

Figure S1: Optical microscopy of *Berberis* extract

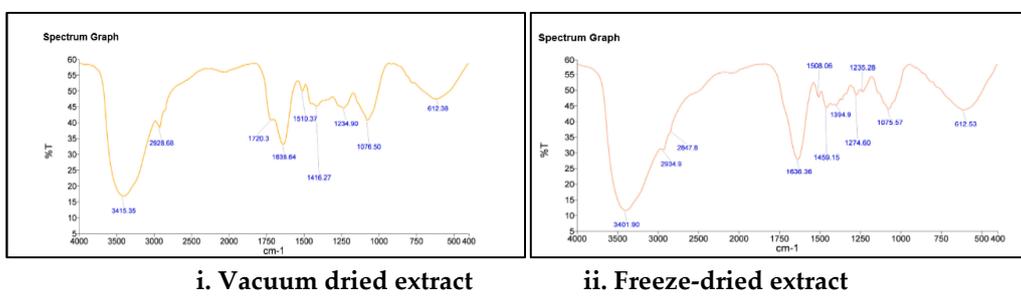


Figure S2: FT-IR spectra of vacuum dried and freeze-dried *Berberis* extract

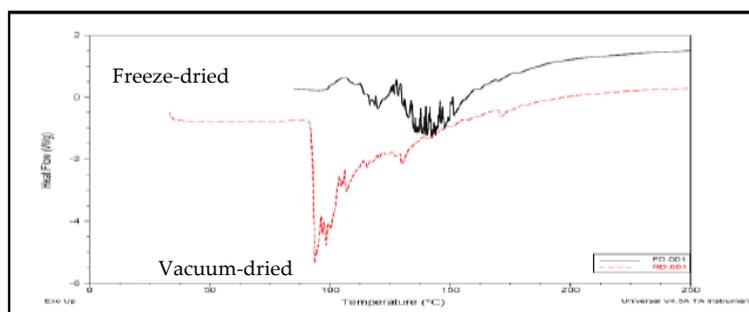


Figure S3: DSC curves of vacuum dried and freeze-dried *Berberis* extract

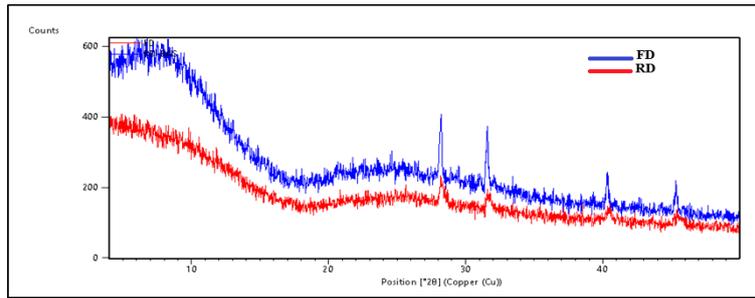


Figure S4: X-ray diffraction spectra vacuum dried (RD) and freeze-dried *Berberis* extract (FD)

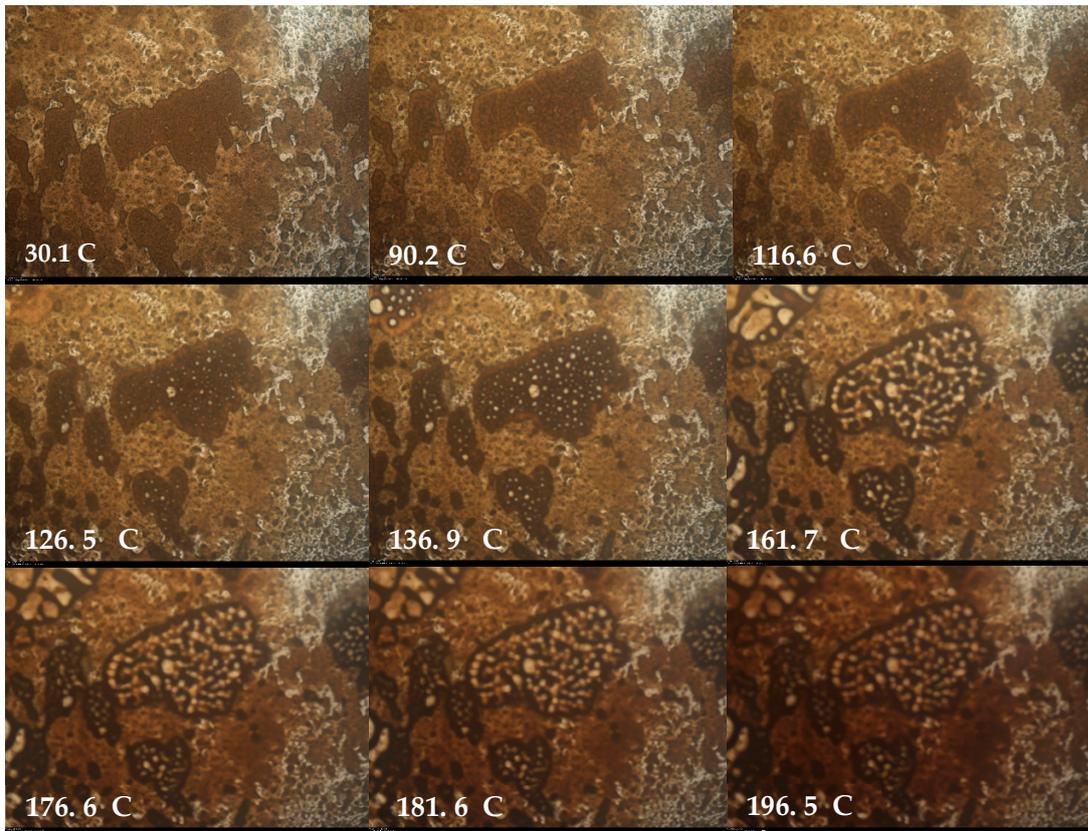


Figure S5: HSM images of vacuum oven-dried *Berberis* extract at different temperatures

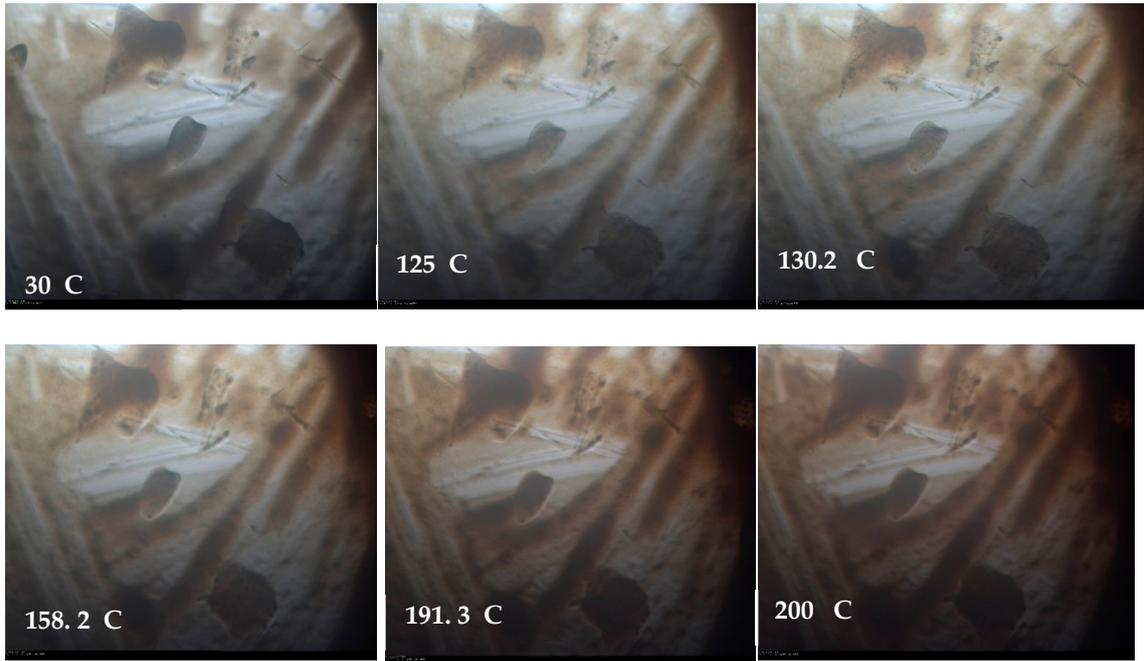
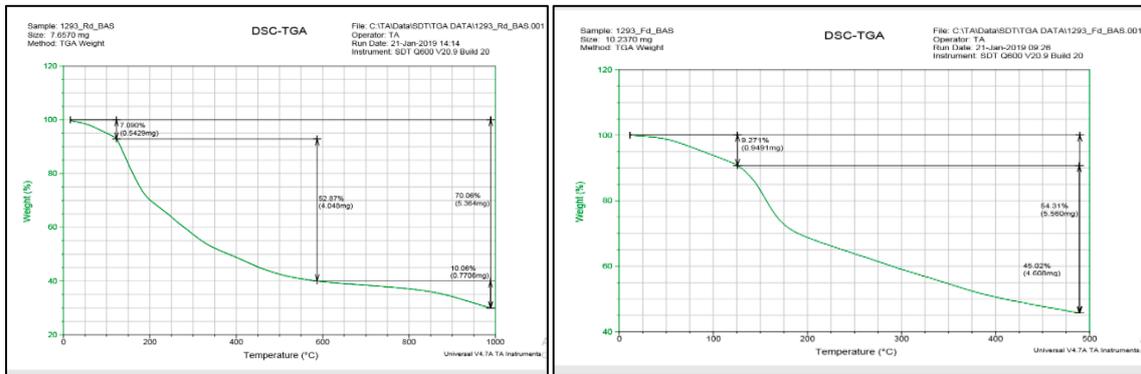


Figure S6: HSM images of freeze-dried *Berberis* extract at different temperatures



i. Vacuum dried extract

ii. Freeze-dried extract

Figure S7: TGA of vacuum dried and freeze-dried *Berberis* extract