

Supplementary material

Purification and Glutaraldehyde Activation Study on HCl-Doped PVA-PANI Copolymers with Different Aniline Concentrations

Jorge M. Guerrero ¹, Amanda Carrillo ^{2,*}, María L. Mota ^{2,3}, Roberto C. Ambrosio ⁴ and Francisco S. Aguirre ^{1,*}

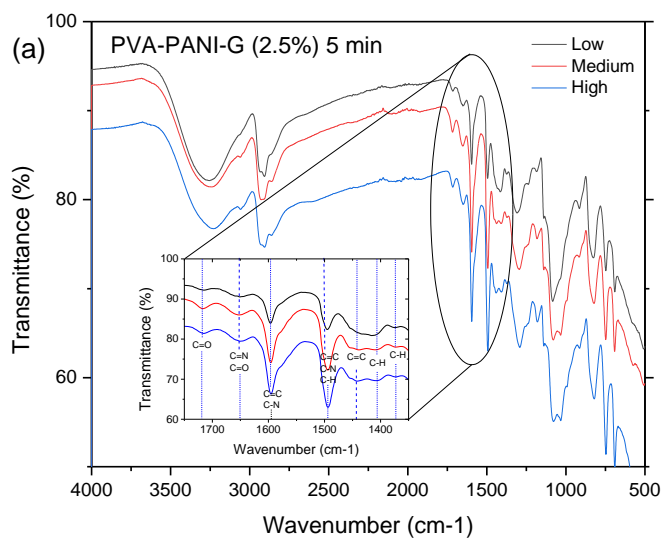
¹ Centro de Investigación en Materiales Avanzados, S.C., Alianza Norte 202, Parque de Investigación e Innovación Tecnológica, Apodaca, NL, C.P. 66600, México; jorge.guerrero@cimav.edu.mx (J.M.G); servando.aguirre@cimav.edu.mx (F.S.A)

² Instituto de Ingeniería y Tecnología, Universidad Autónoma de Ciudad Juárez, Av. Del Charro 610, Ciudad Juárez, CHIH, C.P. 32310, México; amanda.carrillo@uacj.mx (A.C.); mdllmotago@conacyt.mx (M.L.M.)

³ CONACYT, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, CHIH, C.P. 32310, México

⁴ Facultad de Electrónica, Benemérita Universidad Autónoma de Puebla, Puebla, C.P. 72000, México; roberto.ambrosio@correo.buap.mx (R.C.A.)

* Correspondence: amanda.carrillo@uacj.mx, Tel:+52-1-656-688-4800; servando.aguirre@cimav.edu.mx; Tel.: +52-1-811-721-6676



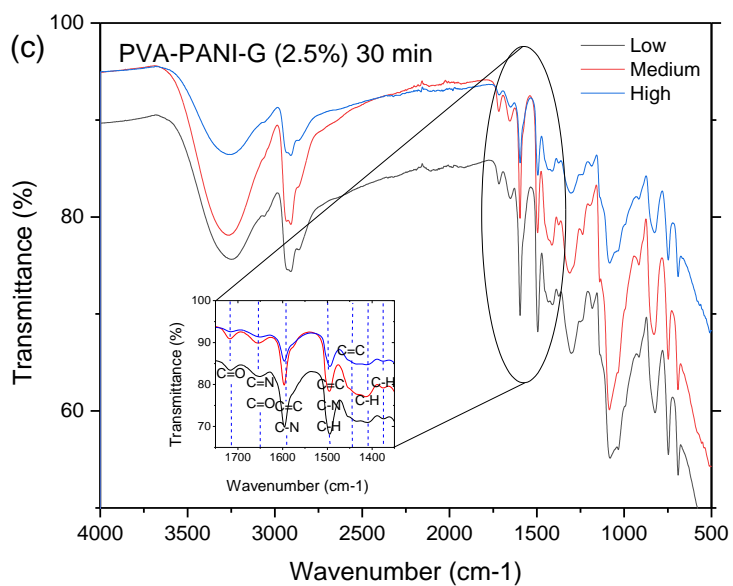
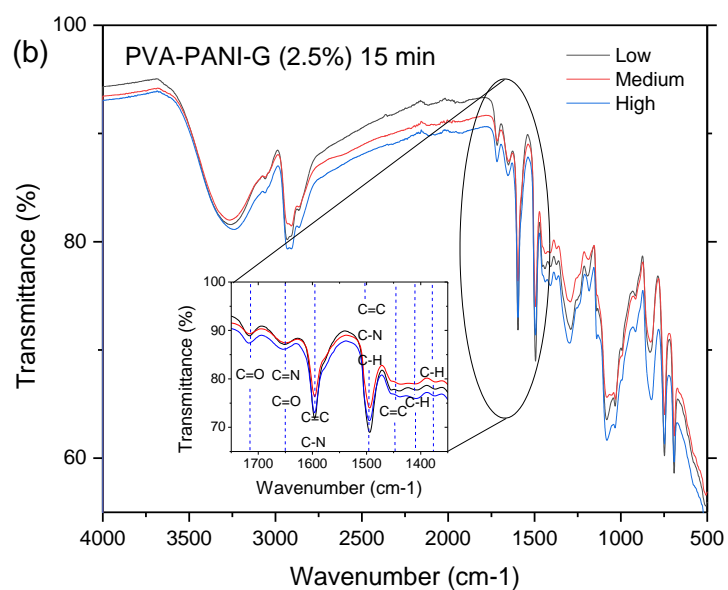


Figure S1: FTIR spectra of PVA-PANI gels at low, medium and high concentration of PANI activated with GA at 2.5% for: a) 5 min, b) 15 min, c) 30 min.

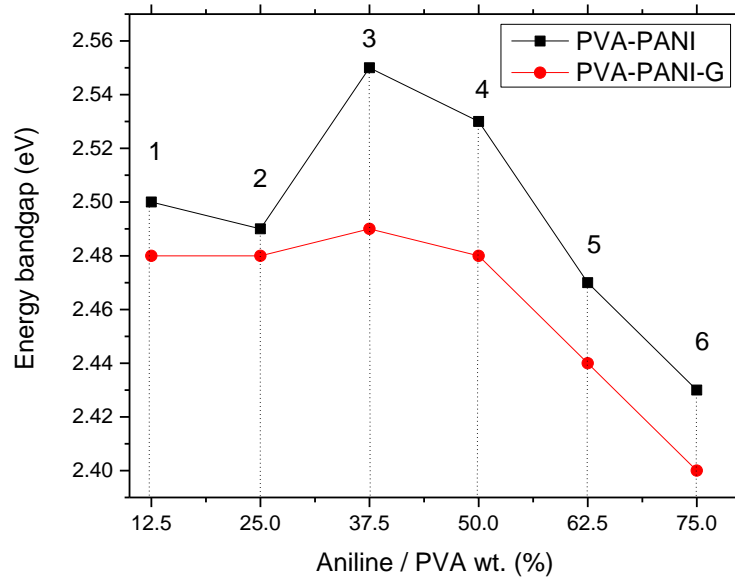
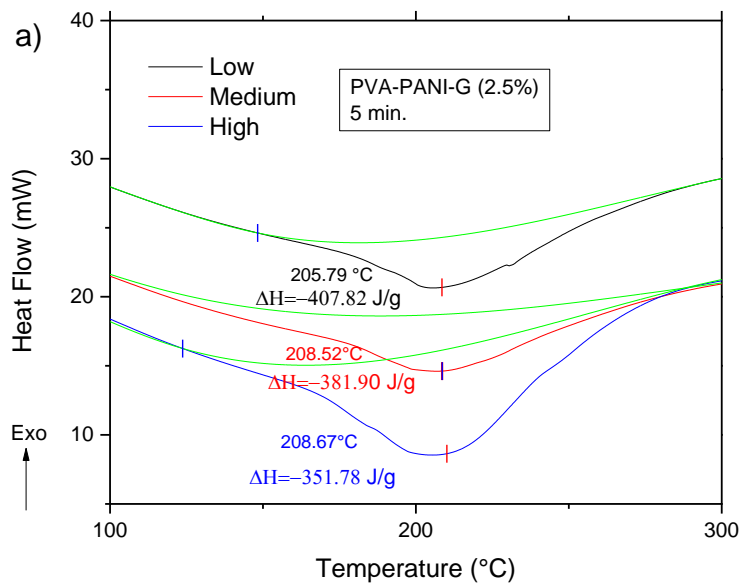


Figure S2: Bandgap variation of PV-PANI and PVA-PANI-G for different monomer concentrations.



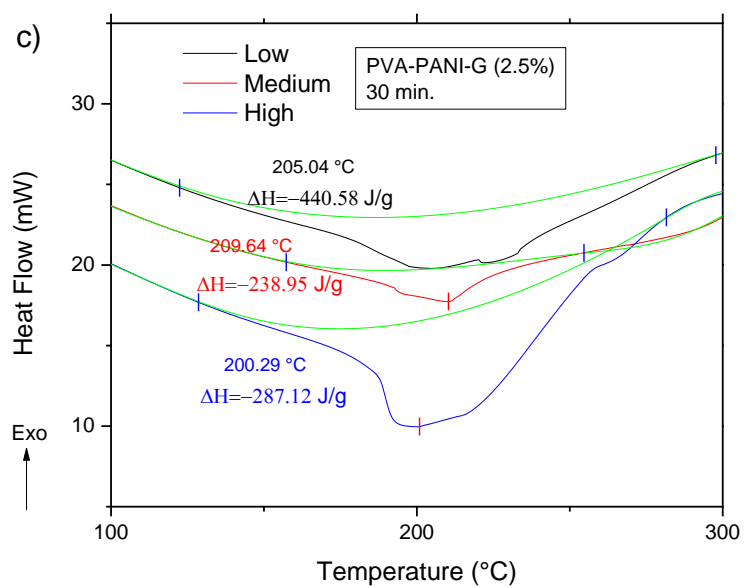
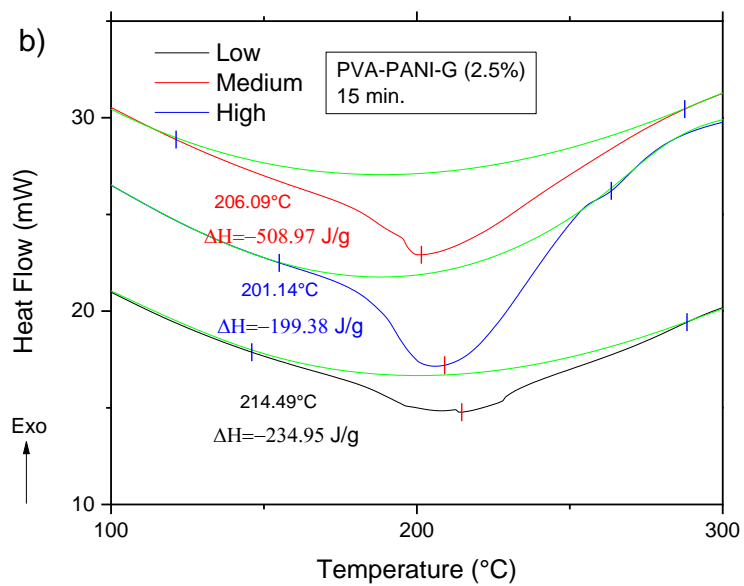
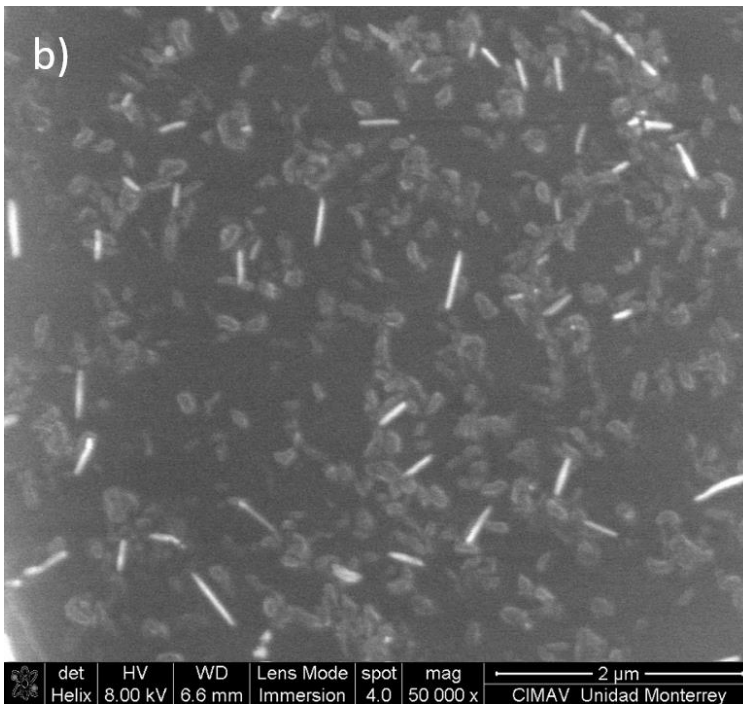
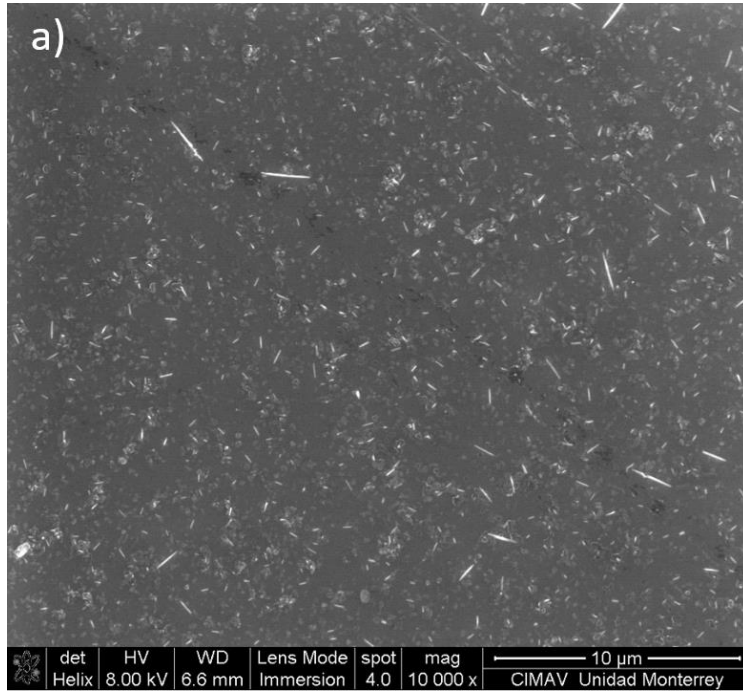


Figure S3: DSC thermogram of purified PVA-PANI gels at low, medium and high concentration of PANI activated with GA at 2.5% for: a) 5 min, b) 15 min, c) 30 min.



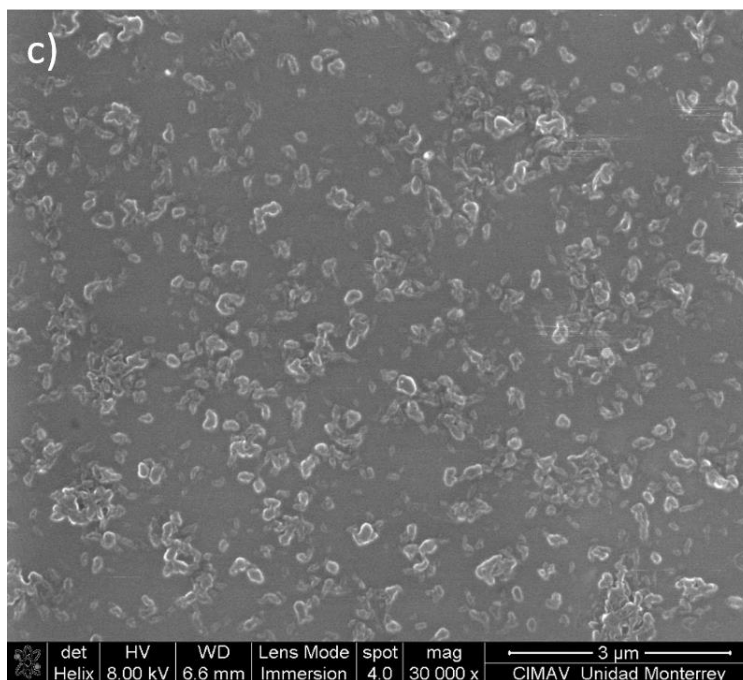


Figure S4: SEM micrographs of purified PVA-PANI thin films at a) low, b) medium and c) high concentration of aniline activated with 1% GA for 30 minutes.