

CITRIC ACID AS MULTIFUNCTIONAL AGENT IN BLOWING FILMS OF STARCH/PBAT

Patrícia Salomão Garcia, Maria Victória Eiras Grossmann* e Fábio Yamashita

Departamento de Ciência e Tecnologia de Alimentos, Universidade Estadual de Londrina, CP 6011, 86051-970 Londrina – PR, Brasil
Suzana Mali

Departamento de Bioquímica, Universidade Estadual de Londrina, CP 6011, 86051-970 Londrina – PR, Brasil

Luiz Henrique Dall’Antonia e Wagner José Barreto

Departamento de Química, Universidade Estadual de Londrina, CP 6011, 86051-970 Londrina – PR, Brasil

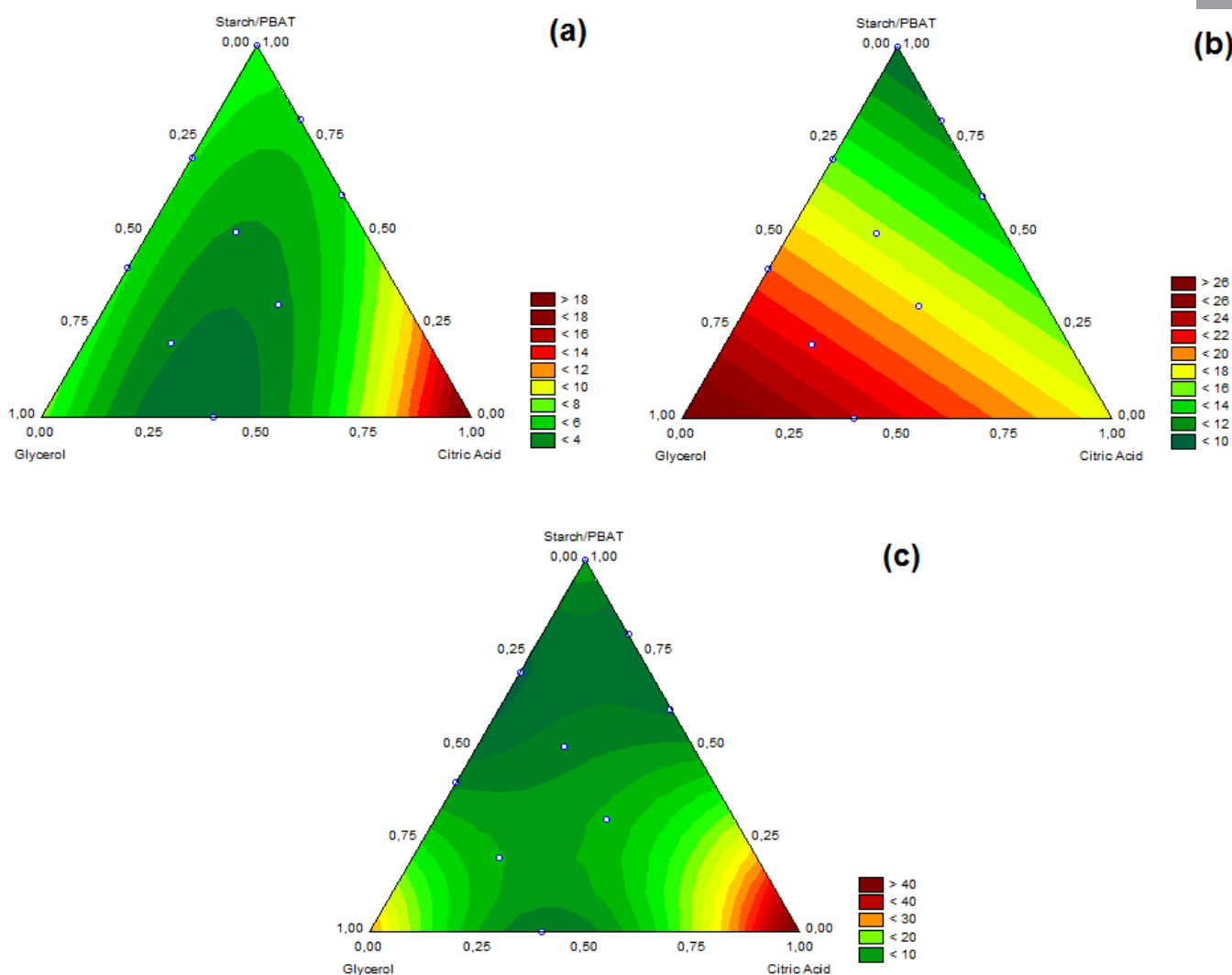


Figure 1S. Surface contour for (a) tensile strength (MPa), (b) elongation at break (%) and (c) water vapor permeability ($\times 10^{-11}$ g m⁻¹ s⁻¹ Pa⁻¹) of films produced with cassava starch/PBAT/glycerol/citric acid

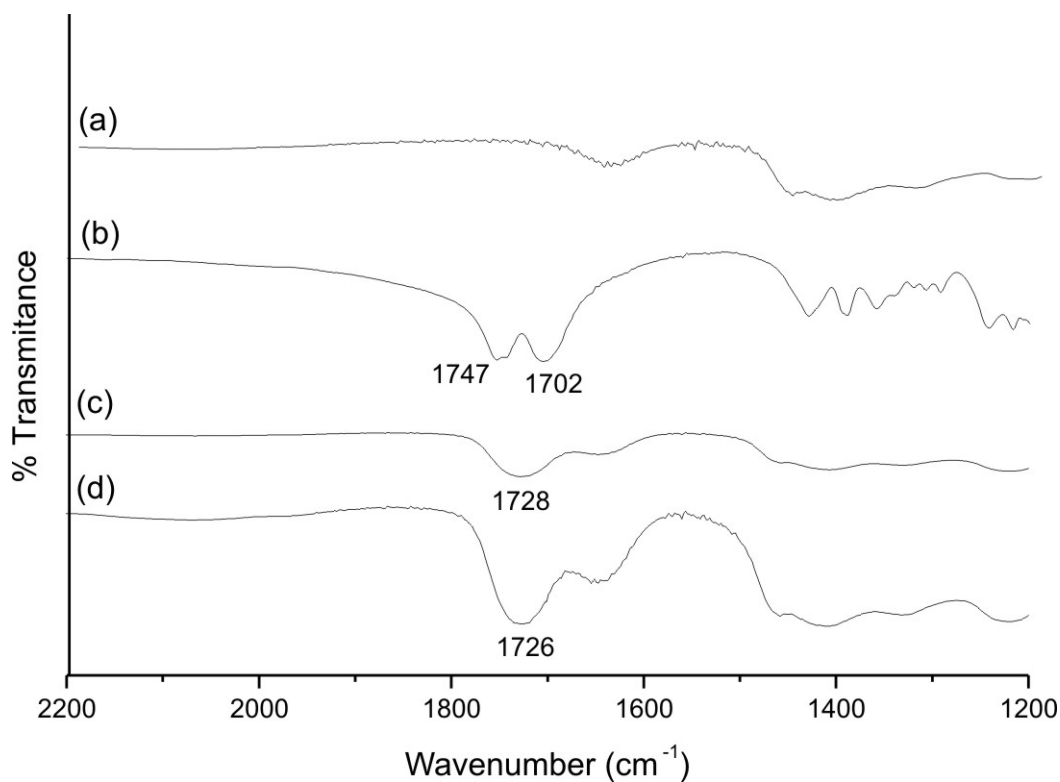


Figure 2S. Spectrum of FT-IR of: (a) glycerol, (b) citric acid, (c) glycerol + citric acid without heating and (d) glycerol + citric acid with heating

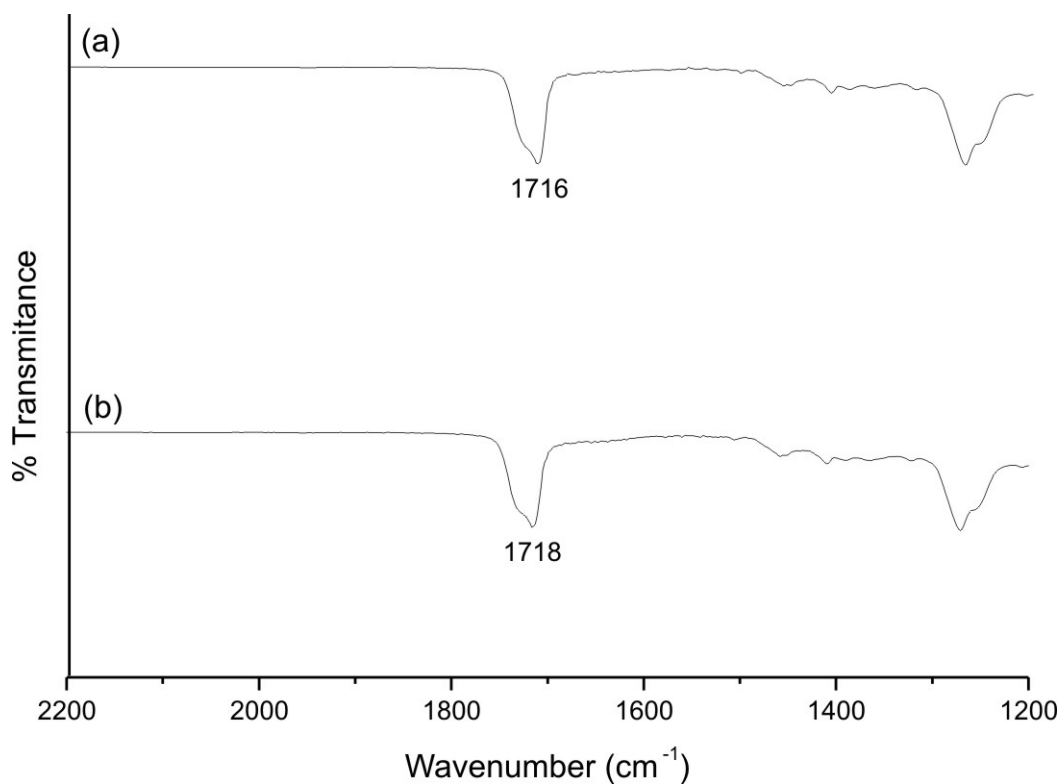


Figure 3S. Spectrum of FT-IR of: (a) starch/glycerol/PBAT and (b) starch/glycerol/PBAT/citric acid