

## SUPPORTING INFORMATION

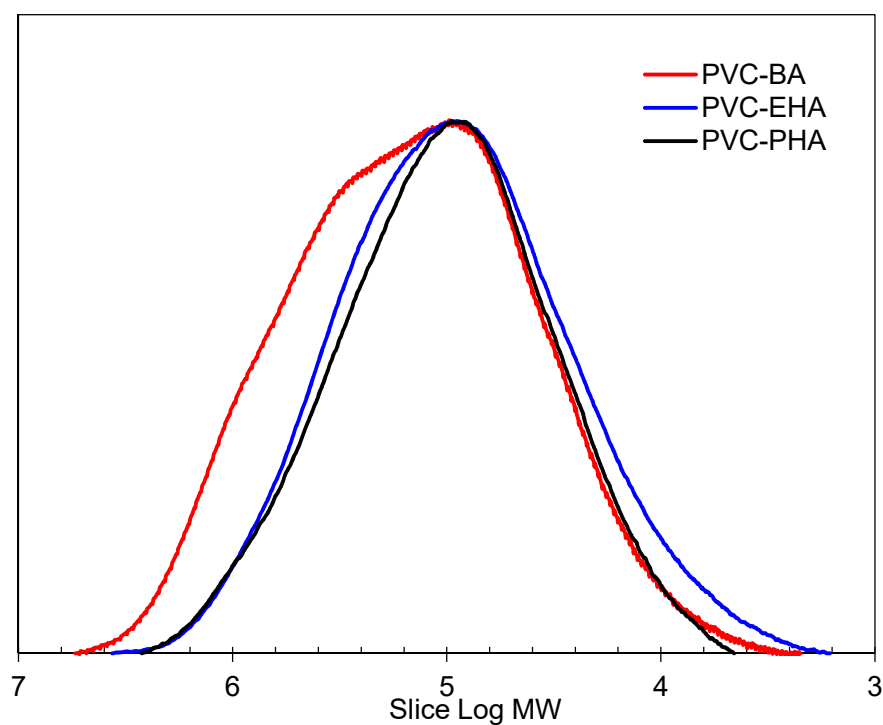
# How is Rheology Involved in 3D Printing of Phase-Separated PVC-Acrylate Copolymers Obtained by Free Radical Polymerization

Mario Iván Peñas <sup>1</sup>, Miren Itxaso Calafel <sup>1,\*</sup>, Roberto Hernández Aguirresarobe <sup>1</sup>, Manuel Tierno <sup>2</sup>, José Ignacio Conde <sup>2</sup>, Belén Pascual <sup>2</sup> and Antxon Santamaría <sup>1,\*</sup>

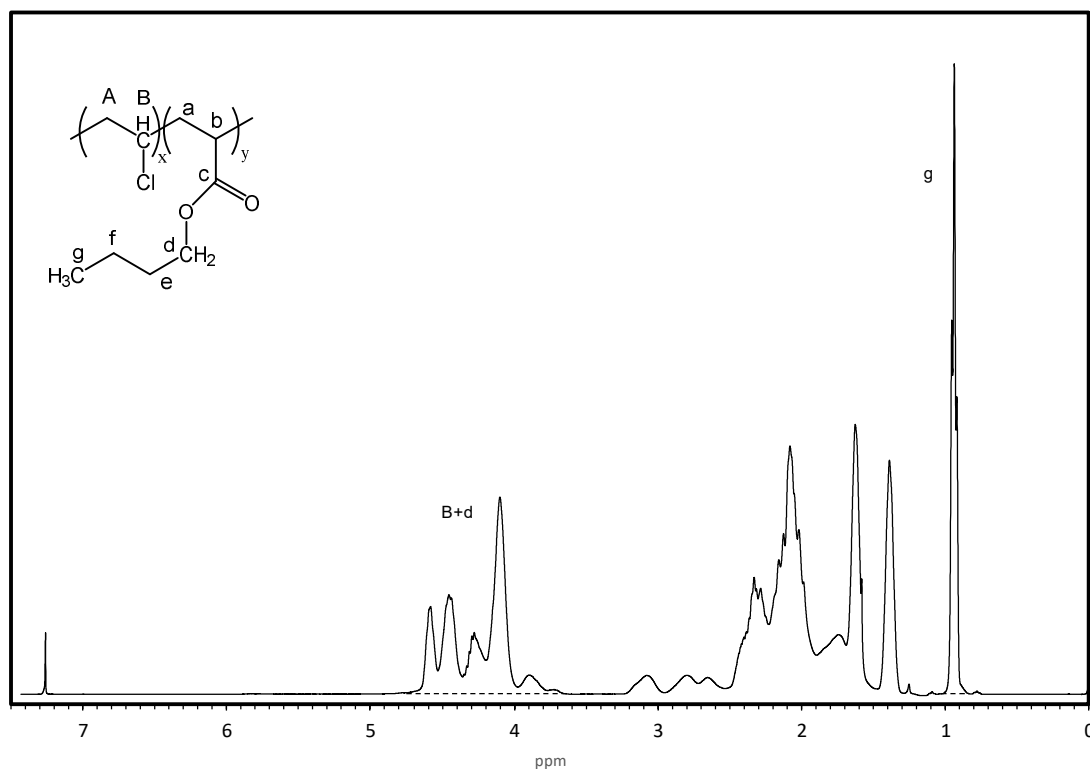
<sup>1</sup> POLYMAT and Polymers and Advanced Materials: Physics, Chemistry and Technology Department, Faculty of Chemistry, UPV/EHU, Avda. Tolosa 72, 20018 San Sebastian, Spain; mpenas.3@alumni.unav.es (M.I.P.); roberto.hernandez@ehu.eus (R.H.A.)

<sup>2</sup> ERCROS S.A., Innovation and Technology Department, Chlorine Derivatives Division, Diagonal 595, 08014 Barcelona, Spain; mtierno@ercros.es (M.T.); iconde@ercros.es (J.I.C.); bpascual@ercros.es (B.P.)

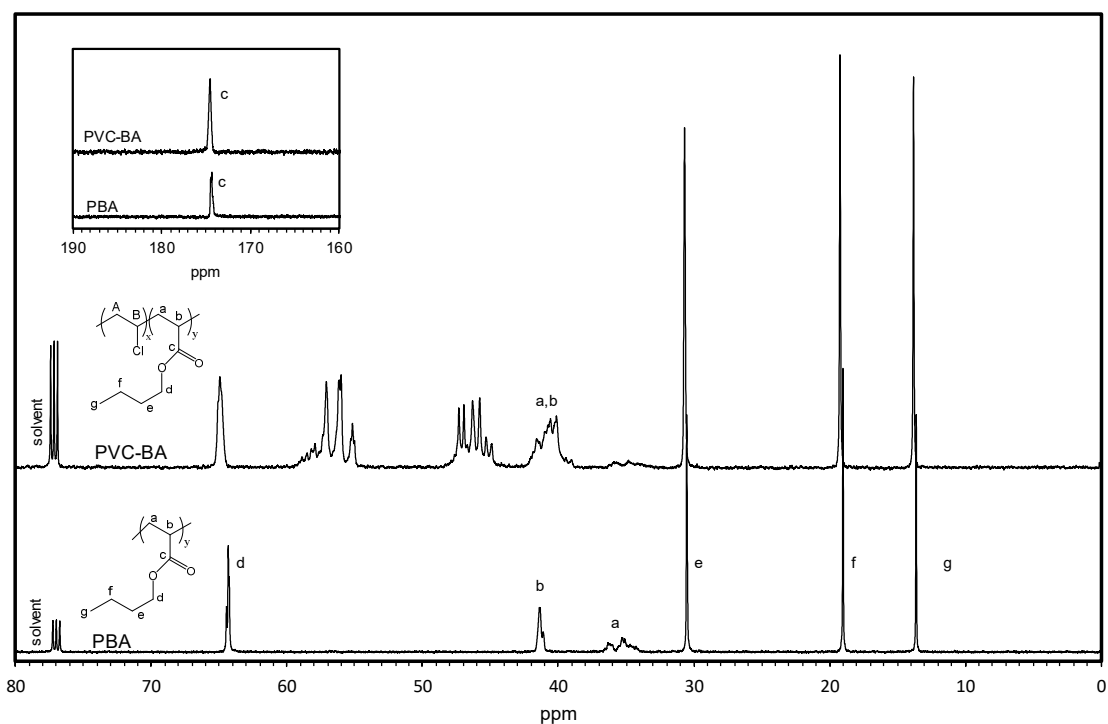
\* Correspondence: itxaso.calafel@ehu.eus (M.I.C.); antxon.santamaria@ehu.eus (A.S.)



**Figure S1.** Normalized SEC chromatograms for the synthesized copolymers.



**Figure S2.** <sup>1</sup>H-NMR spectra for synthesized PVC-acrylate copolymers (PVC-BA), as well as the corresponding line assignment. The copolymer composition was calculated from the integral areas of characteristics bands of BA and VC comonomers, d: 4.09 ppm (s, 2H, OCH<sub>2</sub>) and 0.95 ppm (t, 3H, CH<sub>3</sub>) for BA and 4.47 ppm (t, 1H, CH) for VC (referred to solvent).



**Figure S3.** Comparison between  $^{13}\text{C}$ -NMR spectra for synthesized PVC-BA copolymers and PBA homopolymer. The shifting of the lines from 35 ppm to 40 ppm indicates the presence of alternative AVA and/or VAV sequences as predominant structures instead of AAA homopolymer sequences. However, although the intensity is very low, the presence of such homopolymer sequences can not be discarded.