

Supplementary Section

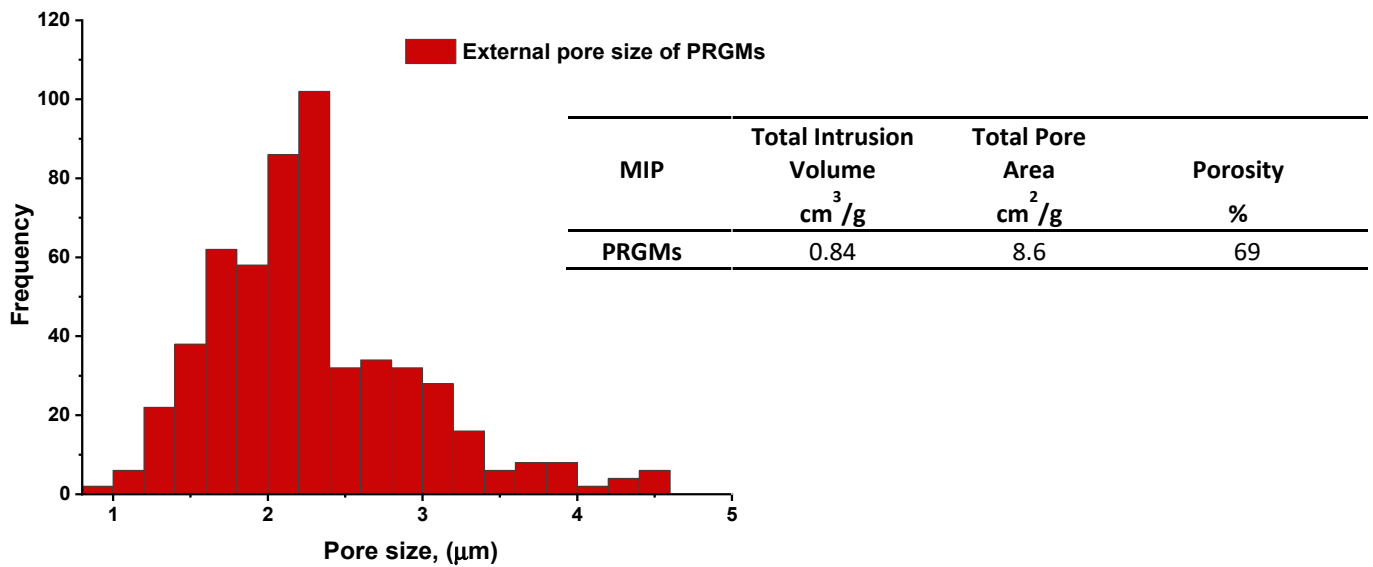


Figure S1: Surface pore determination using SEM assisted Image J analysis with inset showing mercury porosimetry analysis of internal pores of PRGMs.

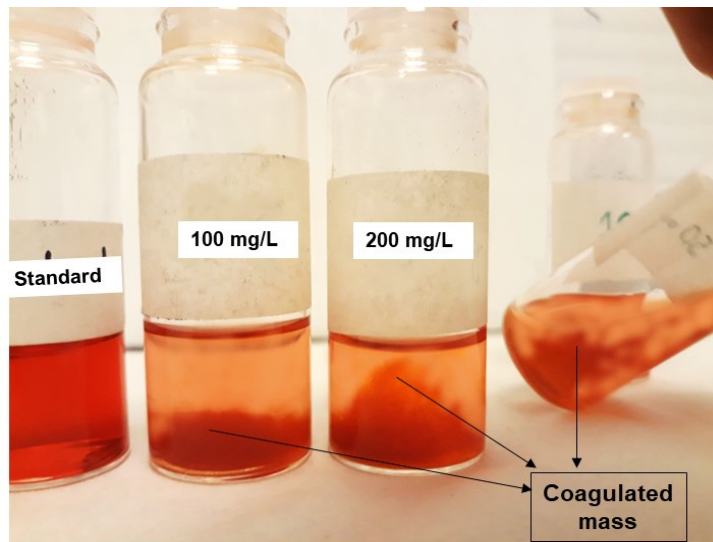


Figure S2: Effect of dye concentration on adsorption into W-PRGMs for AR88 (PRGMs dose= 10 g/L with pH 2.5 and temperature of 22 ± 2 °C)

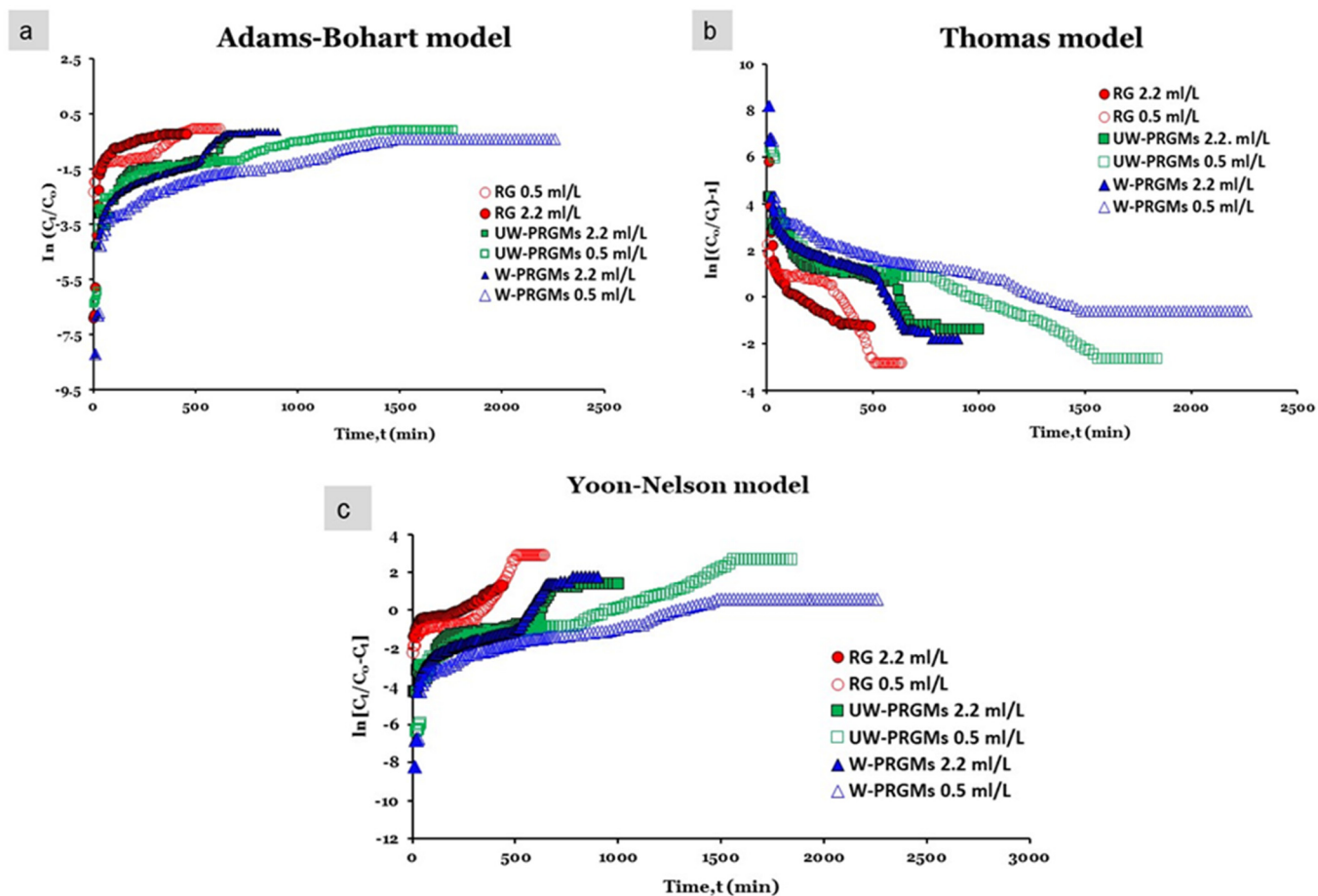


Figure S3: a) Adams-Bohart model, b) Thomas model, and c) Yoon-Nelson model at different flowrates ($C_0 = 100 \text{ mg/L}$).

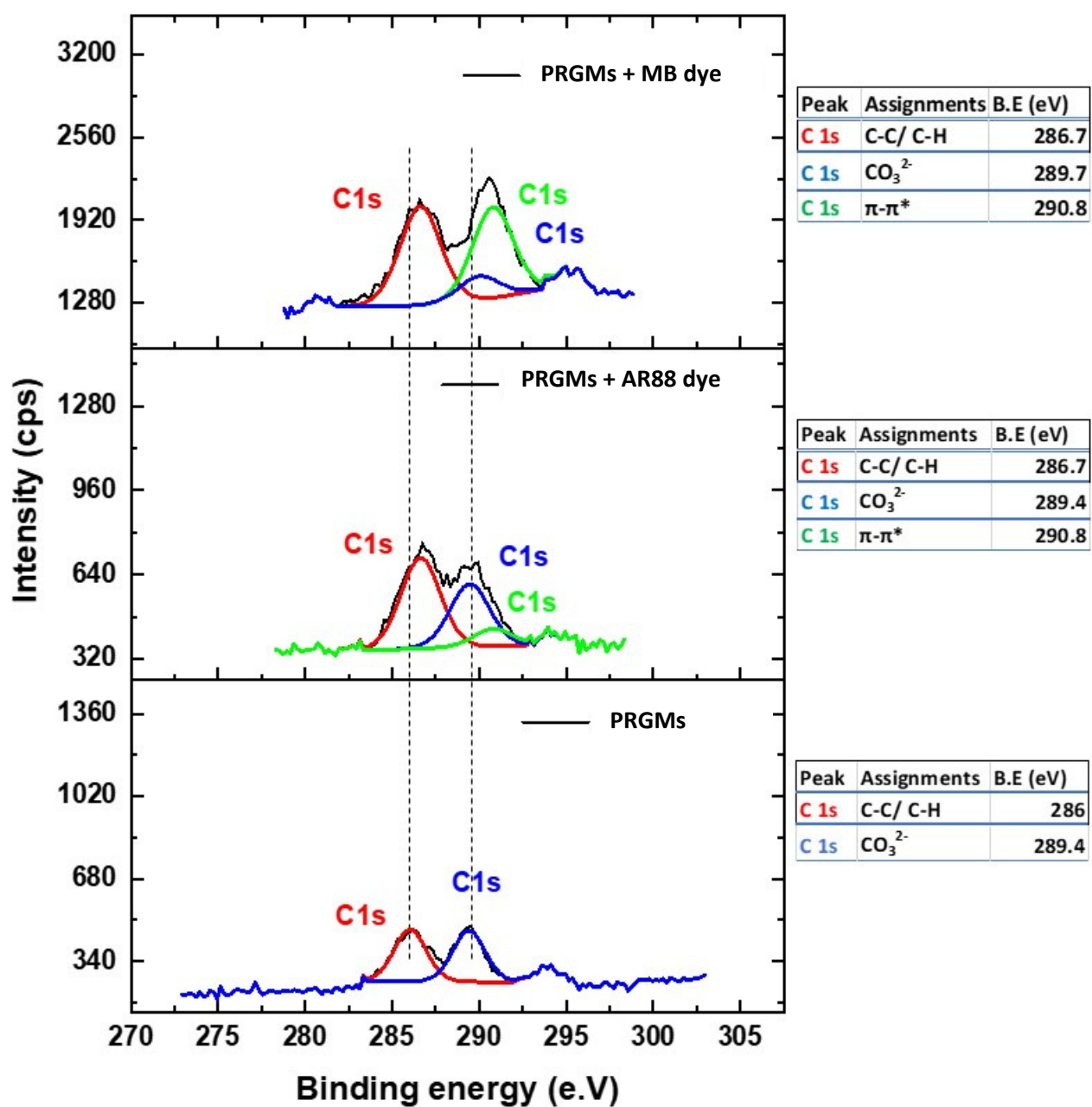


Figure S4: High resolution XPS spectra of C 1s for PRGMs before and after AR88 and MB adsorption.

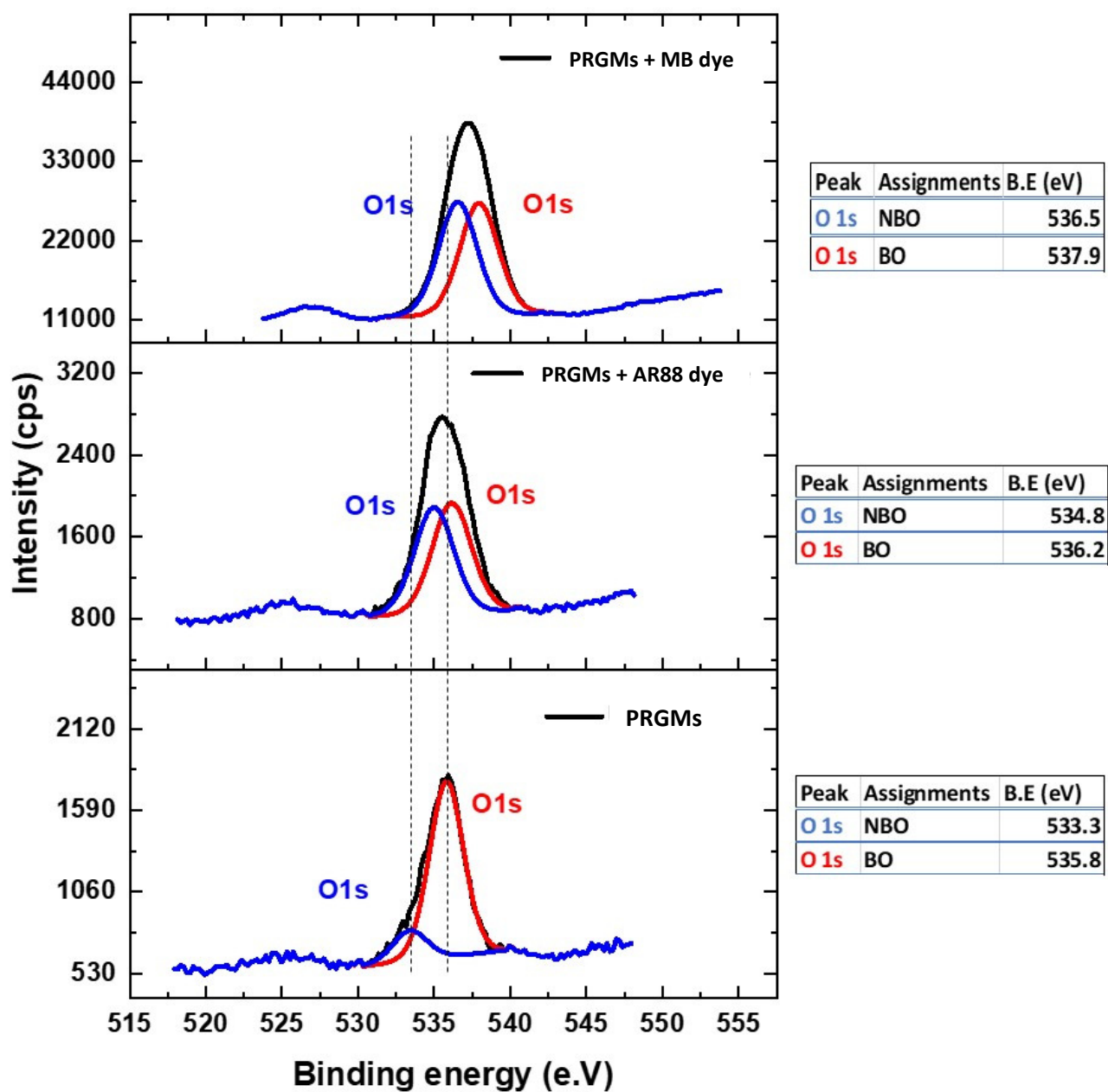


Figure S5: High resolution XPS spectra of O 1s for PRGMs before and after AR88 and MB adsorption.

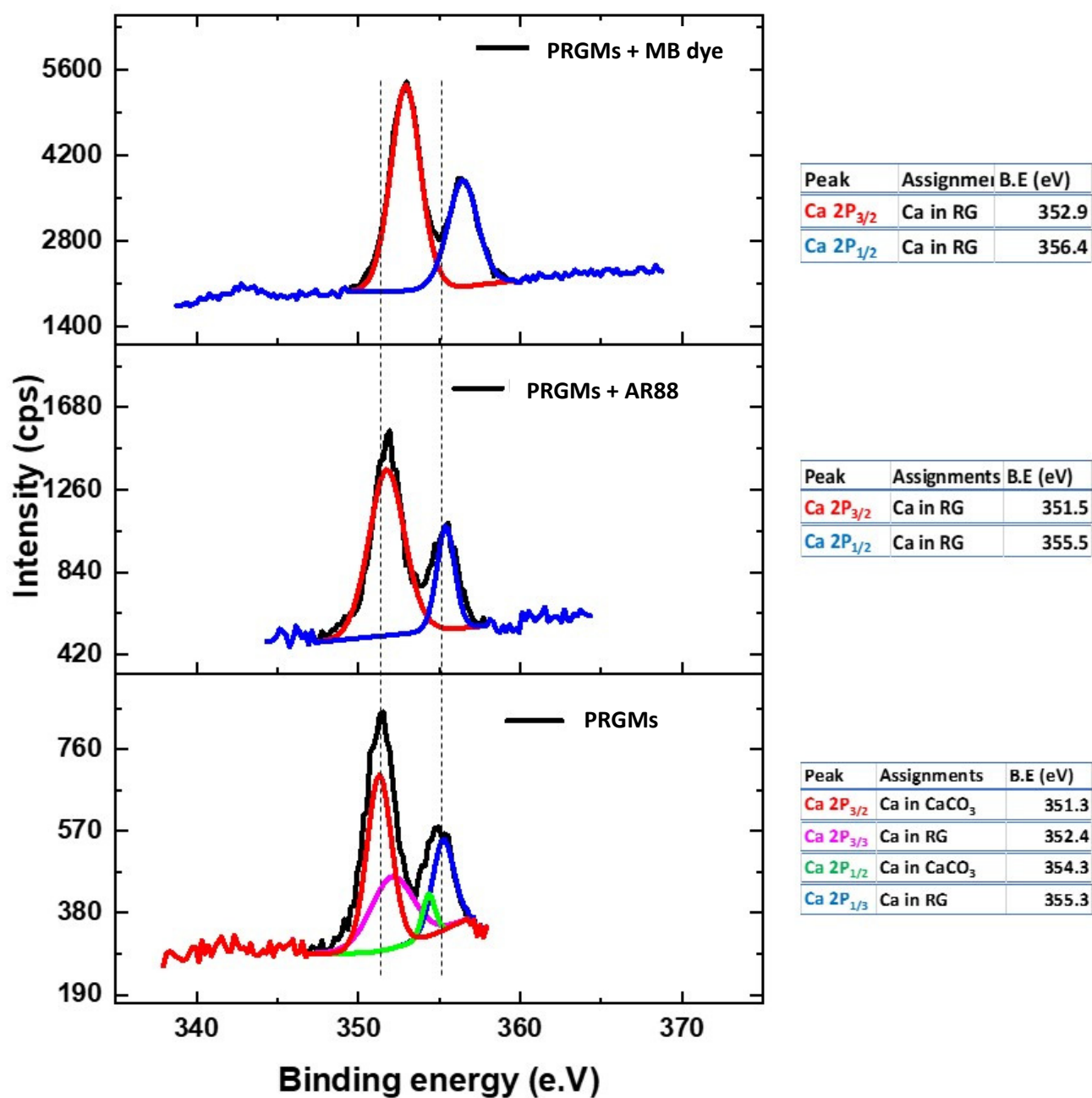


Figure S6: High resolution XPS spectra of Ca 2p for PRGMs before and after AR88 and MB adsorption.

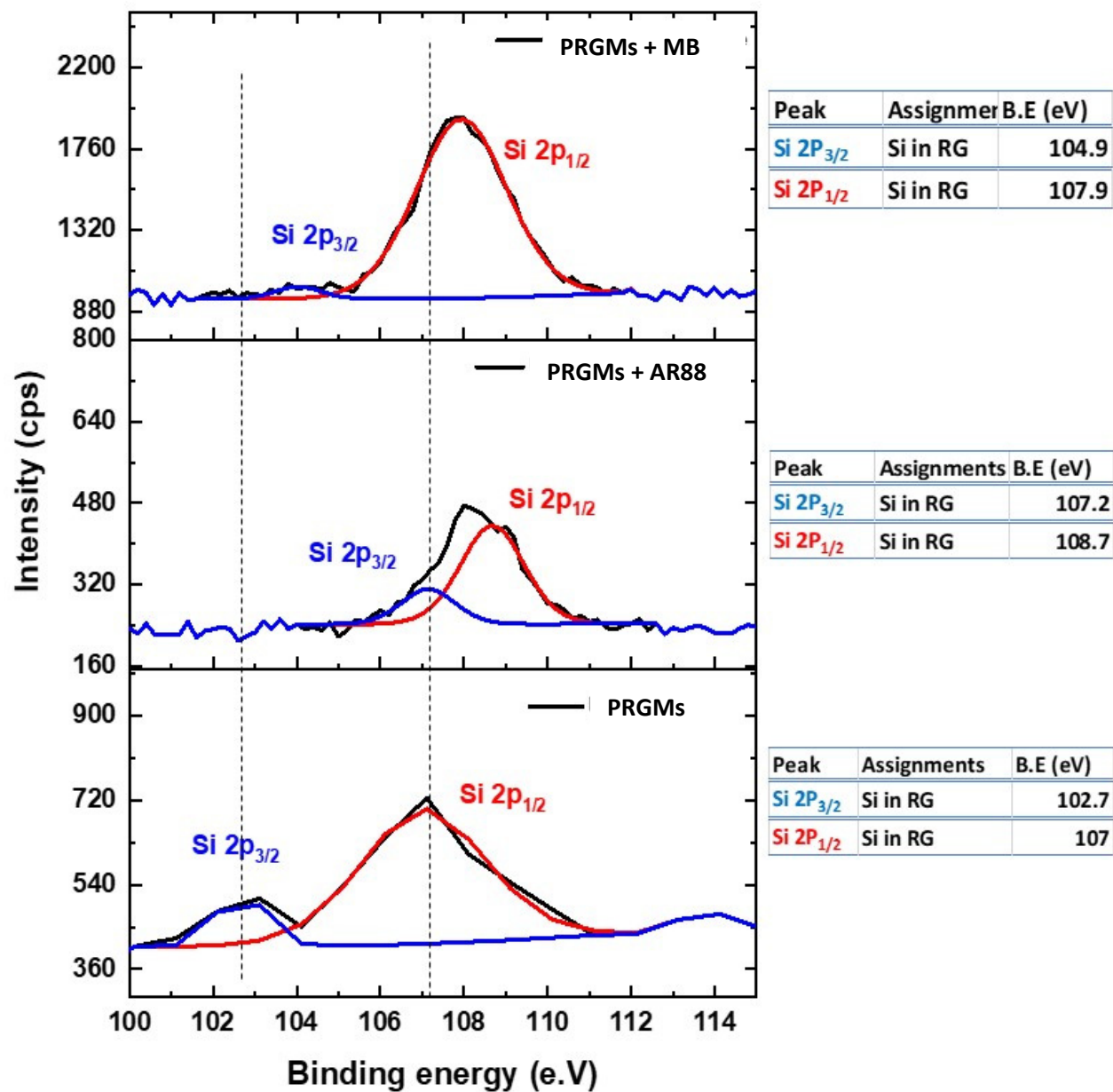


Figure S7: High resolution XPS spectra of Si 2p for PRGMs before and after AR88 and MB adsorption.