Electronic supplementary information for : Enhanced Li^+ Charge Storage in Naphthalene Diimide/Vanadium Pentoxide Intercalates.

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1 NDI-ph caracterization

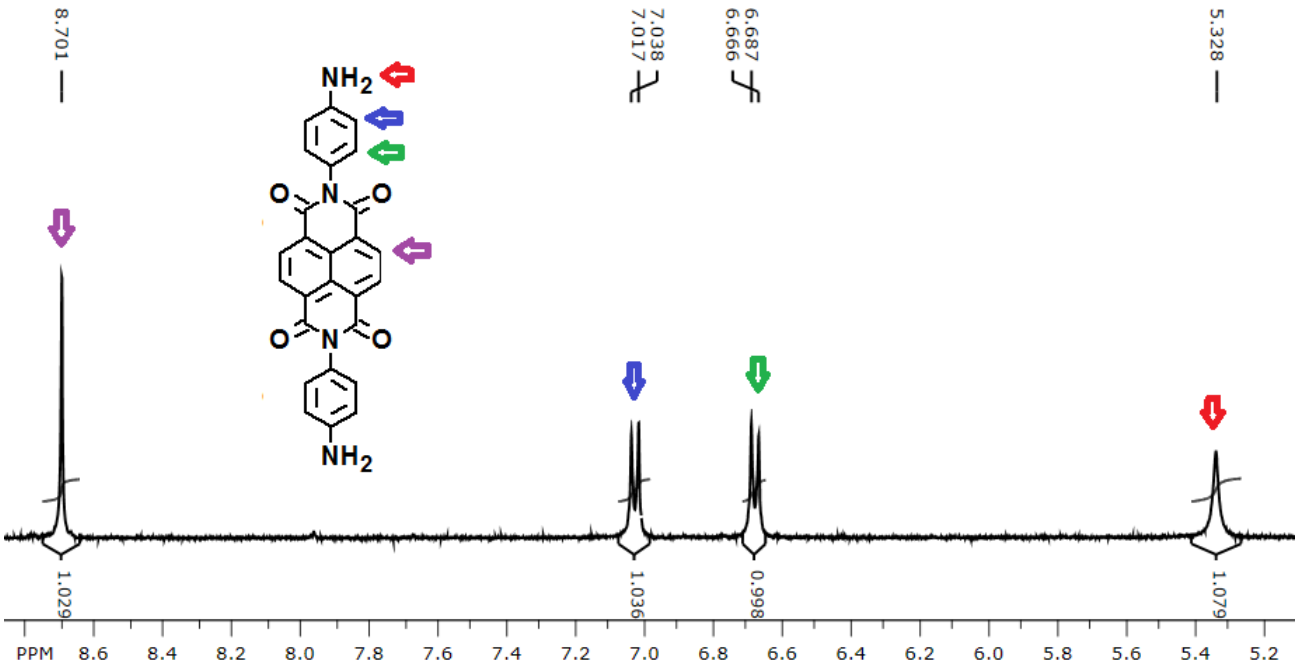

Fig. 1 ^{1}H-NMR spectrum of NDI-ph.

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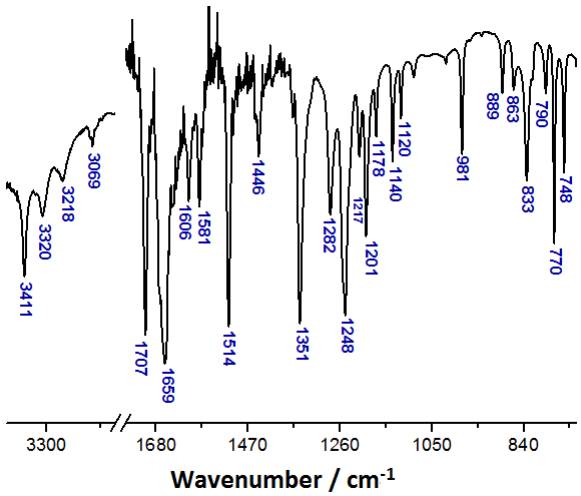

Fig. 2 FTIR spectrum of NDI-ph.

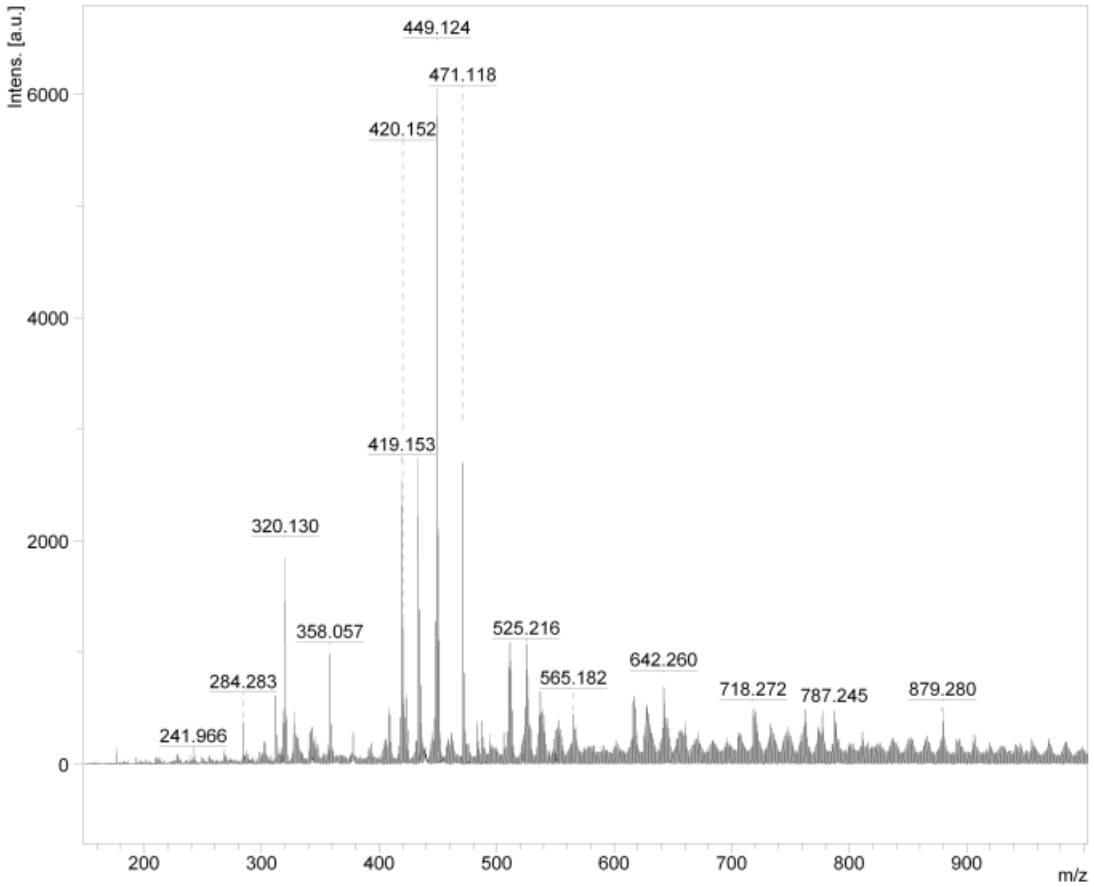

Fig. 3 Maldi-TOF for NDI-ph.

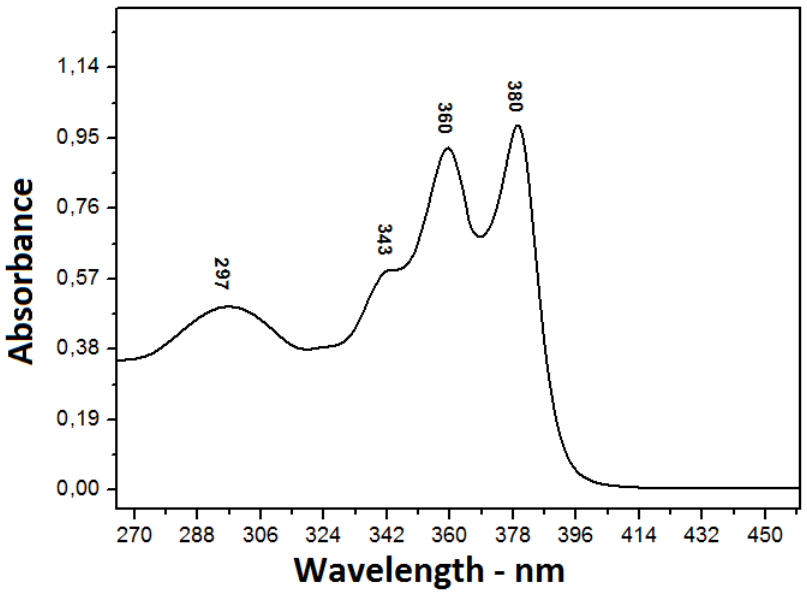

Fig. 4 Electronic spectrum of NDI-ph in DMF

2 Composites caracterization

Fig. 5 Gels containing NDI-ph, and the control sample, before drying.

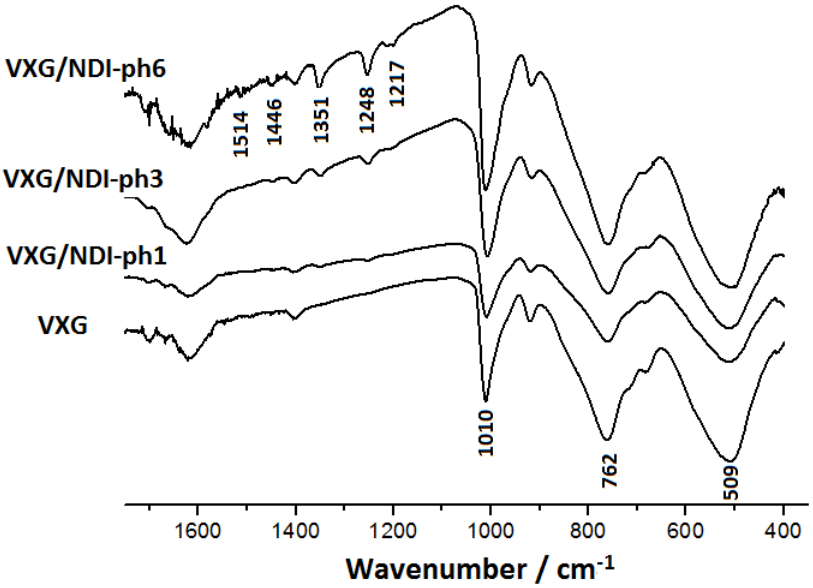

Fig. 6 FTIR spectra of the composites and VXG.

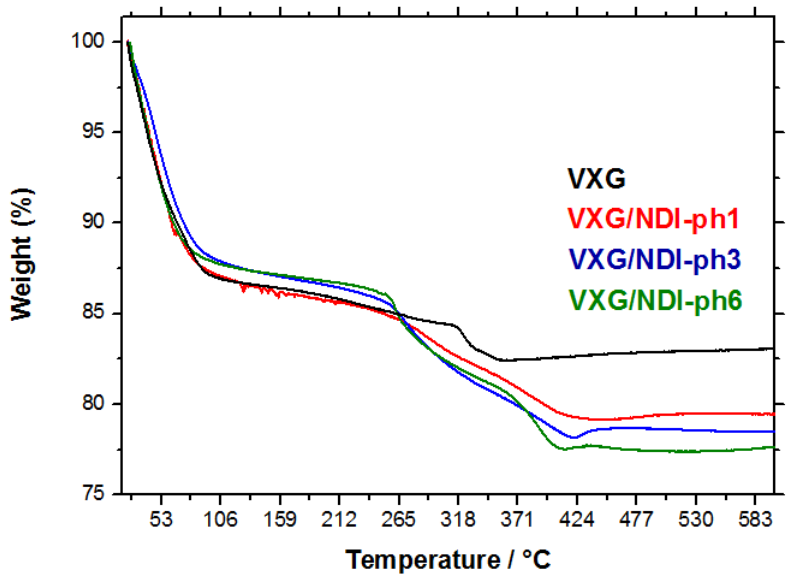

Fig. 7 Thermogravimetric analysis of the composites and VXG.

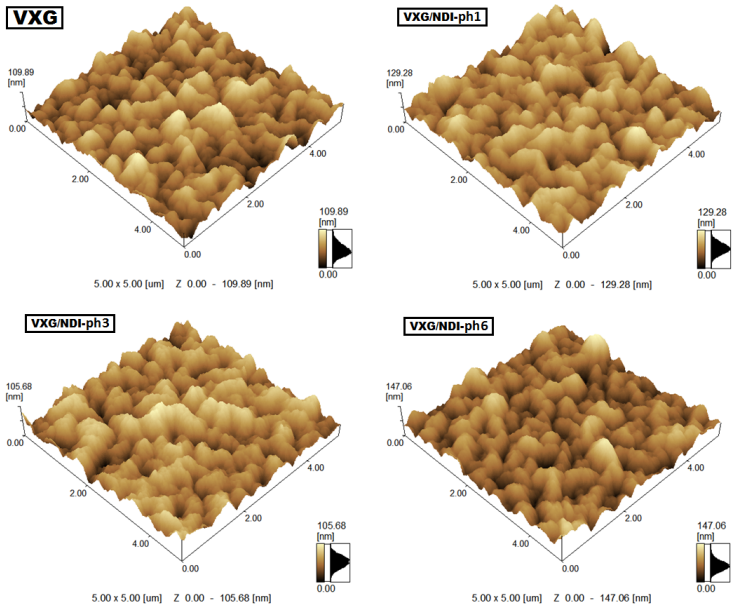

Fig. 8 afm

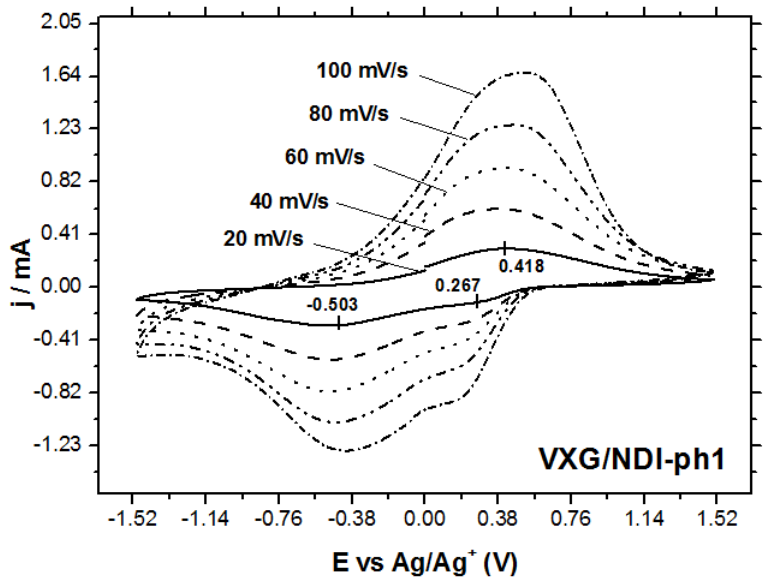

Fig. 9 Cyclic voltammograms of VXG. at 20mV/s ($LiClO_4$/MeCN).

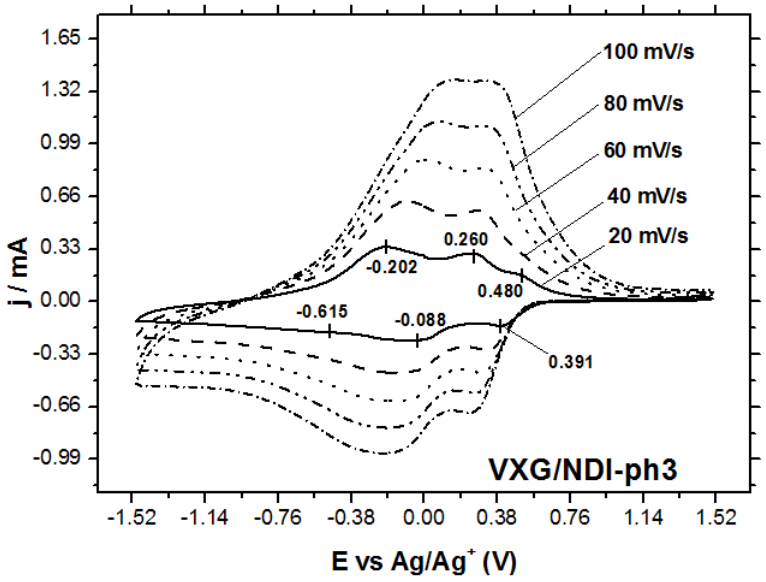

Fig. 10 Cyclic voltammograms of VXG at 20mV/s ($LiClO_4$/MeCN).

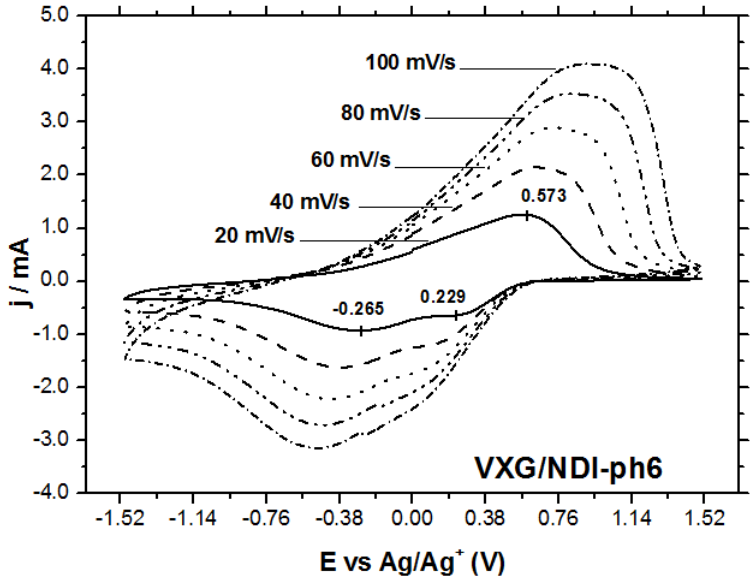

Fig. 11 Cyclic voltammograms of VXG.at 20mV/s ($LiClO_4$/MeCN).

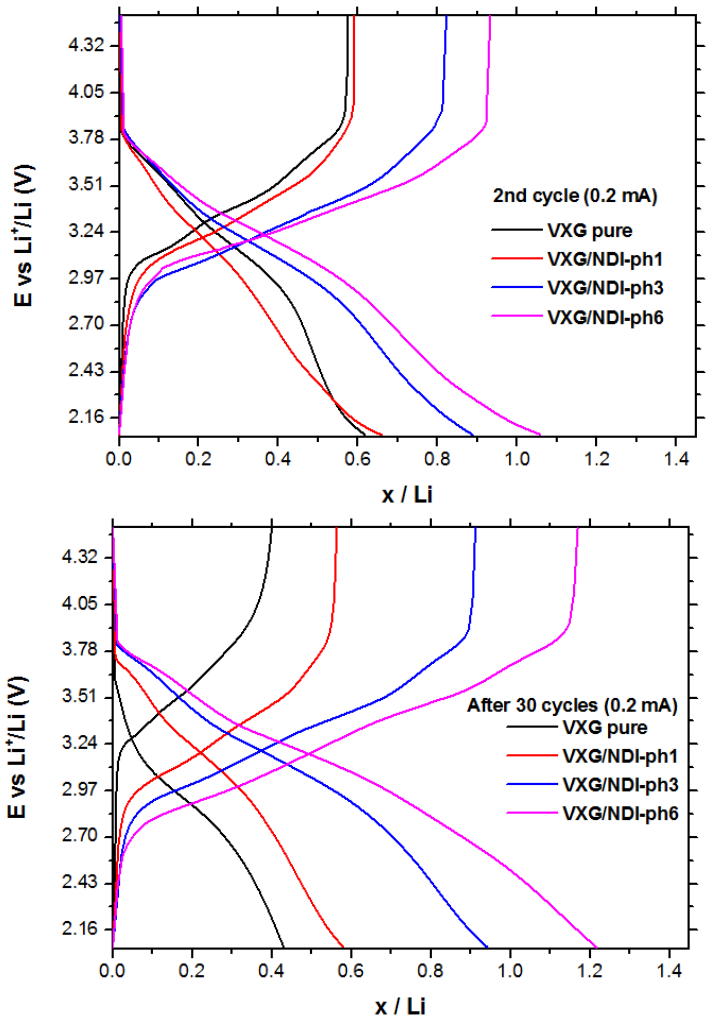

Fig. 12 (a) Lithium ion inserted/extracted in the films as a function of discharge/charge current (cutoff E 4.47 V to 2.07 vs Li^+/Li, j = 0.2 mA) per mol of V_2O_5; (b) Lithium ion inserted/extracted in the films as a function of discharge/charge current (cutoff E 4.47 V to 2.07 vs Li^+/Li, j = 0.2 mA) per mol of V_2O_5 - after 30th cycles.