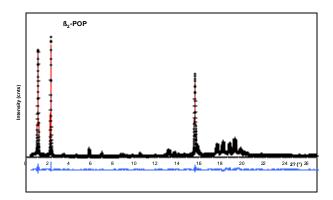
## Supplementary material



**Figure 1** Rietveld refinement results: Measured (black), calculated (red) diffraction traces and the difference trace (blue) of refined  $\beta_2$ -structure of POP.

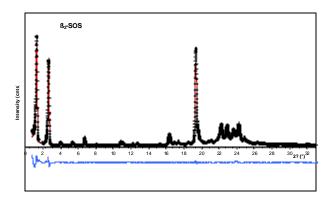


Figure 2 Rietveld refinement results: Measured (black), calculated (red) diffraction traces and the difference trace (blue) of refined  $\beta_2$ -structure of SOS.

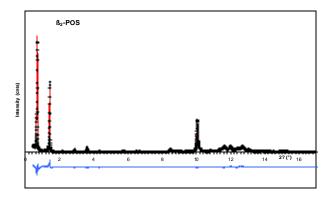
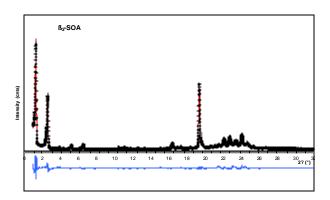


Figure 3 Rietveld refinement results. Measured (black), calculated (red) diffraction traces and the difference trace (blue) of refined  $\beta_2$ -structure of POS



**Figure 4** Rietveld refinement results. Measured (black), calculated (red) diffraction traces and the difference trace (blue) of refined  $\beta_2$ -structure of SOA.

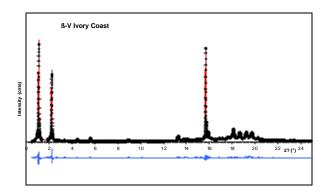


Figure 5 Rietveld refinement results: Measured (black), calculated (red) diffraction traces and the difference trace (blue) of refined &-V structure of Ivory Coast cocoa butter.

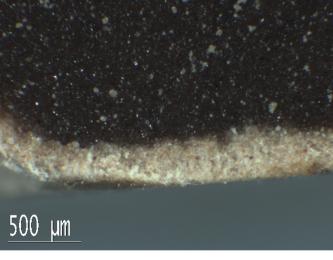


Figure 6. Light microscopic image of rupture surface of dark chocolate with fat-bloom layer, lacking the dark particles of the bulk.