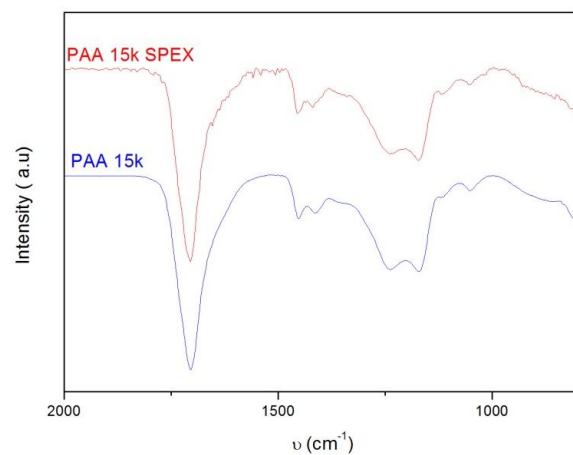
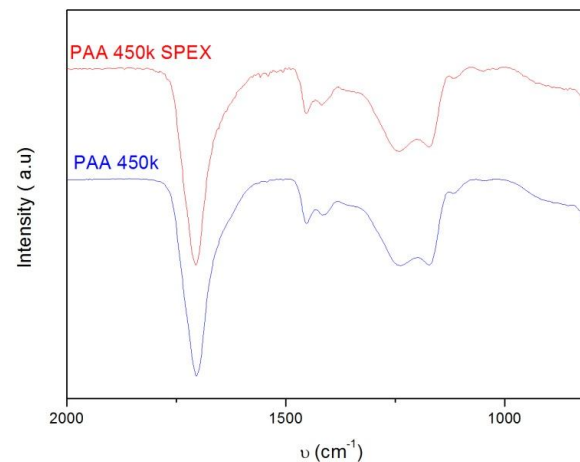


a)



b)



c)

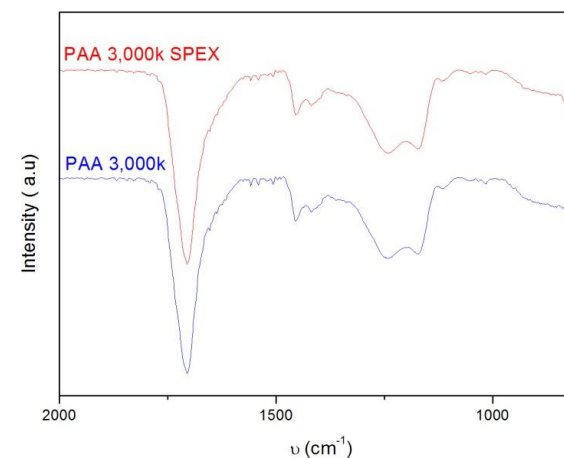


Figure S1: IRTF spectra (ATR) of pristine (blue line) and 30 mn SPEX ball milled (red line) PAA 15k (a), PAA 450k (b) and PAA 3000k (c)

Formulation 1	Porosity %	Loading (mg.cm ⁻²)
PAA 15	65	1.19
PAA 450	60	1.19
PAA 3000	60	1.05

Formulation 2	Porosity %	Loading (mg.cm ⁻²)
PAA 450	70	1.47

Formulation 3	Porosity %	Loading (mg.cm ⁻²)
PAA 15	65	1.12
PAA 450	70	1.12
PAA 3000	70	1.26

Table S1: Porosity (%) and active mass loading (mg.cm⁻²) of 15k, 450k and 3000k PAA based electrodes using formulation 1 (a), formulation 2 (b) and formulation 3 (c)