

Supplementary information

Irreversible colorimetric bio-based curcumin bilayer membrane for Smart Food Packaging temperature control applications

Ariane Pereira^a, Maria A. Marques^b, Joaquim Alves^b, Maria Morais^{c, f}, Joana Figueira^{e, f}, Joana V.
Pinto^{e, f}, Felismina T.C. Moreira^{a, c, d*}

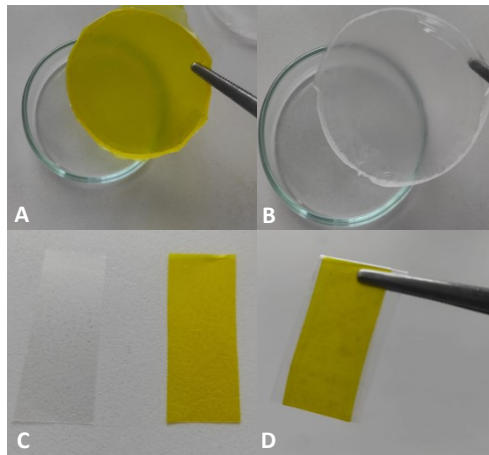


Figure S1 – Double layer membrane preparation. A) Curcumin MA1; B) TEA MB; c) membrane 1 and membrane 2 Double-layer membrane .

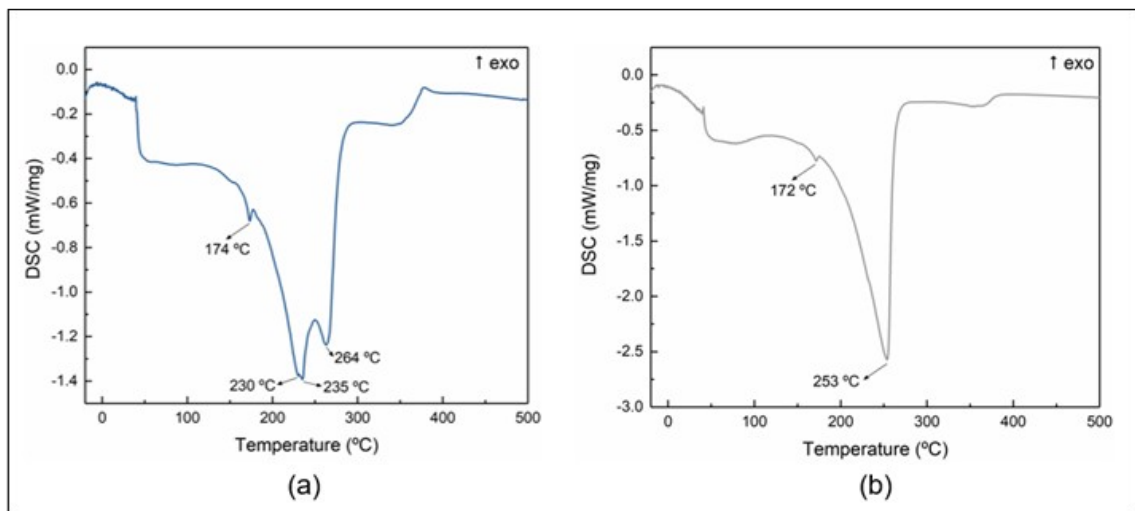


Figure S2 - (a)DSC curve of the membrane with cellulose acetate and glycerol.(b)DSC curve of the membrane with cellulose acetate and curcumin.

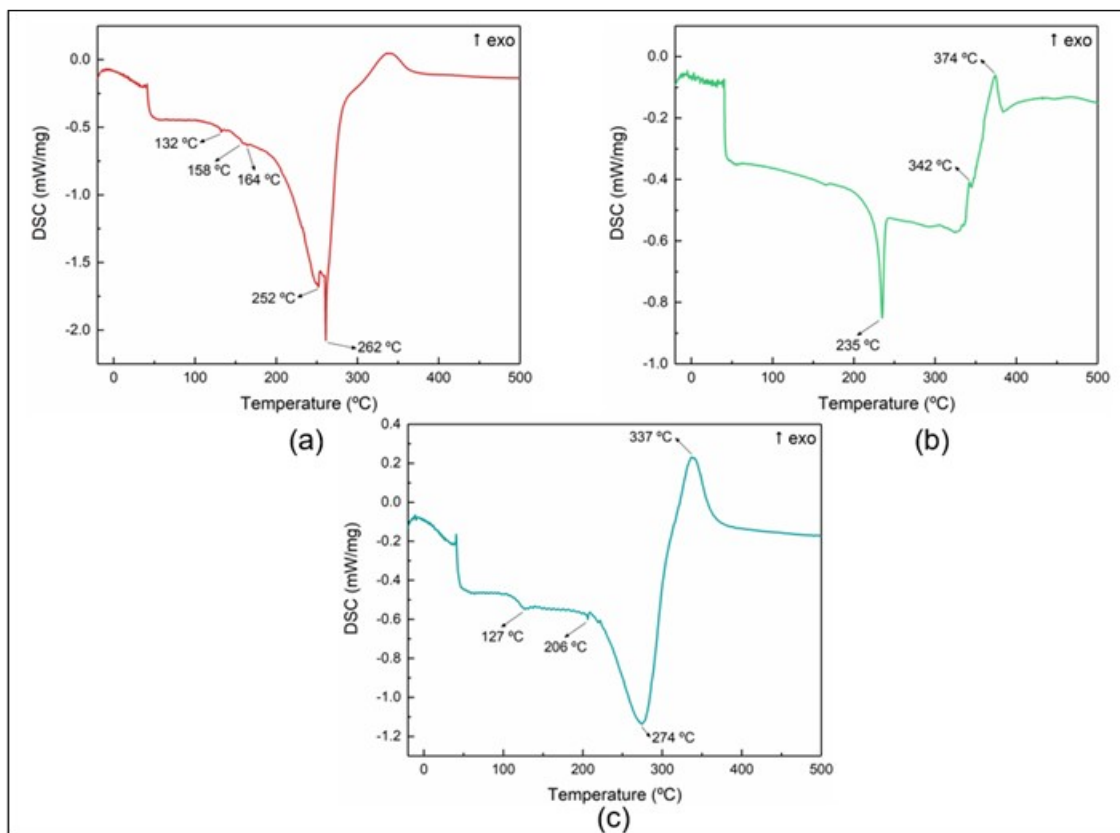


Figure S3- (a)DSC curve of the membrane with curcumin after the reaction with triethanolamine.(b)DSC curve of the membrane with cellulose acetate and sorbitol.(c)DSC curve of the membrane with triethanolamine and cellulose acetate.