**Electronic Supplementary Information**

# Rare earth metal oxide ($RE_2O_3$; RE= Nd, Gd, and Yb) incorporated polyindole composites: Gravimetric and volumetric capacitive performance for supercapacitor applications

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## FESEM micrographs

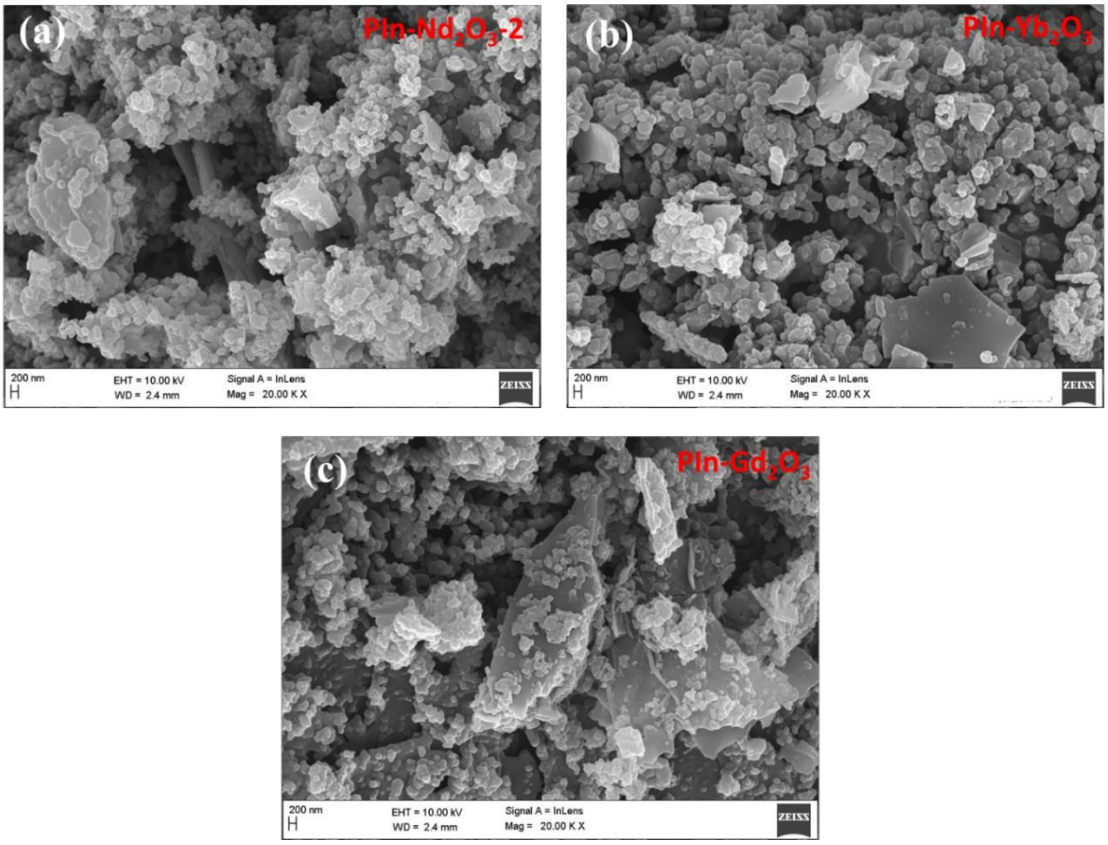


**Fig. S1** FESEM micrograph of (a) PIn/$Nd_2O_3$-2 composite, (b) PIn/$Yb_2O_3$ composite, and (c) PIn/$Gd_2O_3$ composite.

**Table S1** Comparative study of the capacitive performance of the other related electrode materials**.**

| Sl. No. | Electrode material | Gravimetric capacitance ($F\ g^{-1}$) | Condition | Reference |
|---|---|---|---|---|
| 1 | RGO/$Yb_2O_3$ | 222 | 1 $A\ g^{-1}$ | [S1] |
| 2 | POAP/$Gd_2O_3$ | 300 | - | [S2] |
| 3 | POAP/$Sm_2O_3$ | 238 | - | [S3] |
| 4 | POAP/$Ho_2O_3$ | 333 | - | [S4] |
| 5 | PPy/$Eu_2O_3$ | 289 | 1 $A\ g^{-1}$ | [S5] |
| 6 | POAP/$Eu_2O_3$ | 375 | - | [S6] |
| 7 | PPy/MGO | 202 | 1 $A\ g^{-1}$ | [S7] |
| 8 | CNT/PIn-$Co_3O_4$ | 442.5 | 1 $A\ g^{-1}$ | [S8] |
| 9 | $Sm_2O_3$-CuO | 383.4 | 0.5 $A\ g^{-1}$ | [S9] |
| 10 | PIn/$Nd_2O_3$-2 | 401 | 1 $A\ g^{-1}$ | This work |

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