Supporting Information to:

The PANI-DBSA content and dispersing solvent as influence parameters in sensing performances of TiO_2/PANI-DBSA hybrid nanocomposites to ammonia

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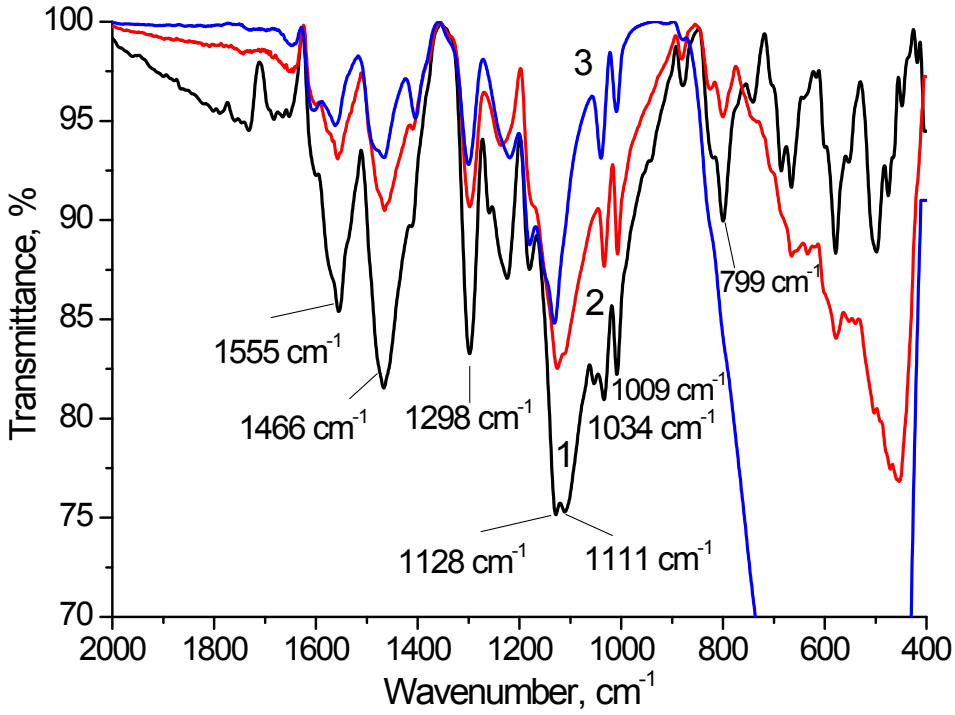


Figure S1. FTIR spectra of PANI-DBSA (1) and TiO_2/PANI-DBSA nanocomposites NC36 (2) and NC9 (3).

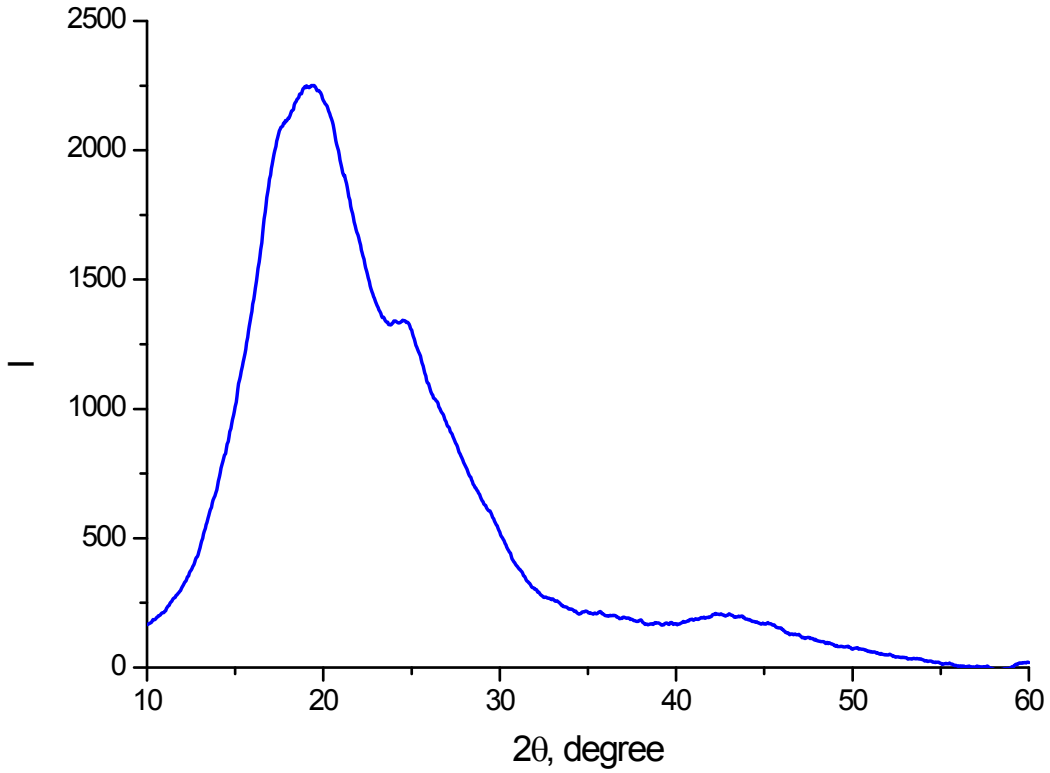


Figure S2. XRD pattern of the pure PANI-DBSA. Simple 5-point smoothing and background subtraction with a linear function were applied here.

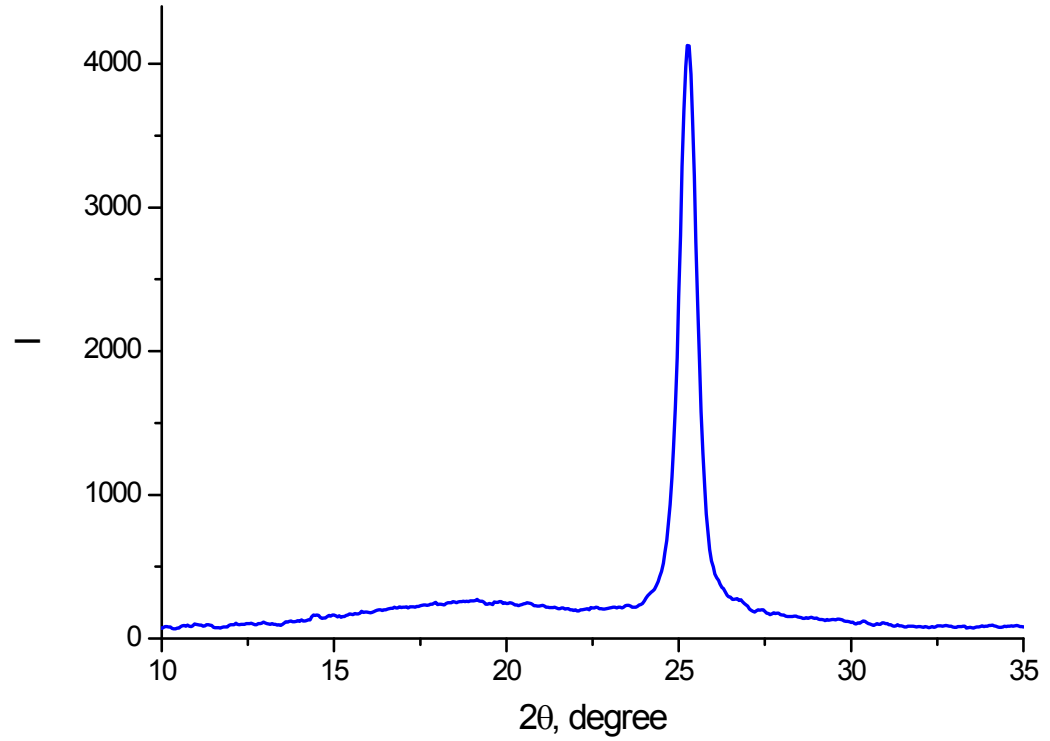


Figure S3. XRD pattern of NC36 nanocomposite. Simple 5-point smoothing and background subtraction with a linear function were applied here.

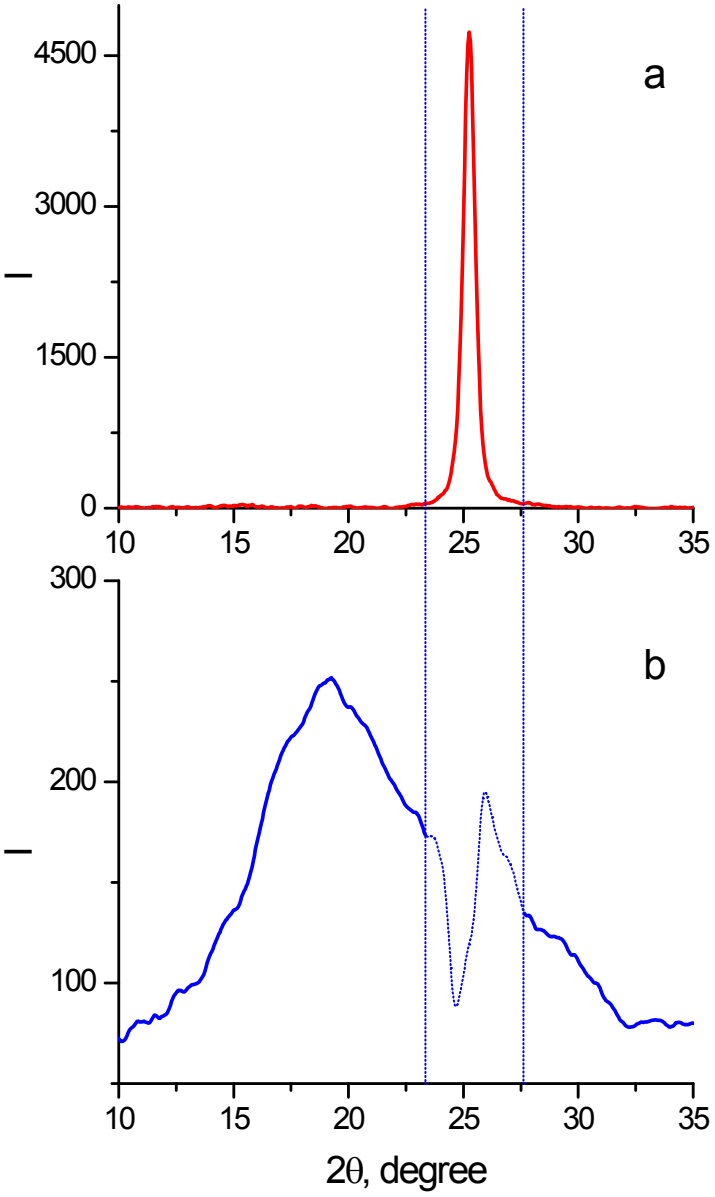
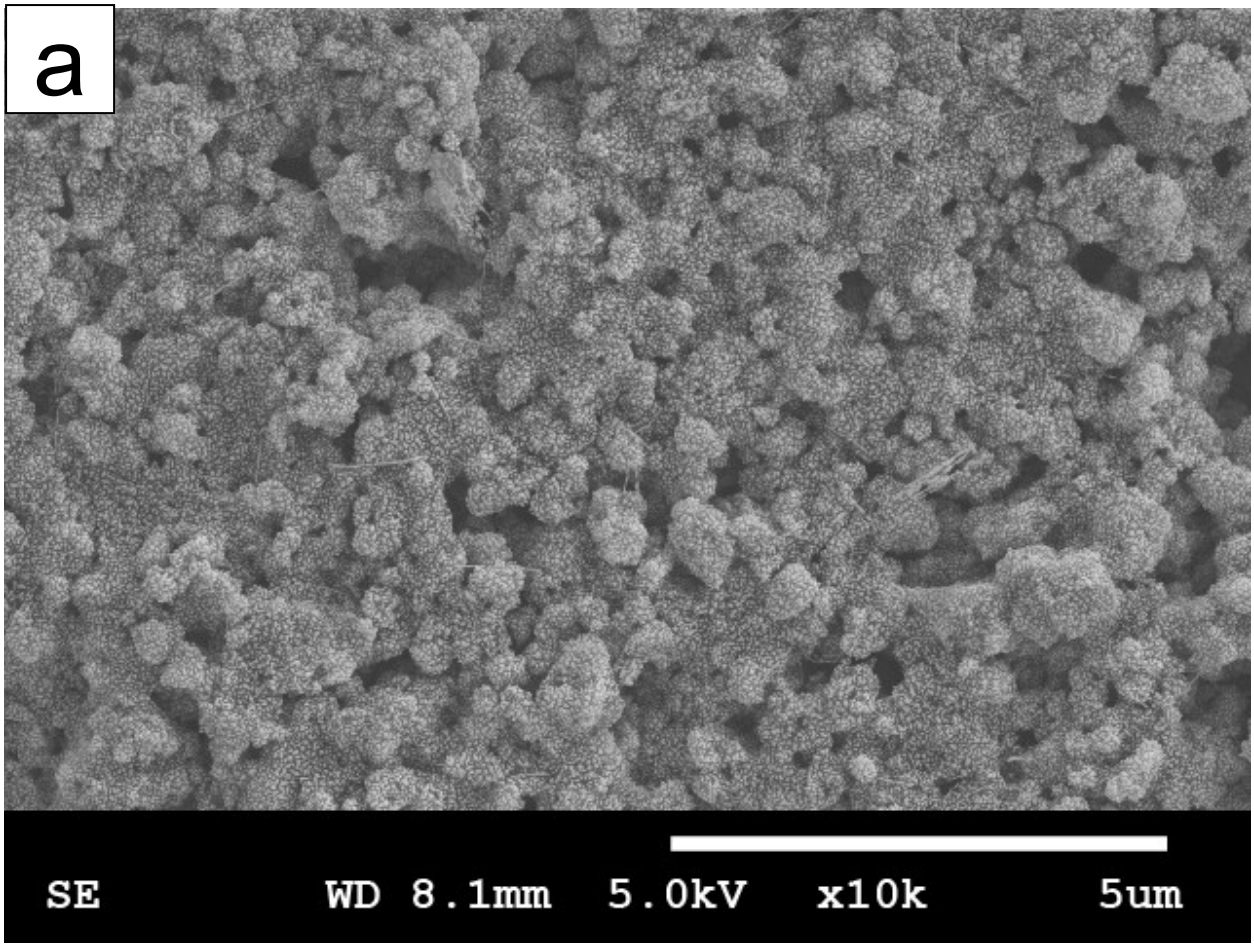
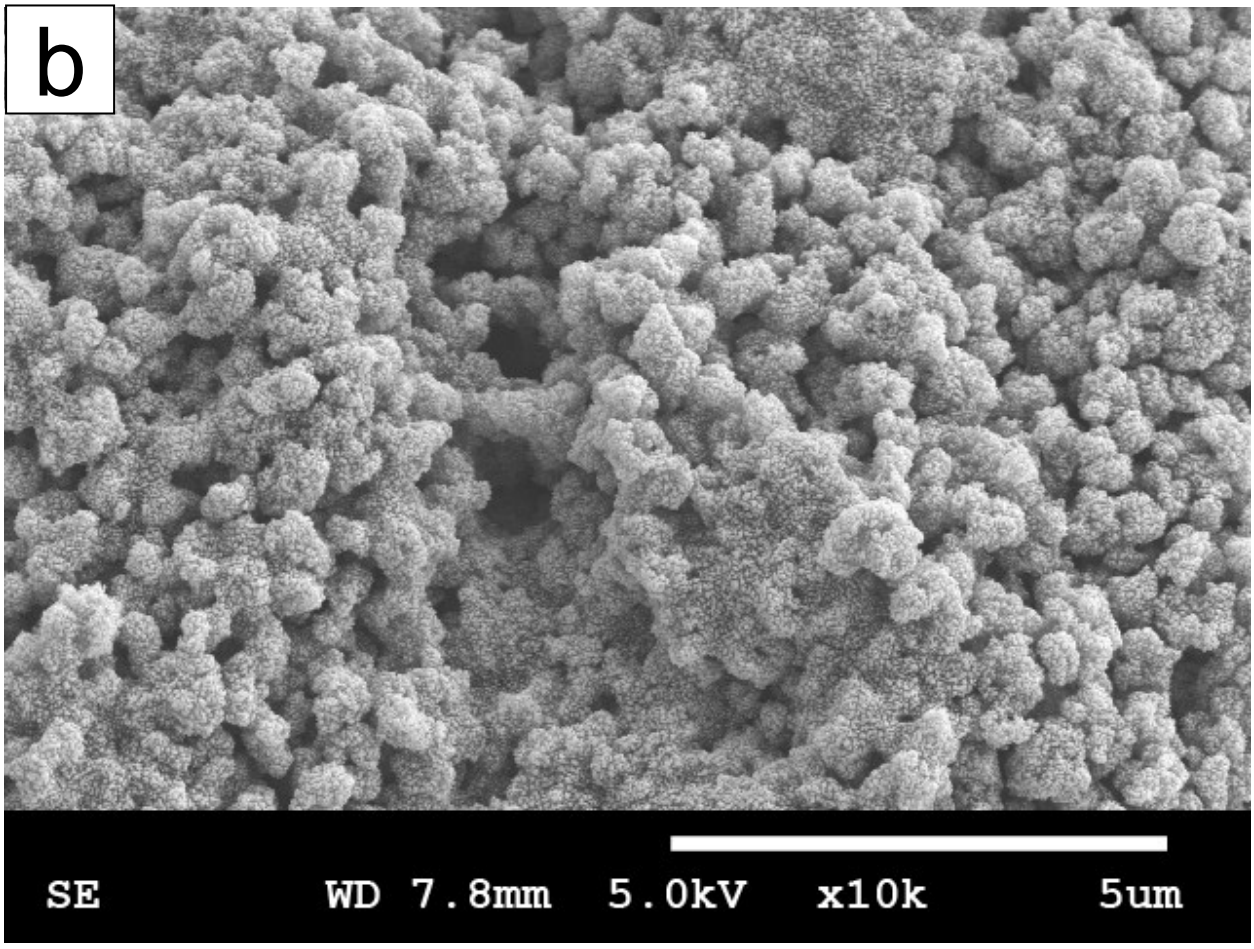
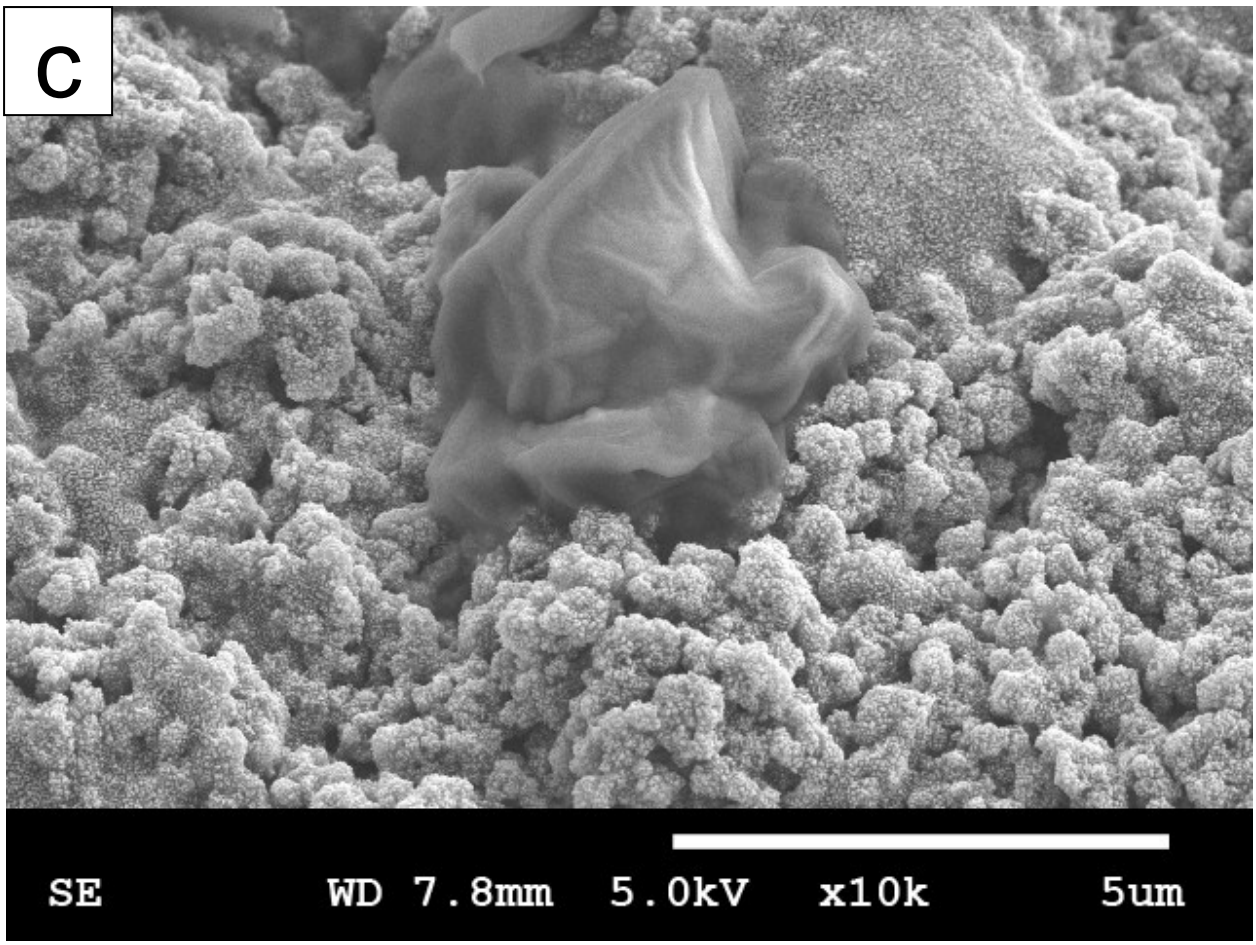


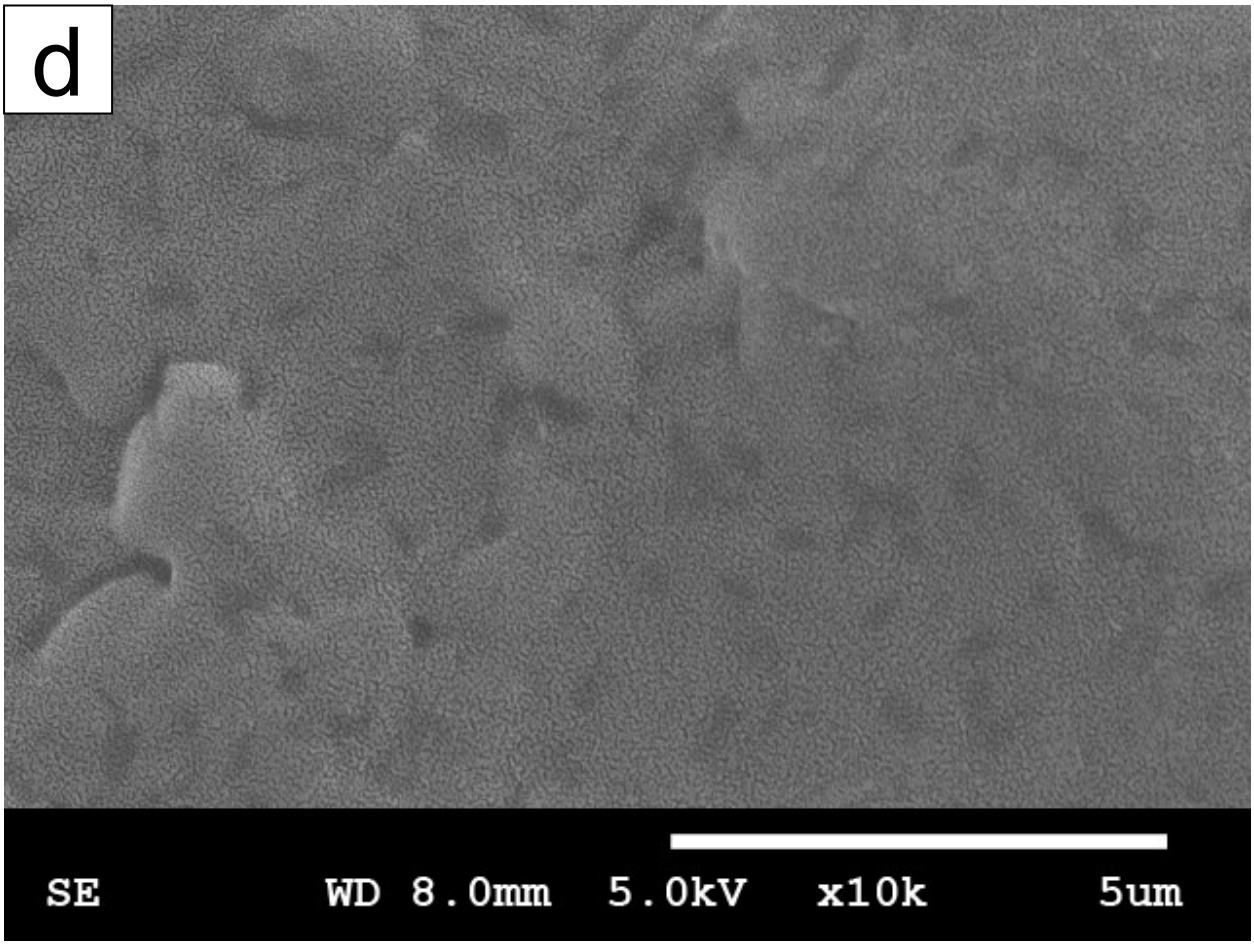
Figure S4. (a) XRD pattern of TiO_2. Simple 5-point smoothing and background subtraction with a linear function were applied here. (b) The difference XRD pattern of the PANI phase of NC36 nanocomposite obtained by subtraction of the TiO_2 pattern from the NC36 one. Simple 25-point smoothing protocol was applied here. Before the subtraction procedure the TiO_2 peak height at 25.3º in XRD pattern of the NC36 nanocomposite was normalized to its height in XRD pattern of TiO_2.

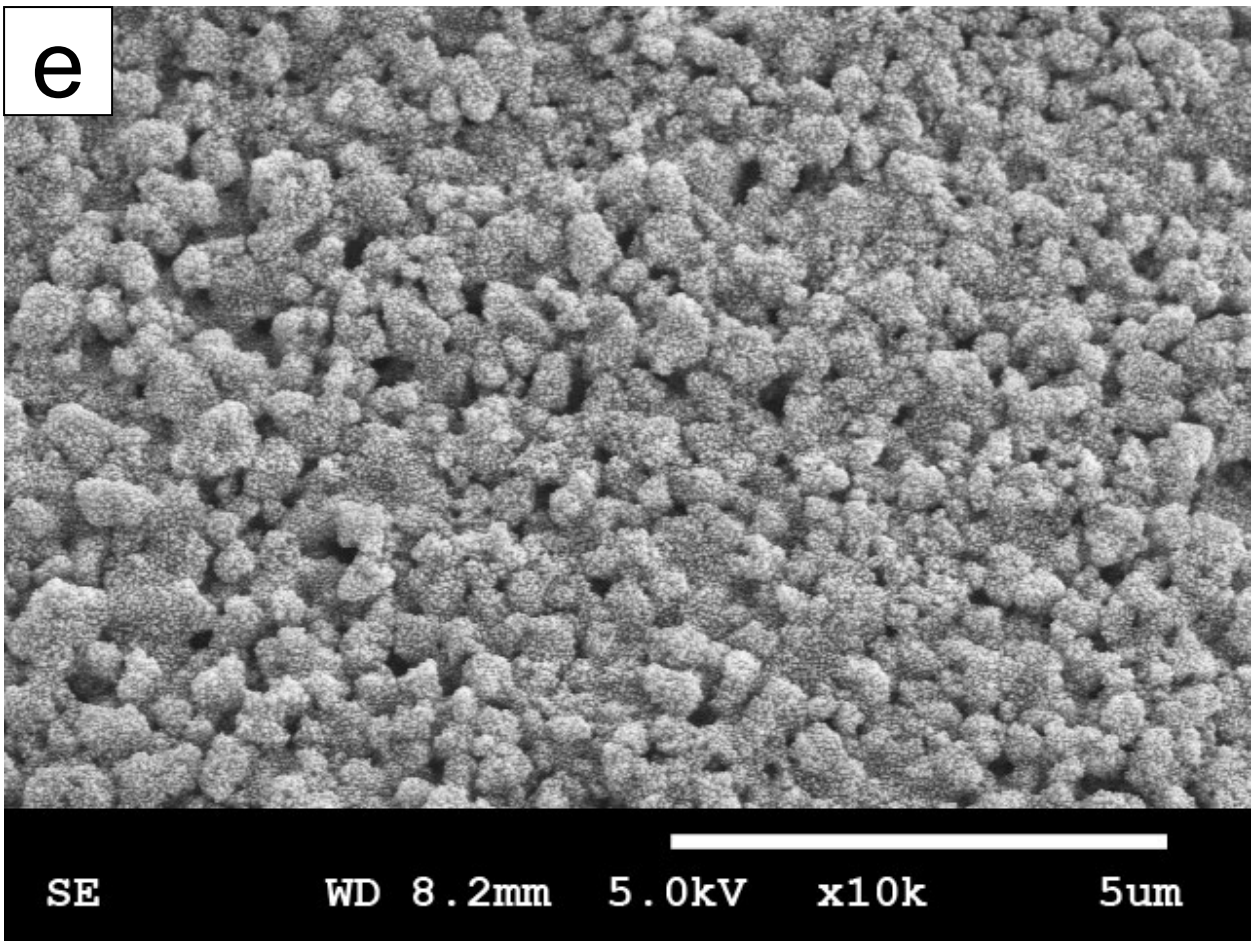
Although, the difference pattern displays pronounced shoulders at 15.1°, 17.4°, and 29.1° that can be assigned to PANI-DBSA features (see the paper text), its part in the range from 23,4º to 27,6º has large errors because of its low intensity, and, therefore, should not be taken into account.

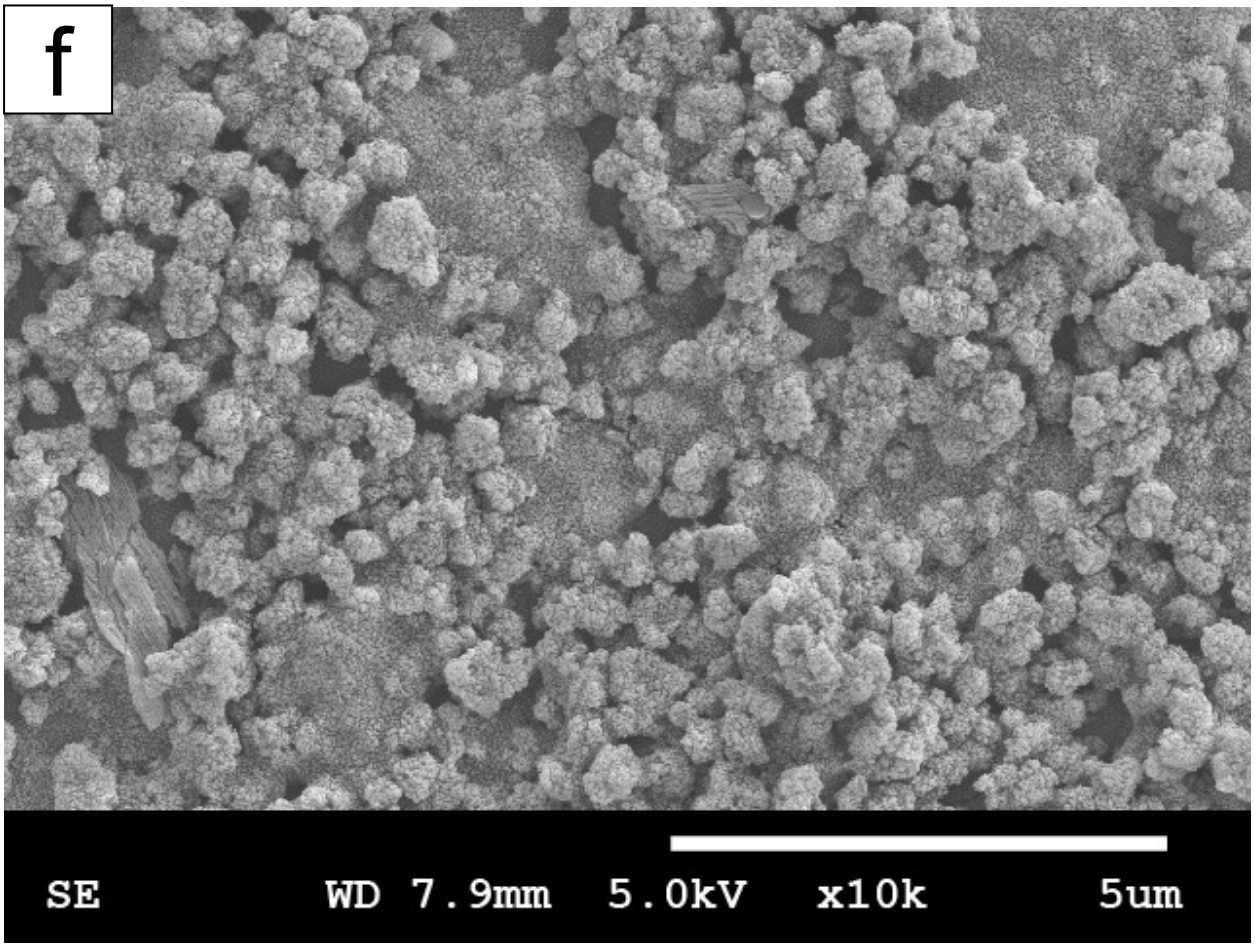

a
SE
WD 8.1mm 5.0kV x10k
5um


b
SE
WD 7.8mm 5.0kV x10k
5um


c
SE WD 7.8mm 5.0kV x10k 5um


d
SE WD 8.0mm 5.0kV x10k 5um


e
SE
WD 8.2mm
5.0kV
x10k
5um


f
SE
WD 7.9mm
5.0kV
x10k
5um

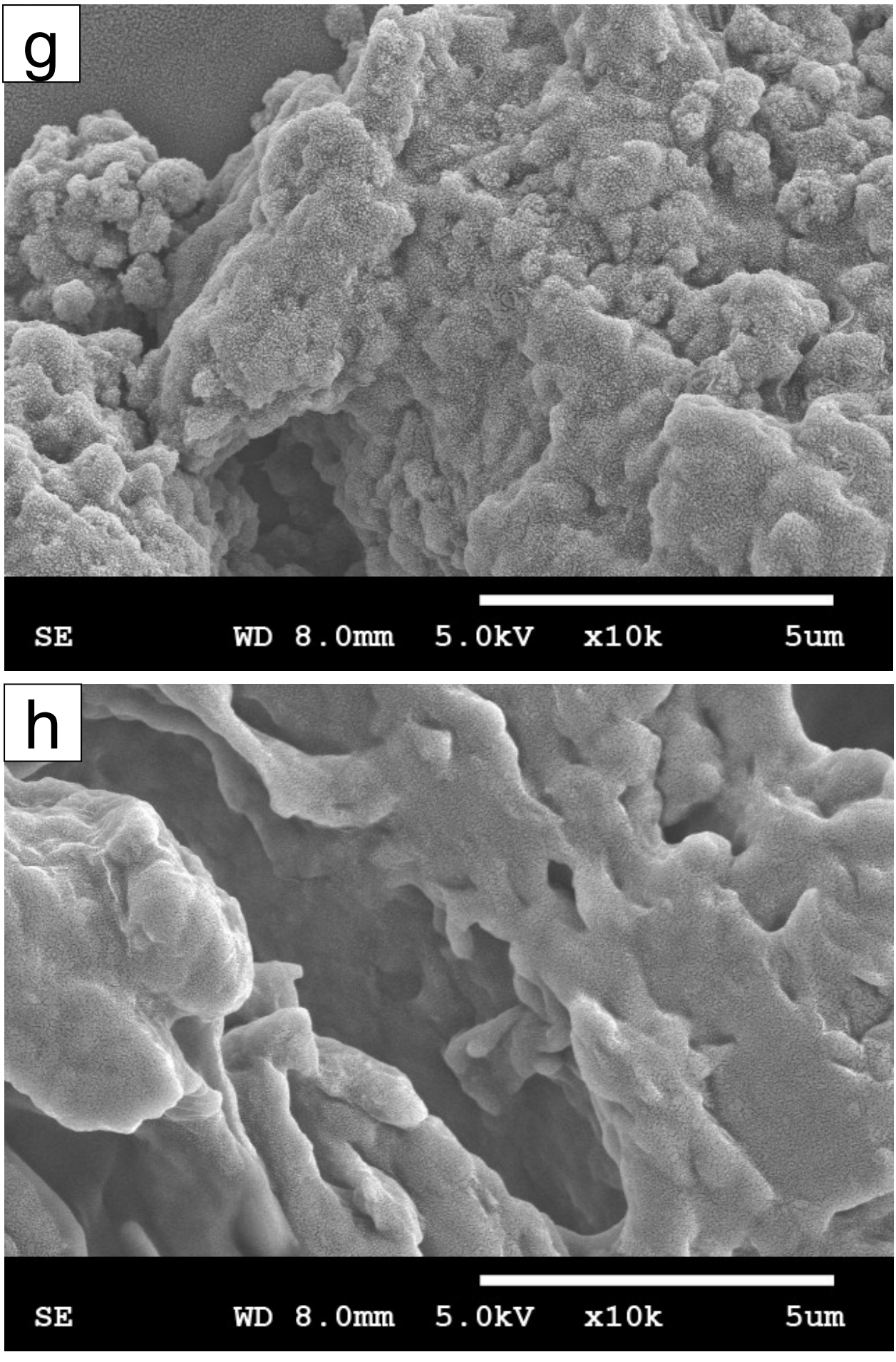


Figure S5. Enlarged SEM images