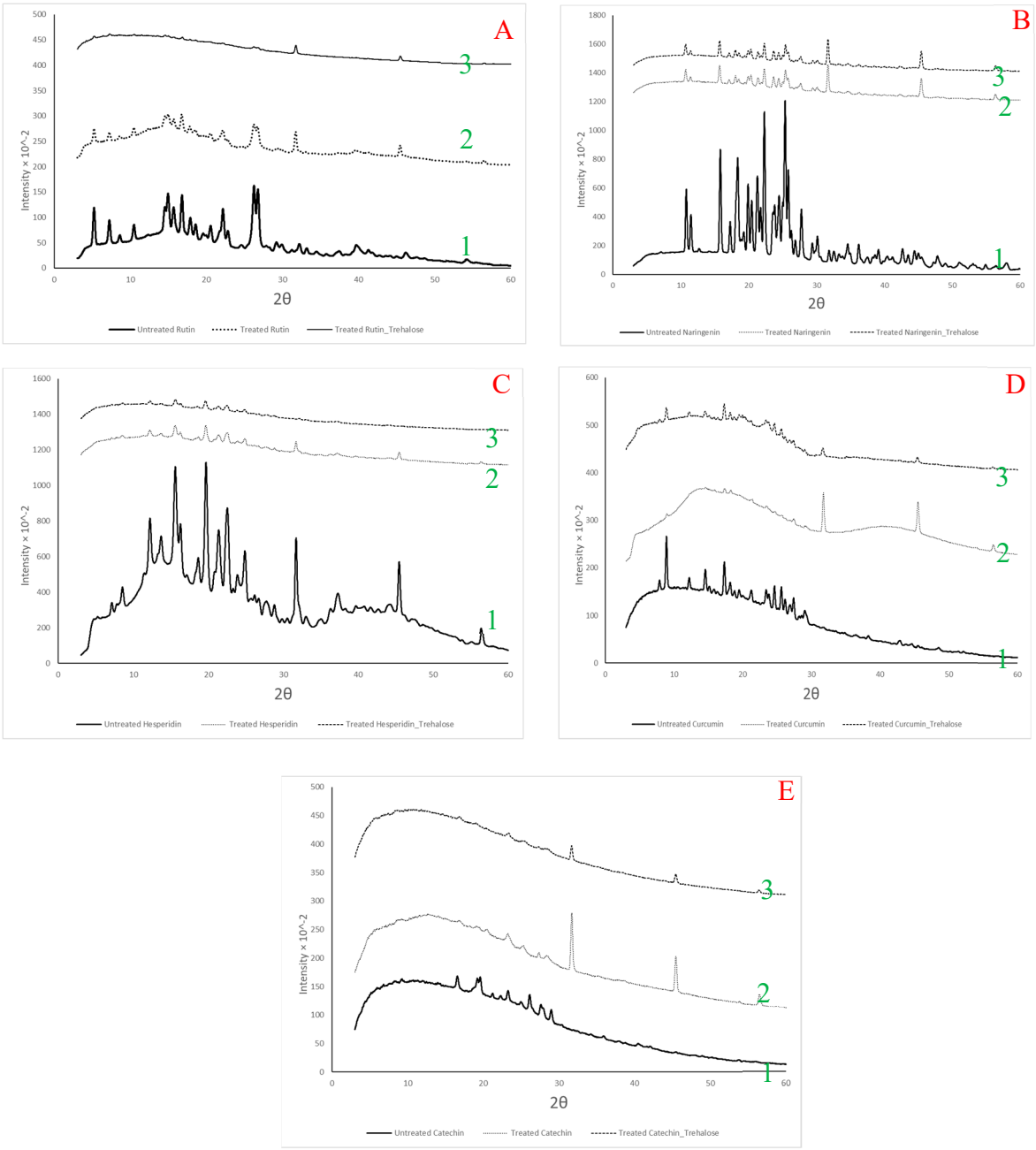



**Figure S2.** X-ray diffraction patterns of the powders of treated polyphenols (precipitates) in the absence and presence of trehalose. A; rutin, B; naringenin, C; hesperidin, D; curcumin, E: catechin. Legends from bottom to top: 1; untreated flavonoid, 2; treated in the presence of neither protein nor trehalose, 3; treated in the presence of trehalose.

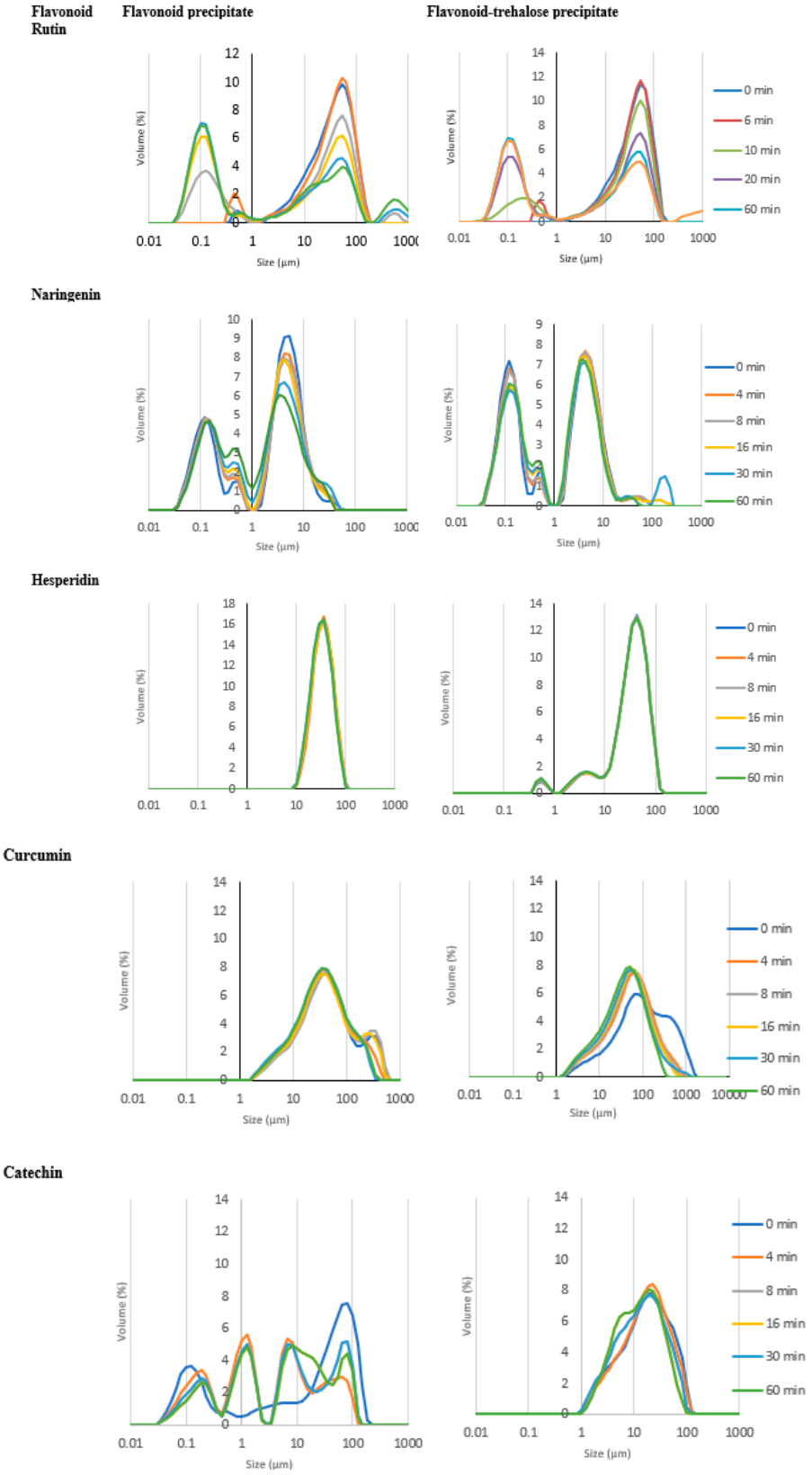



**Figure S3.** The volume % of particles over time for of the powders of treated polyphenols (precipitates) in the absence and presence of trehalose, dispersed in phosphate buffer (pH 7.0).