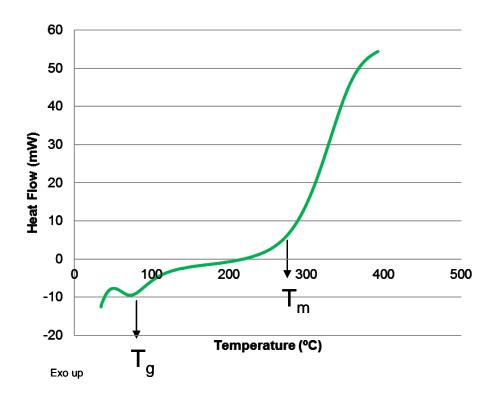
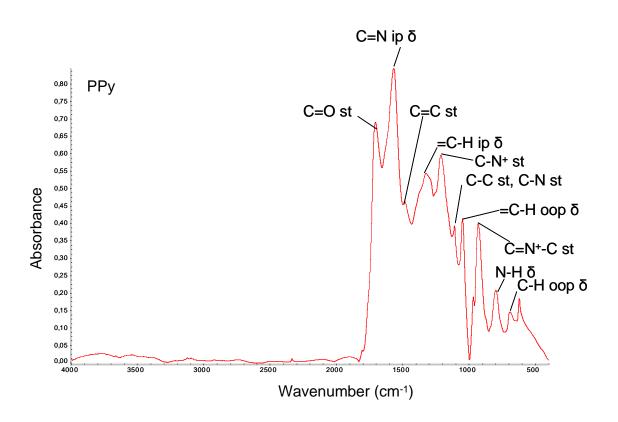


**Supplementary information. Fig. 1.** XRD patterns of: (a) chemically synthesized polypyrrole; (b) polypyrrole impregnated with  $H_2PtCl_6$ ; (c-e) polypyrrole impregnated with  $H_2PtCl_6$  and treated with Ar plasma 10 min x 6 times at 100, 150 and 200 W; (f) polypyrrole impregnated with  $H_2PtCl_6$  and treated with NaBH<sub>4</sub>.



**Supplementary information. Fig. 2.** DSC profile  $(N_2$ , second run) of chemically synthesized polypyrrole with FeCl<sub>3</sub> as oxidant.



**Supplementary information. Fig. 3.** FTIR spectrum of chemically synthesized polypyrrole with FeCl<sub>3</sub> as oxidant.