

FIG. 1

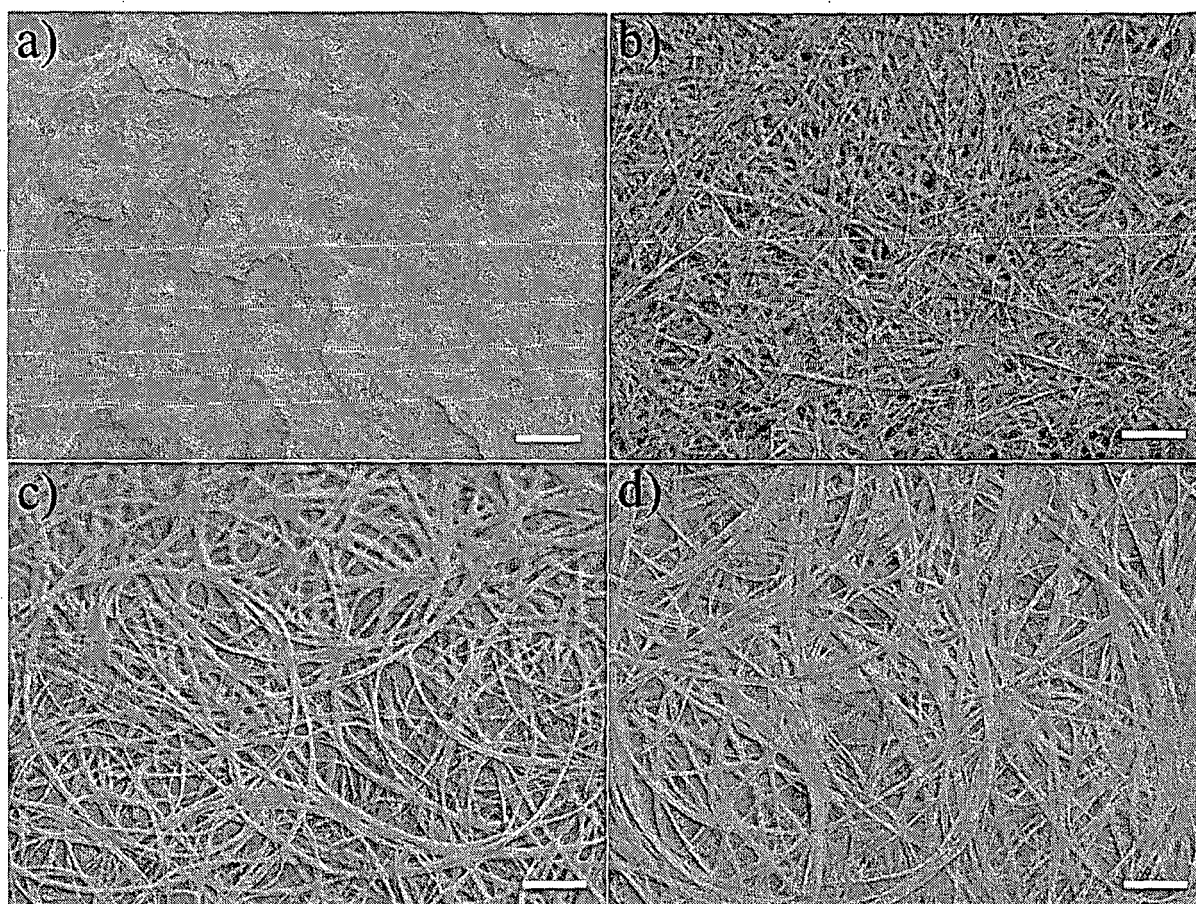
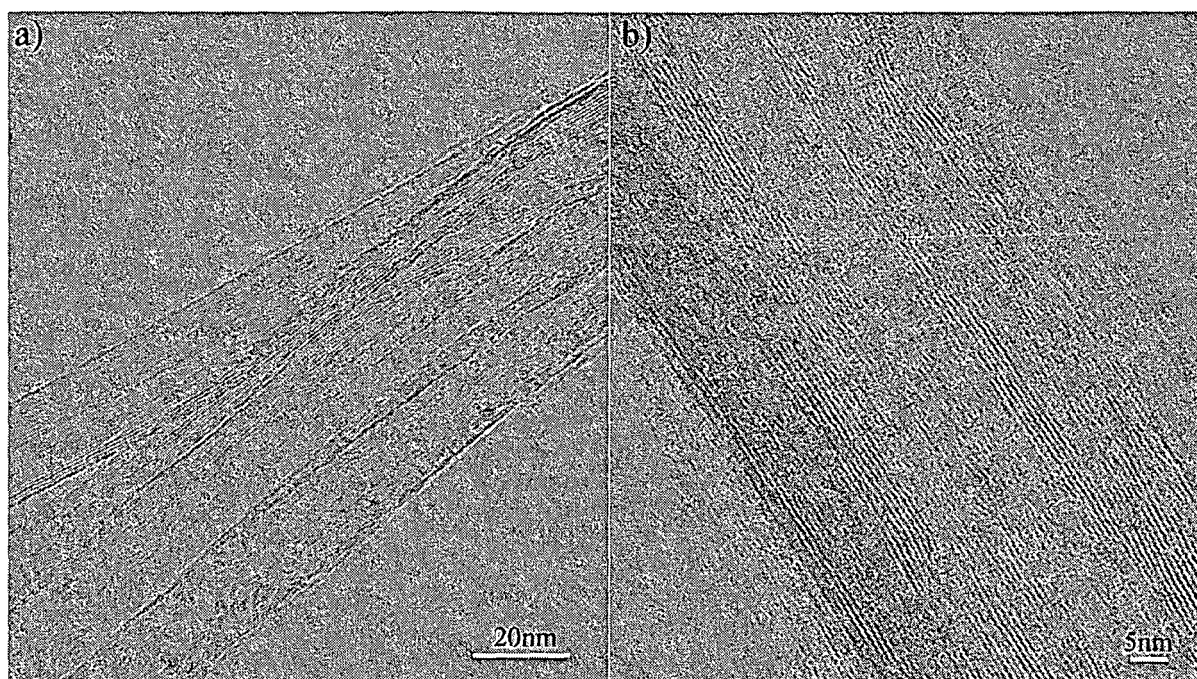


FIG. 2



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FIG. 3

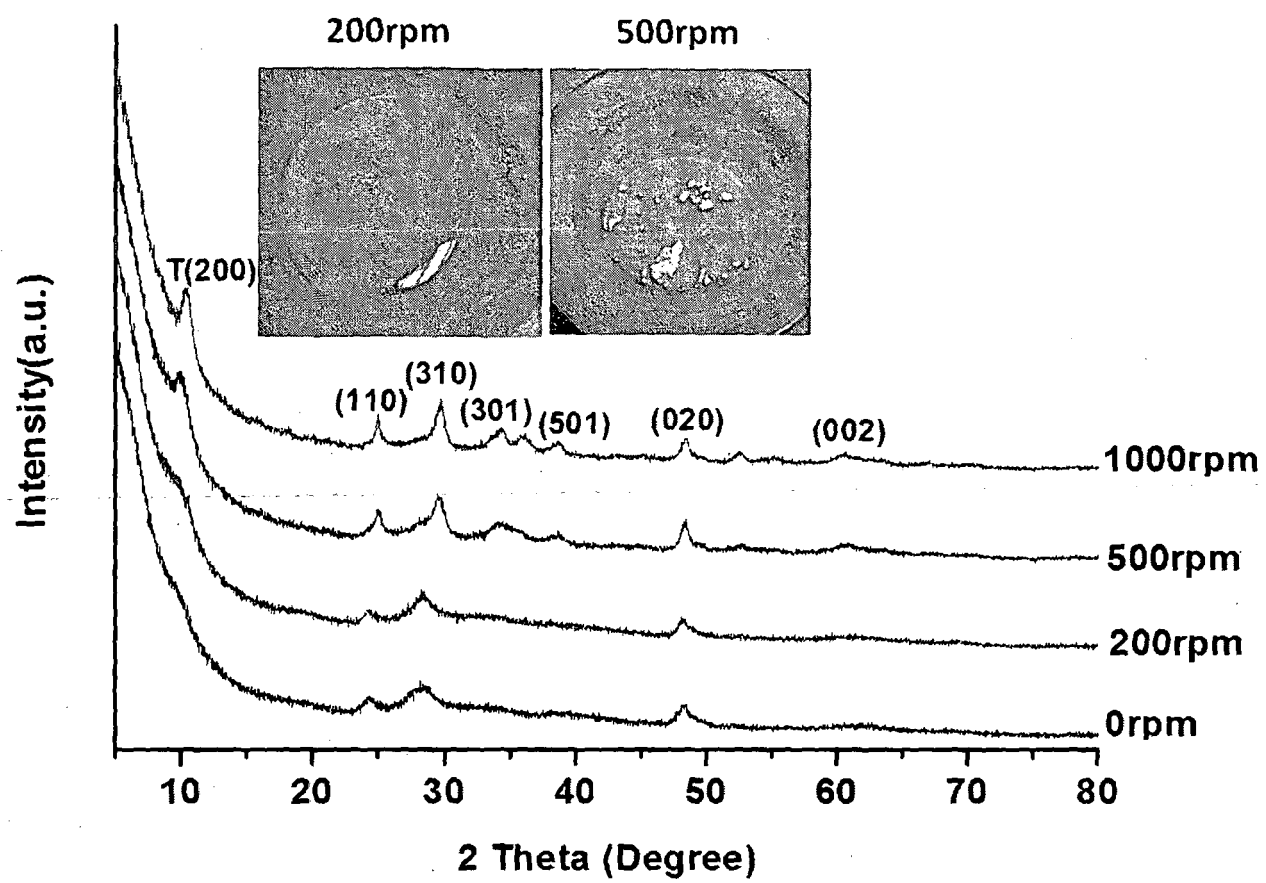


FIG. 4

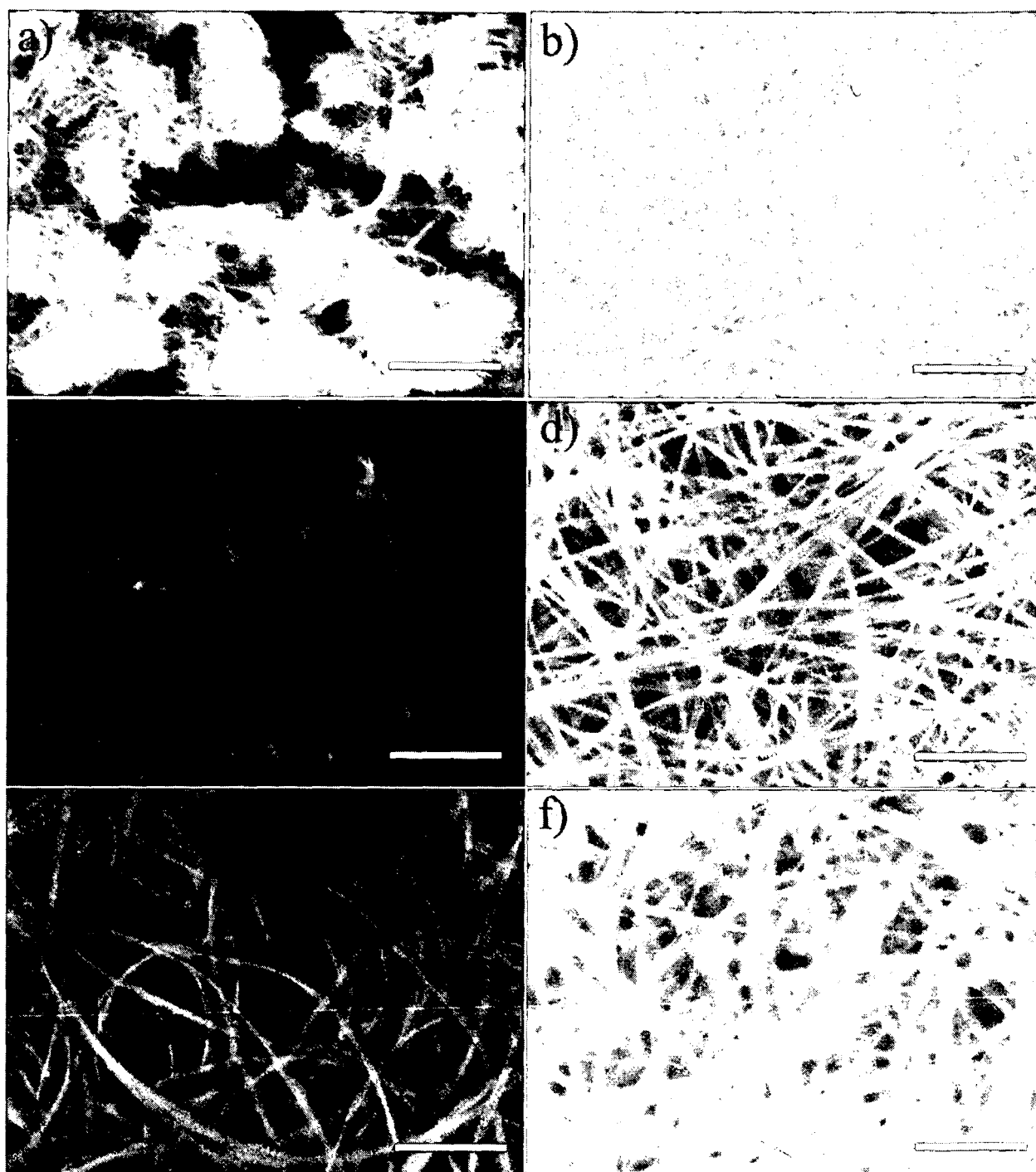
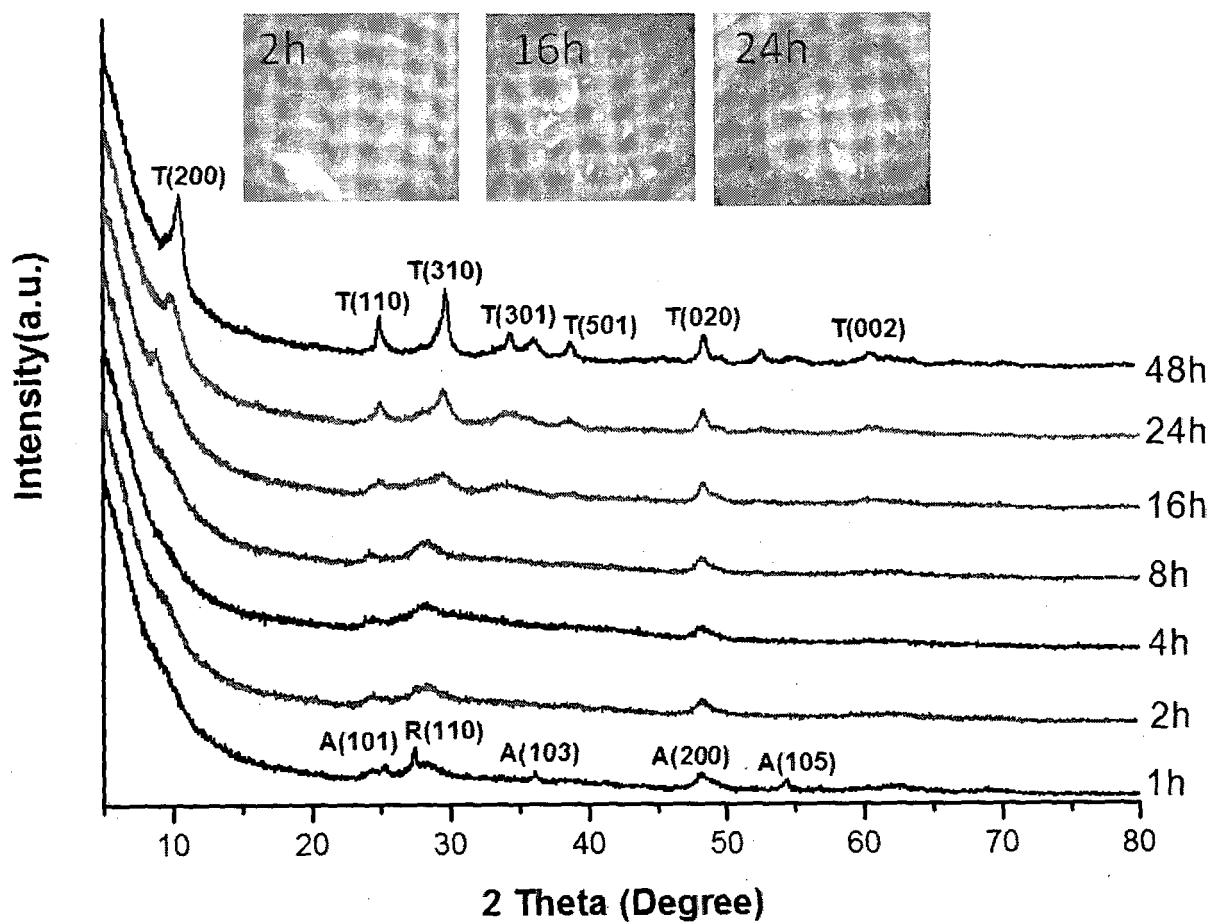
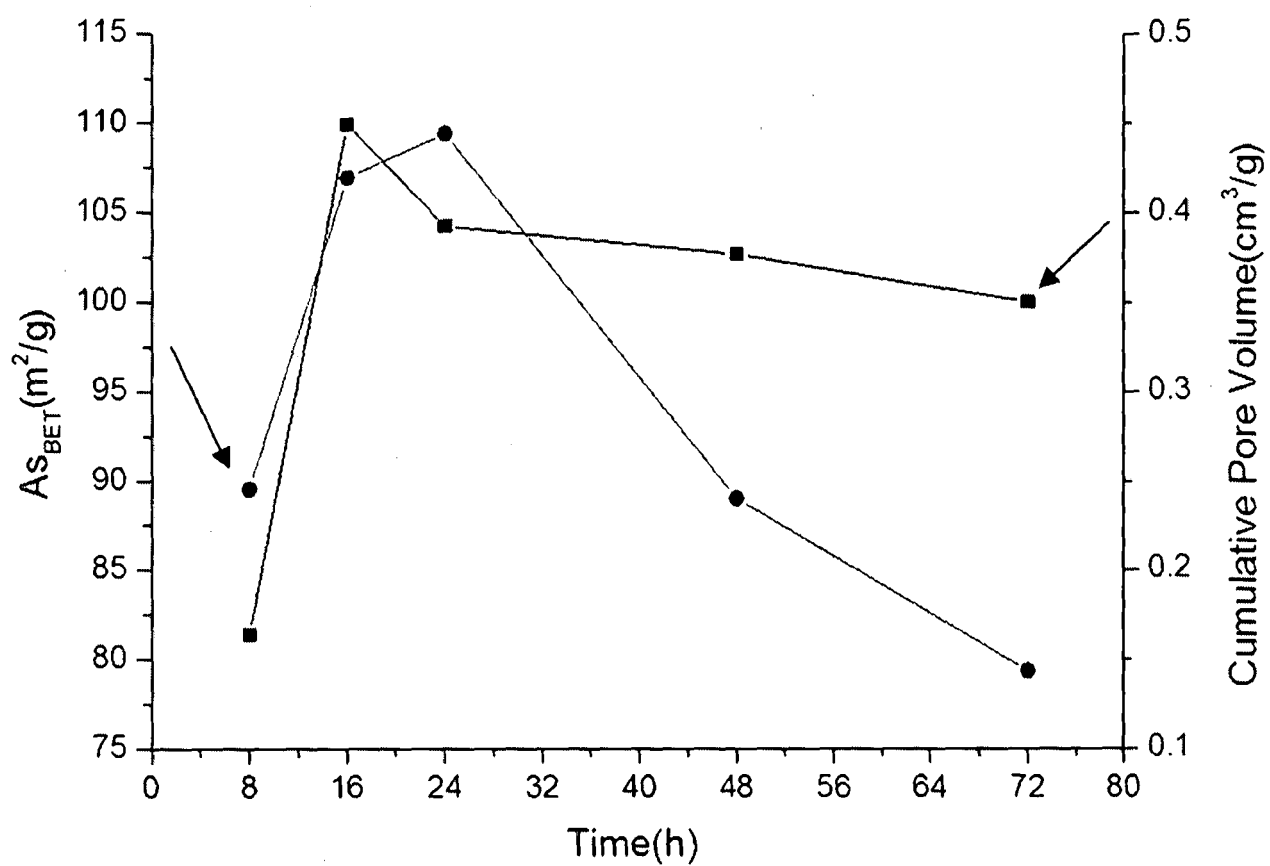


FIG. 5



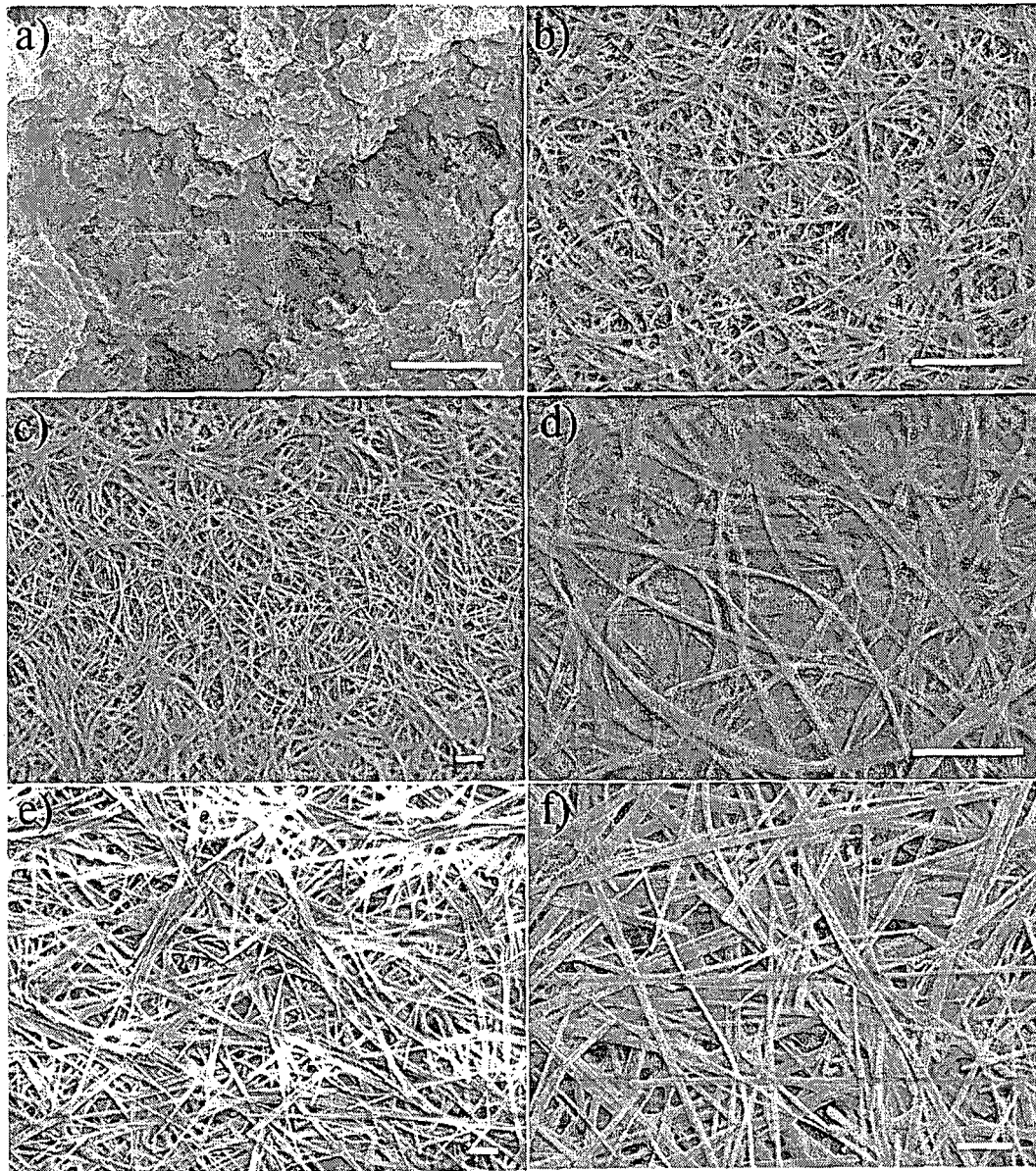
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FIG. 6



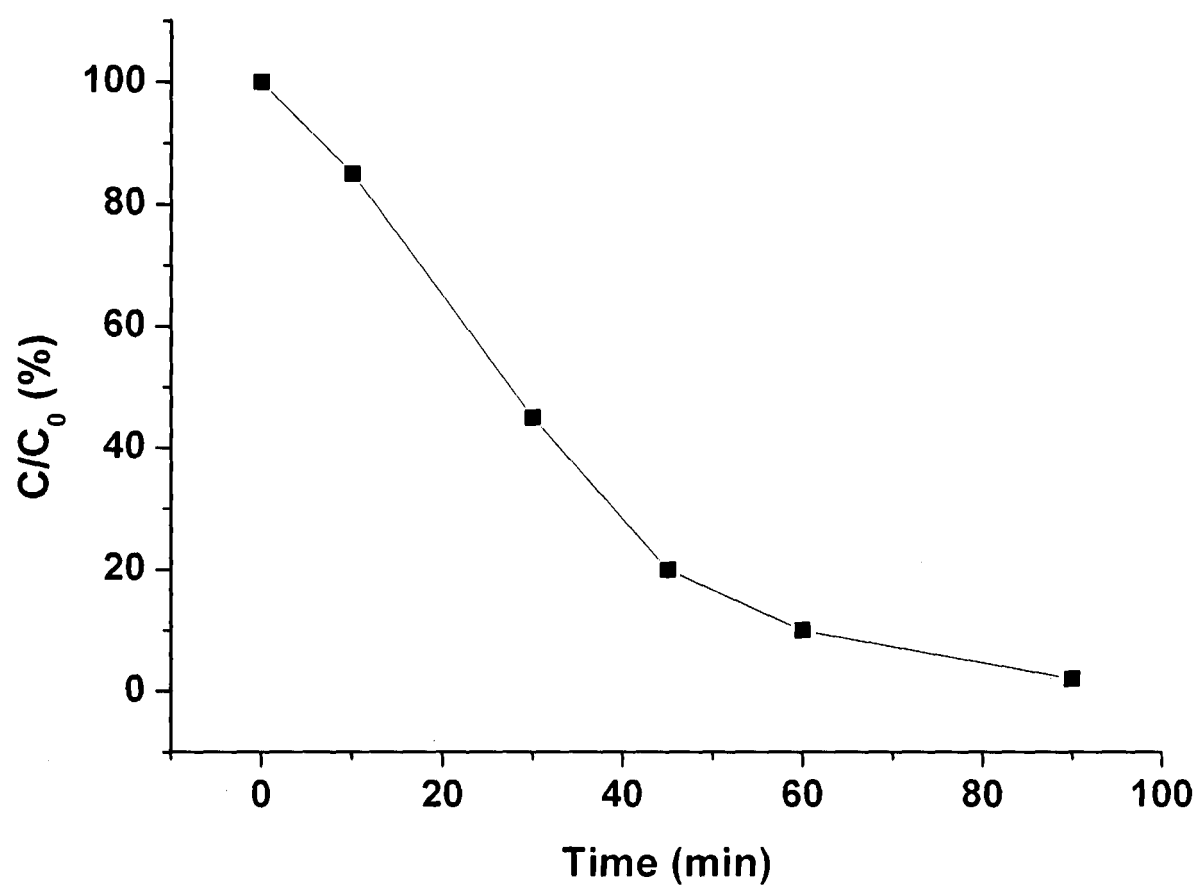
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FIG. 7



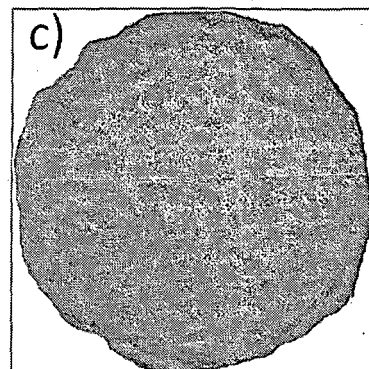
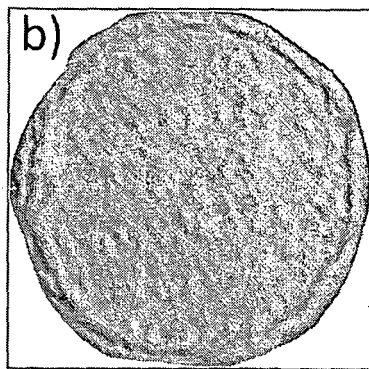
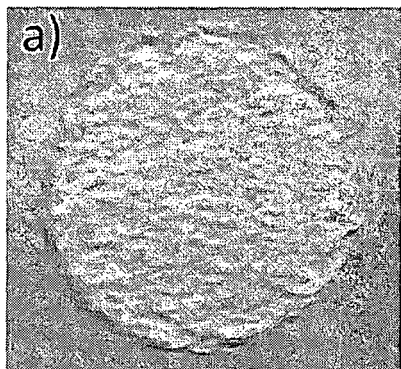
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FIG. 8



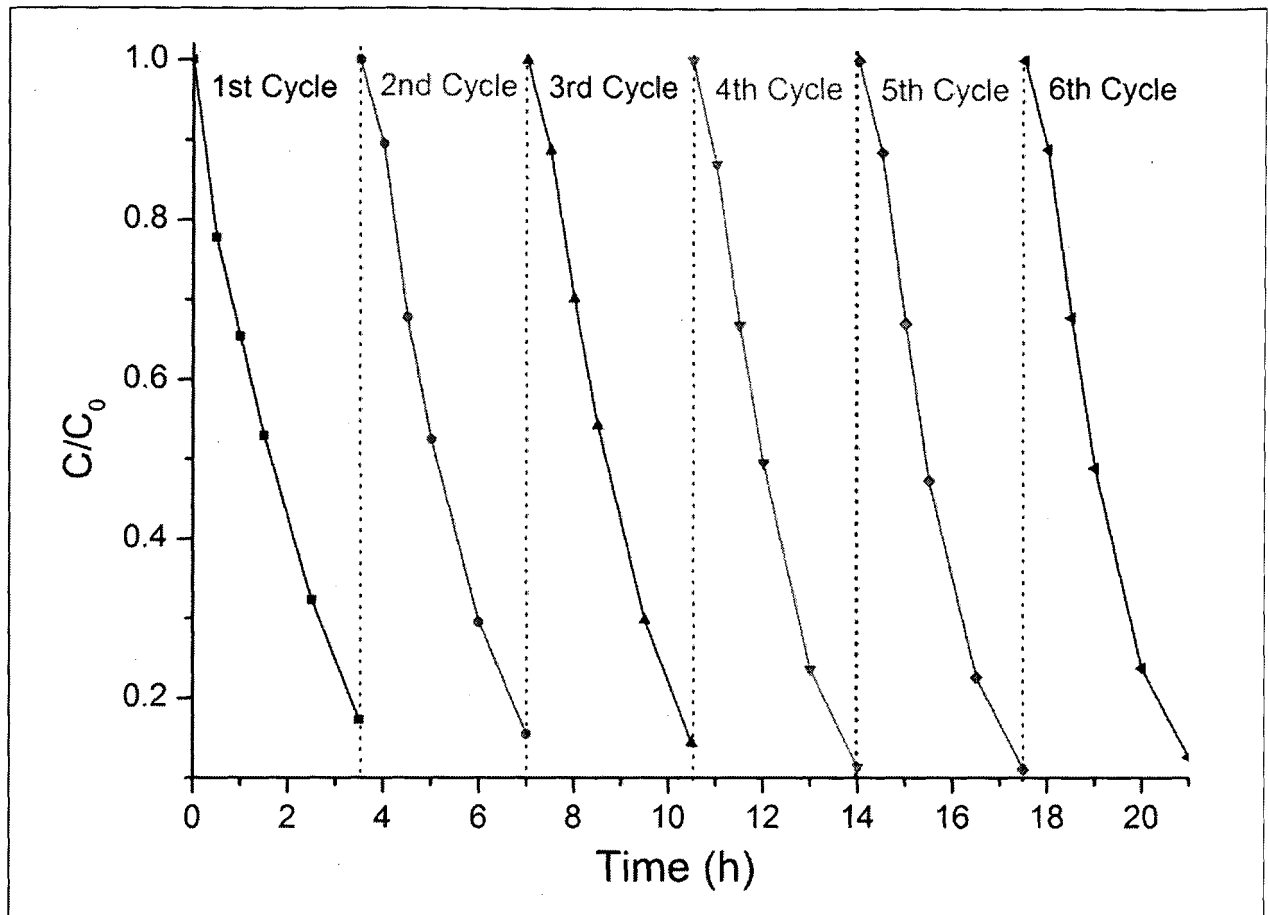
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FIG. 9



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FIG. 10



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FIG. 11

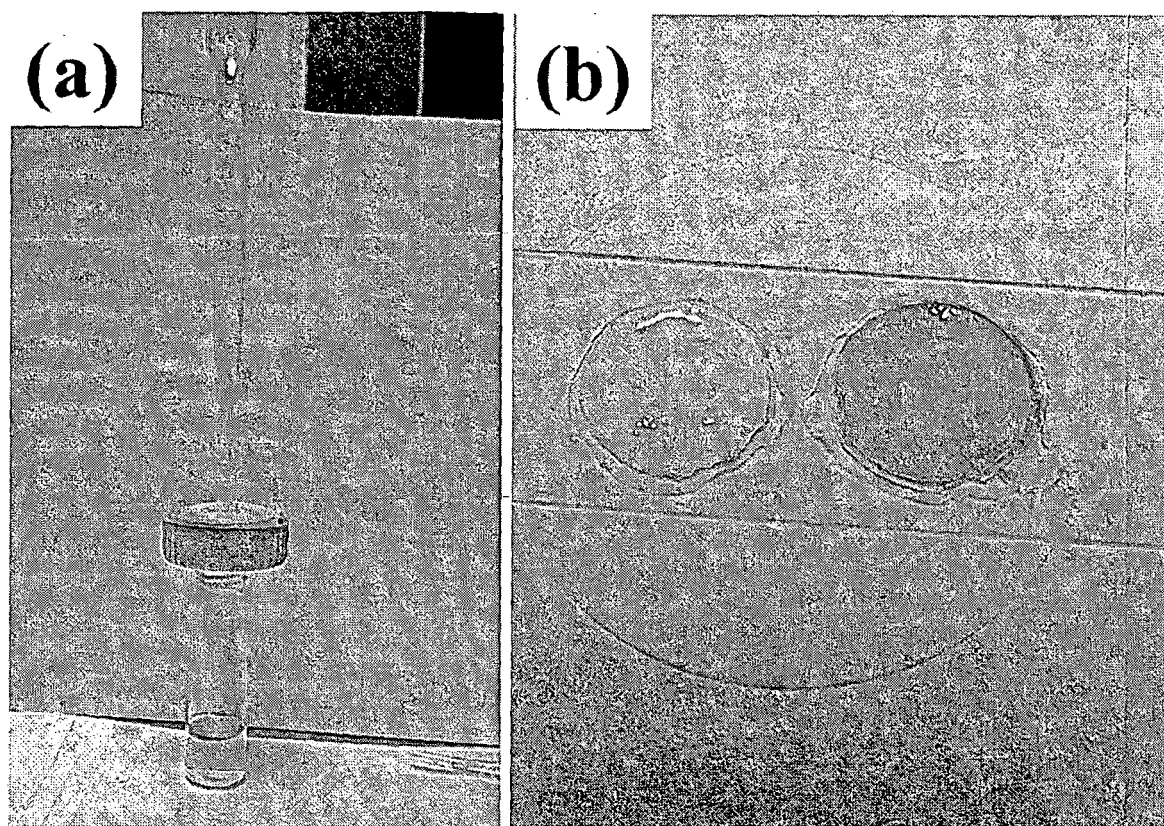
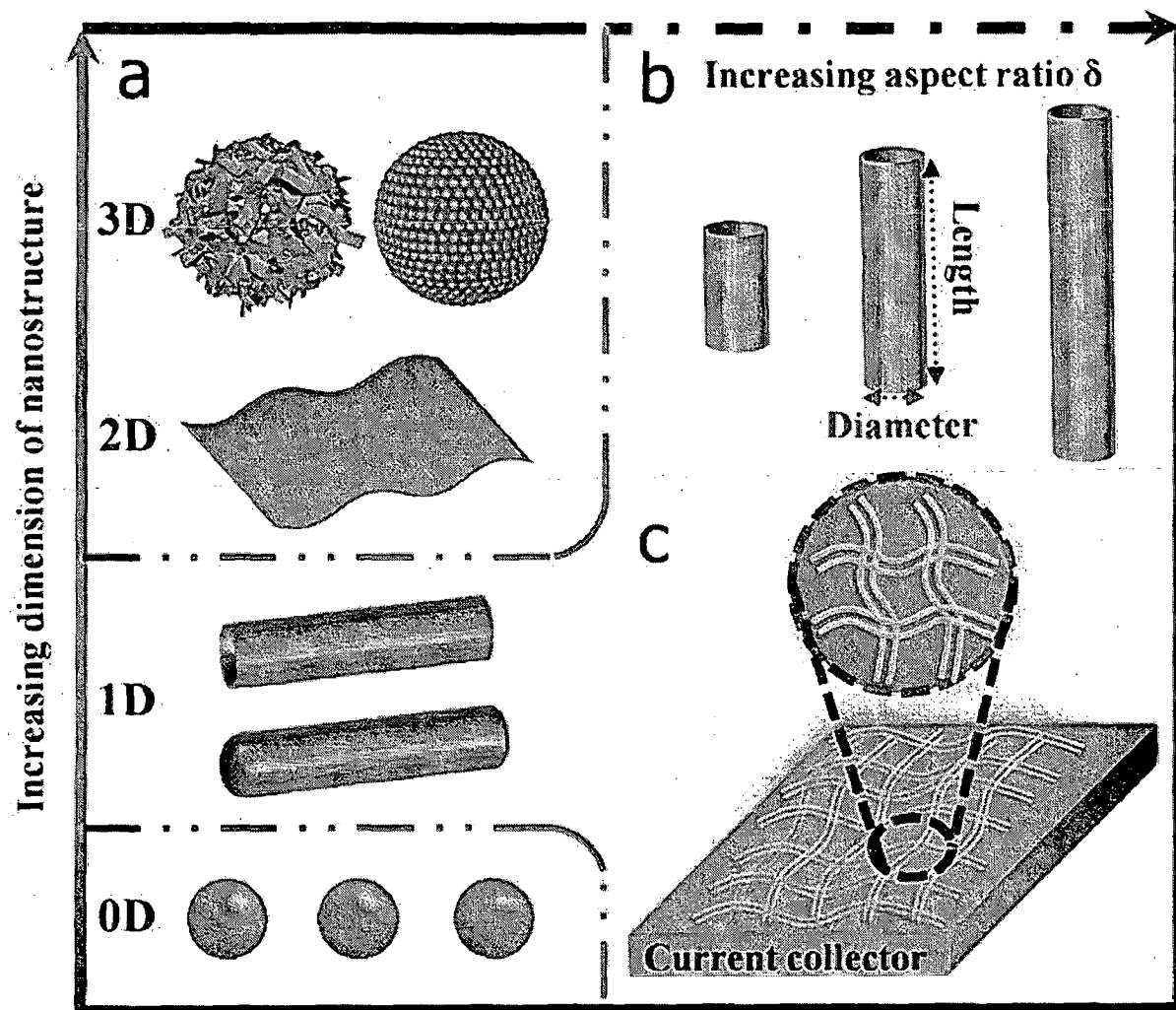


FIG. 12



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FIG. 13

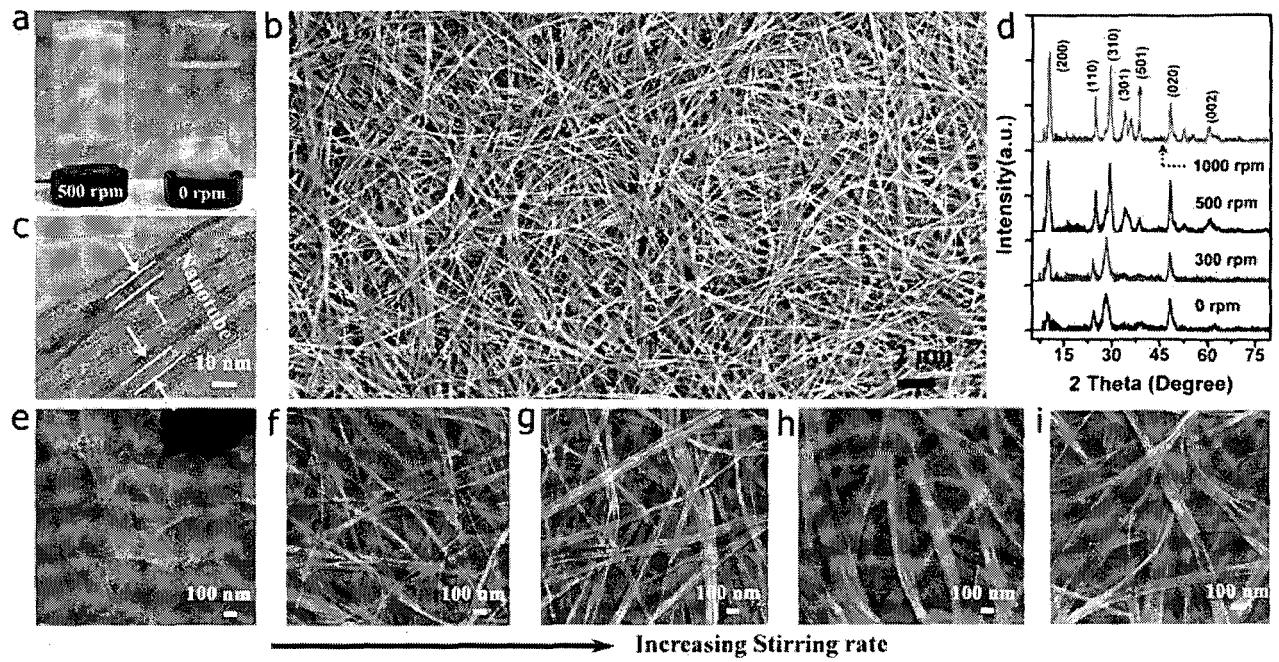
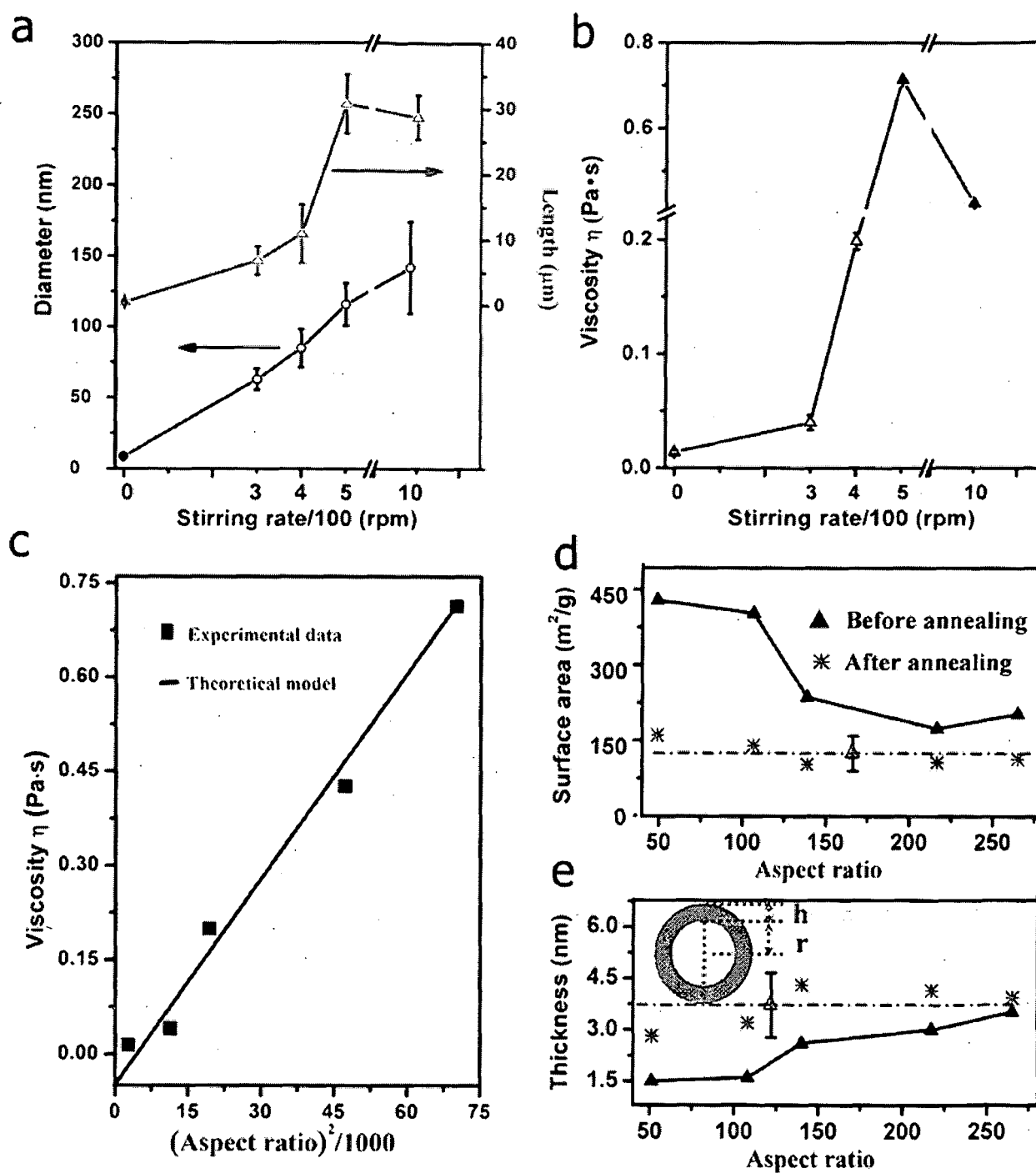
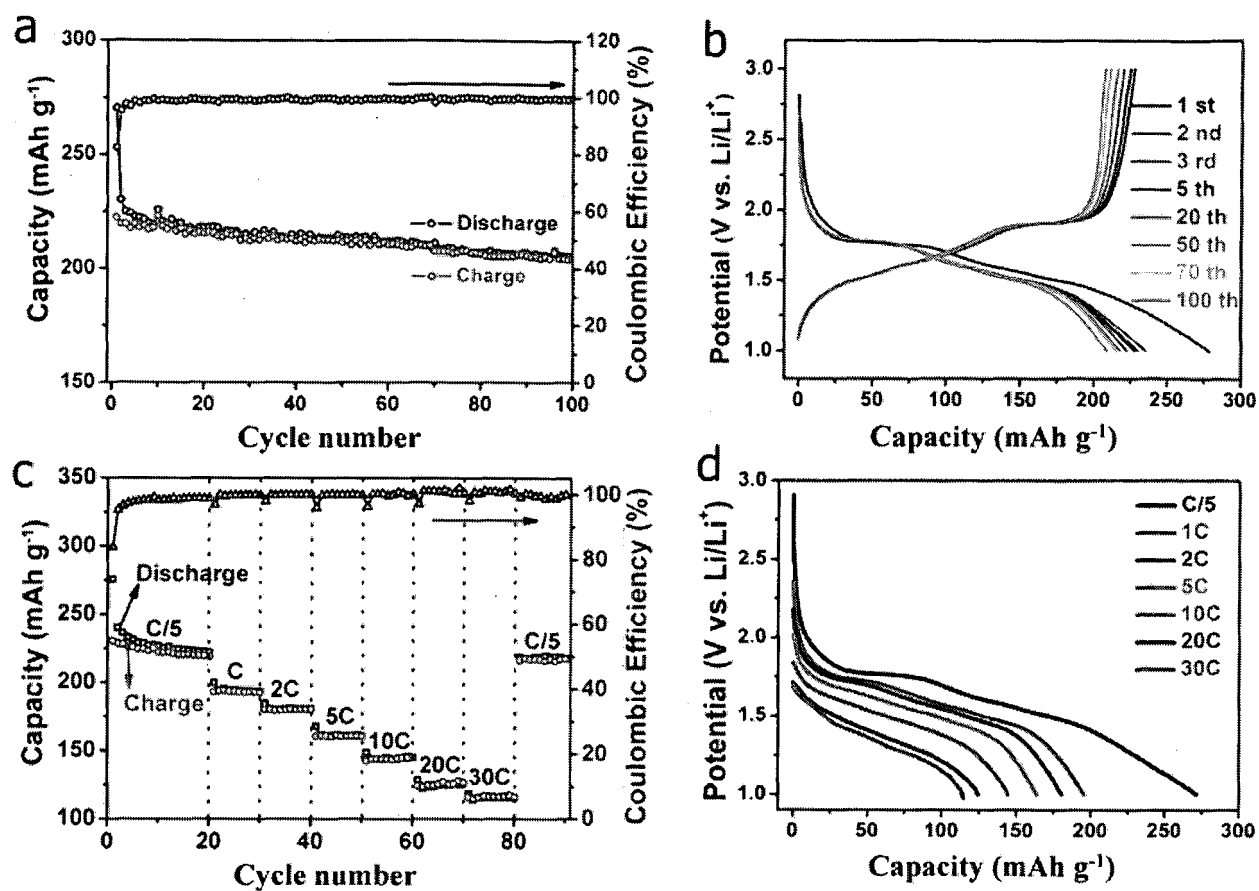


FIG. 14



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FIG. 15



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FIG. 16

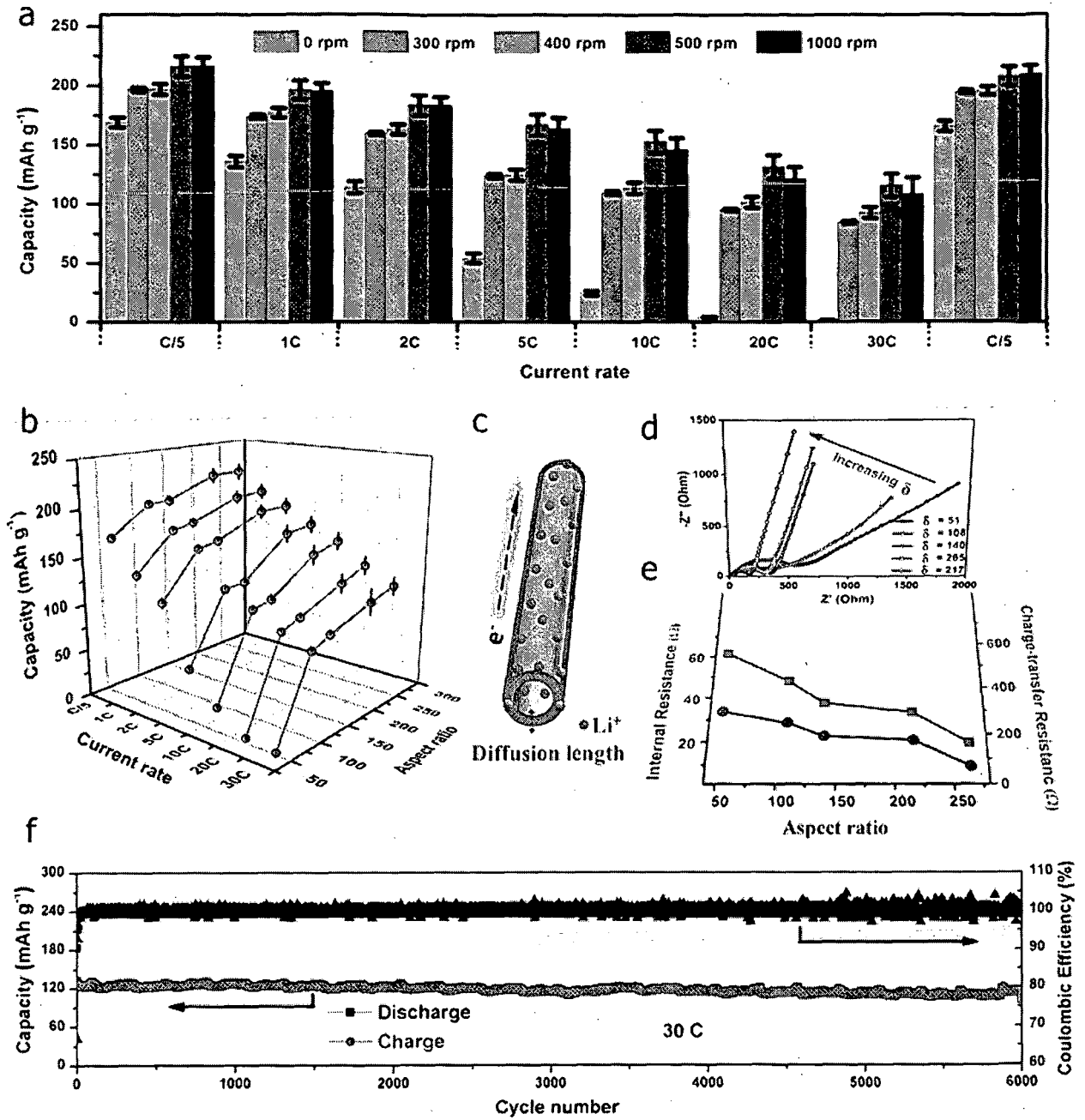


FIG. 17

Table 1. Comparison of the electrochemical performance of representative anatase TiO_2 electrode materials at high rates.

Electrode materials	Specific capacity (mAh/g)	Discharge rate (C)	Electrode composition*	Ref.
Pure TiO_2 electrode with additive				
Mesoporous anatase TiO_2	$\sim 123^{\text{b}}$	9 C [†]	7:1.5:1.5	
Ultrathin TiO_2 nanosheets	95	20 C	7:2:1	
TiO_2 nanofibers	77 ^Δ	20 C	7:2:1	
TiO_2 nanosheets	88 ^Δ	30 C	7:2:1	
Black TiO_2 nanoparticles	$\sim 153^{\text{Δ}}$	30 C	8.5:0.75:0.75	
TiO_2-composite electrode with additive				
Carbon nanotube- TiO_2	110	20 C	NA [*]	
Mesoporous TiO_2 - RuO_2	125	20 C [†]	3:1:1	
TiO_2 nanoparticle-Graphene	96	30 C	NA	
TiO_2 nanodots-Graphene	100 ^Δ	30 C	8:1:1	
Additive-free TiO_2 electrode				
TiO_2 nanowire arrays	84	3 C	/	
TiO_2 nanofibers	60	5 C	/	
Vertical TiO_2 nanotubes	130	10 C	/	
Micropatterned TiO_2	~ 60	20 C	/	
High aspect ratio TiO_2 NTs	161	10 C	/	This work
	133	30 C	/	

*: Electrode composition is listed using the mass ratio of active material: conductive carbon: binder;

†: Discharging rate is unified as 1 C = 168 mAh g⁻¹;

Δ: Capacity is recalculated based on the total weight of the electrode, including the active material, conductive carbon, and binder;

*: NA means not available.

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FIG. 18

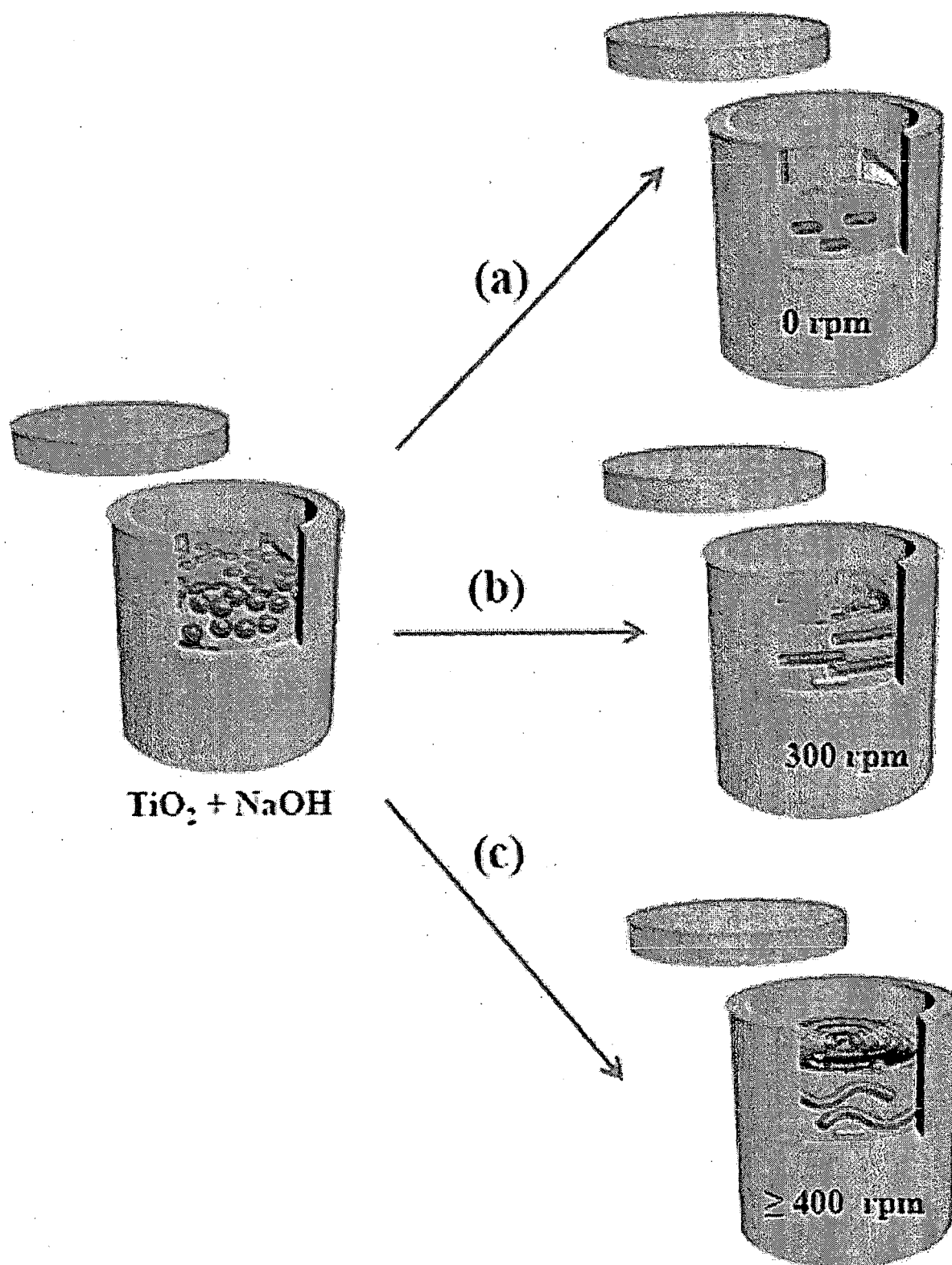
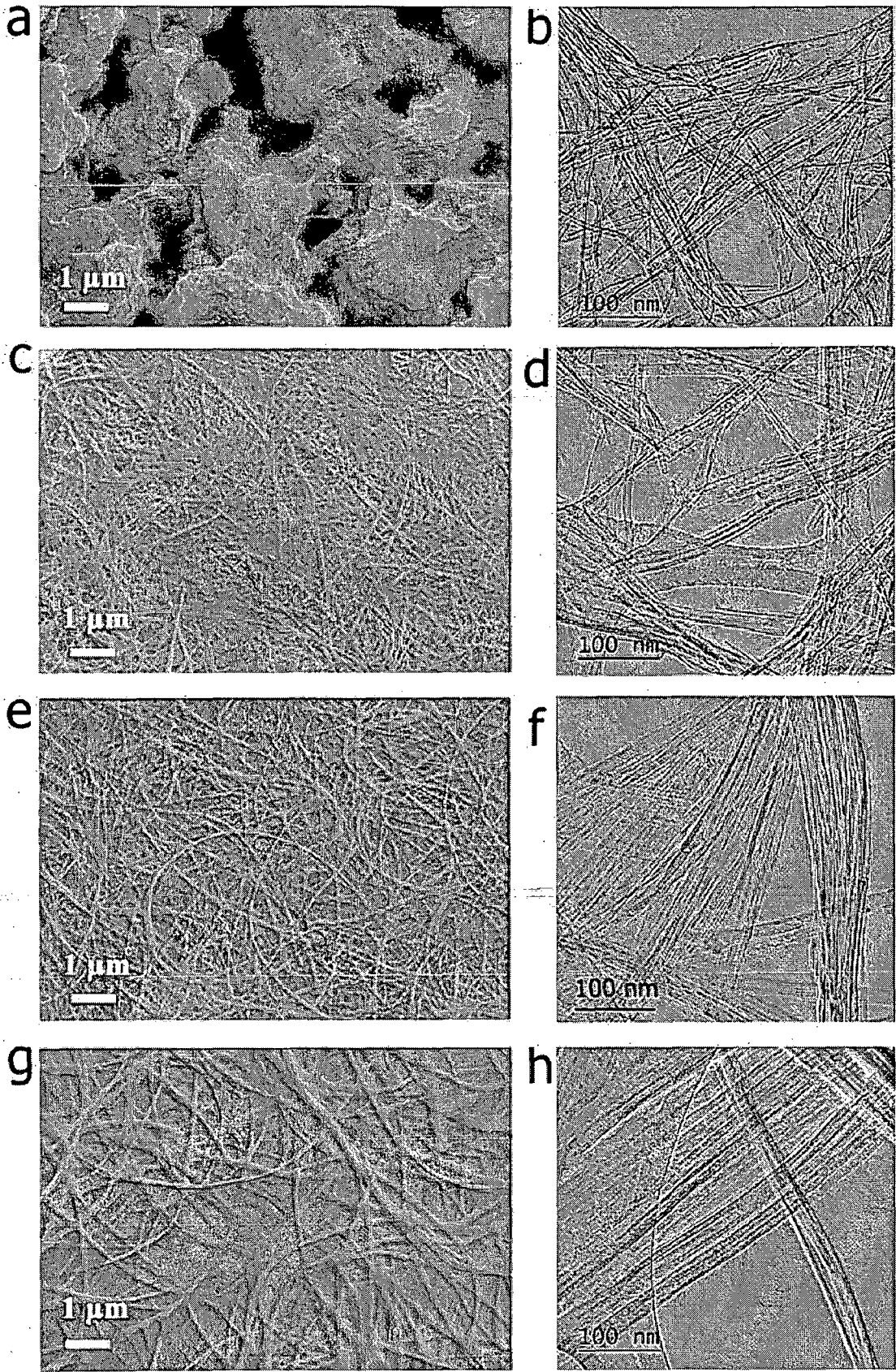
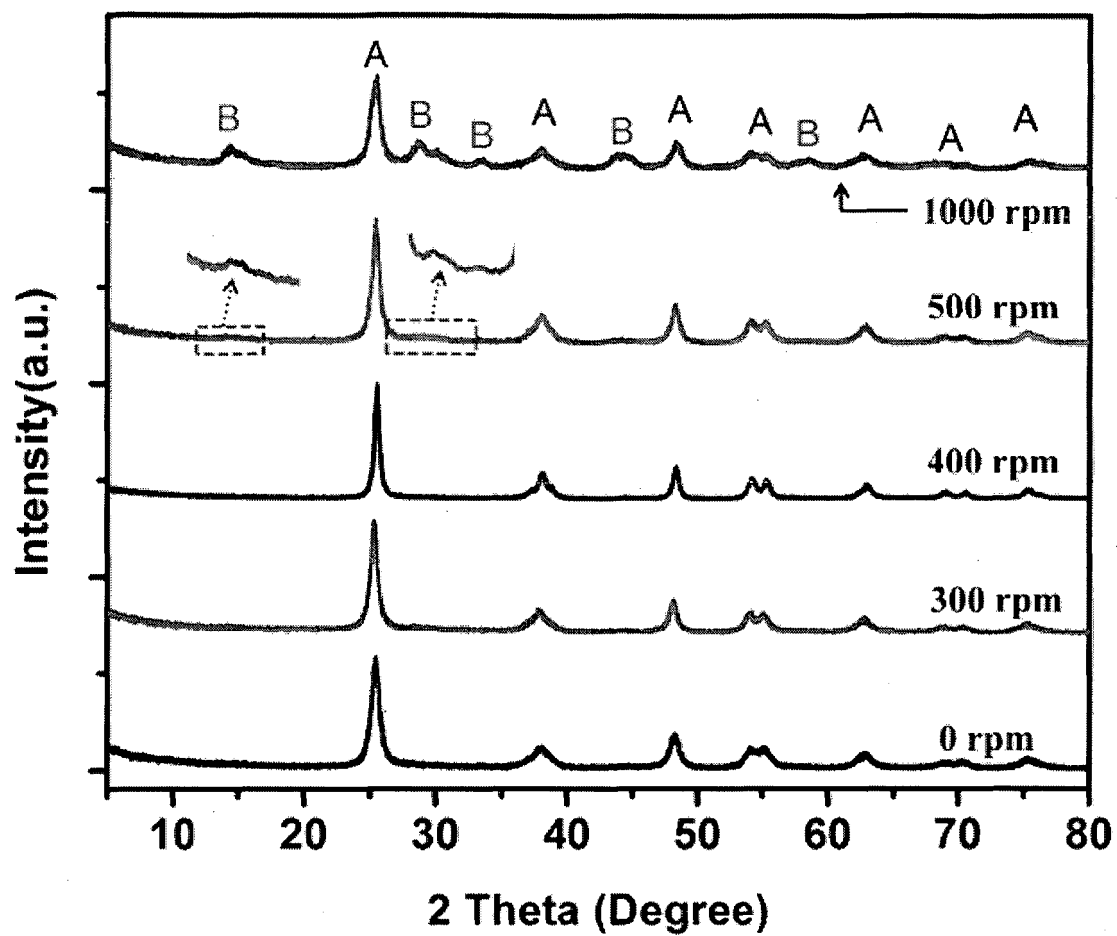


FIG. 19



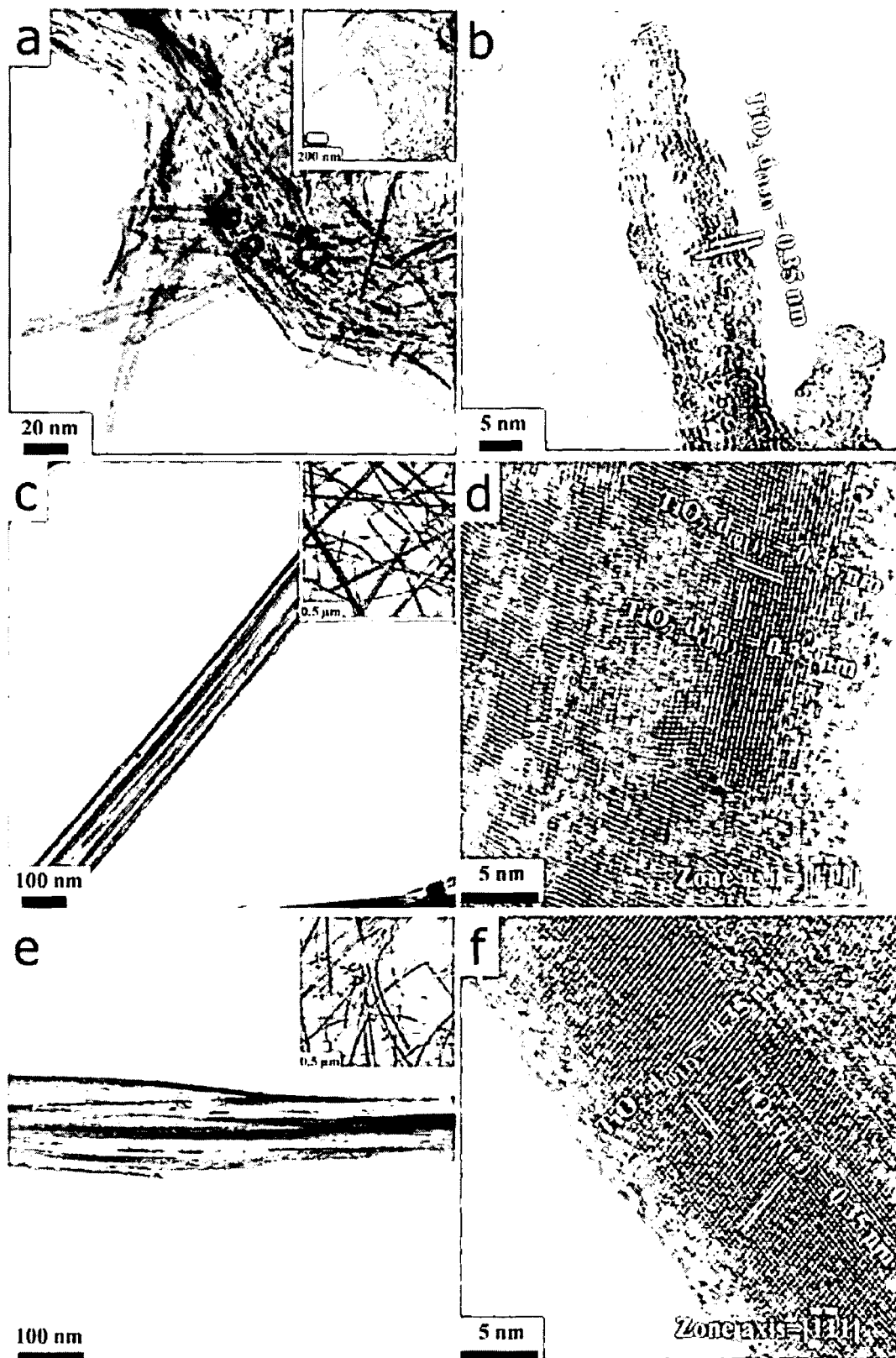
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FIG. 20



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FIG. 21



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FIG. 22

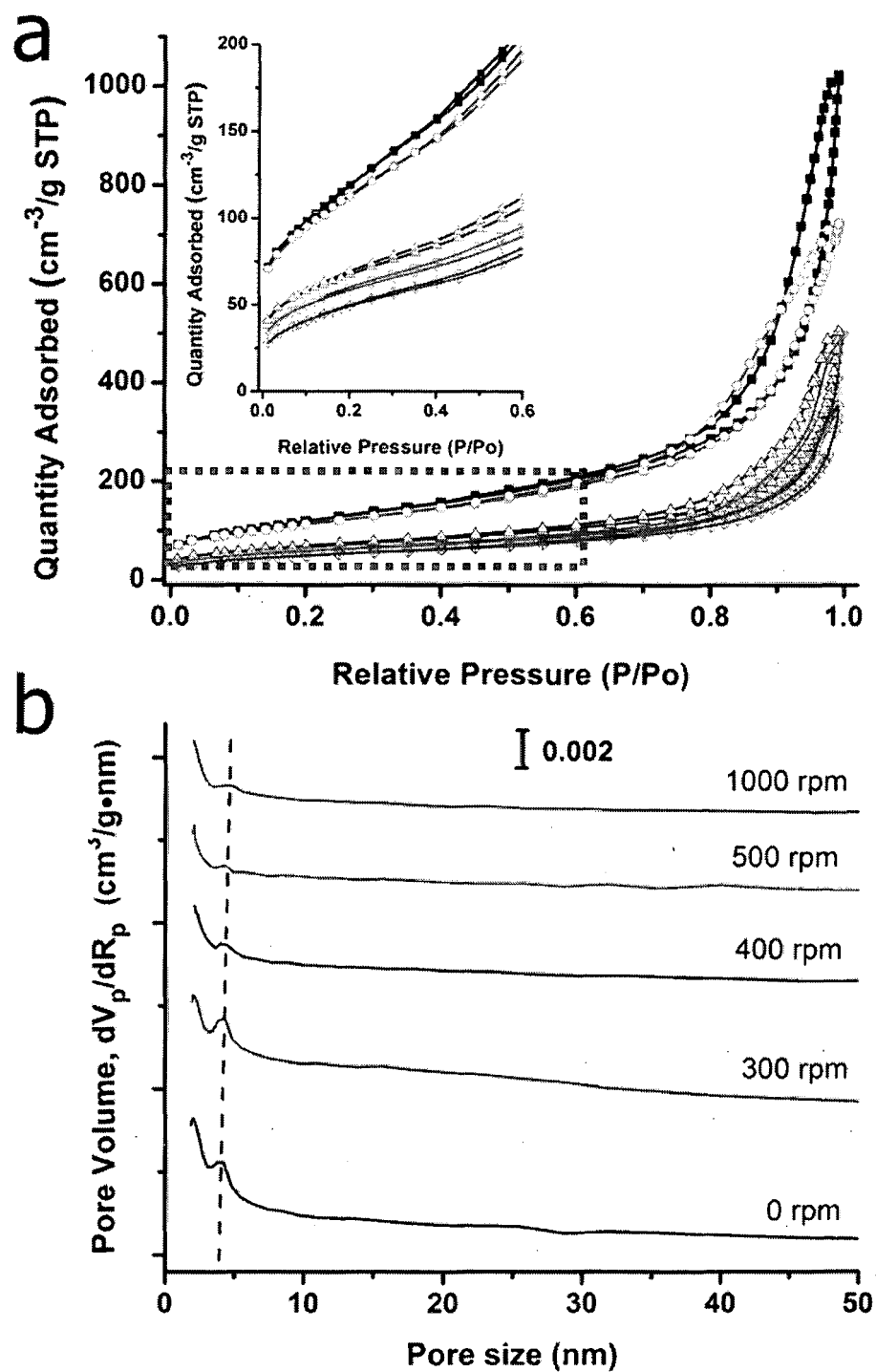
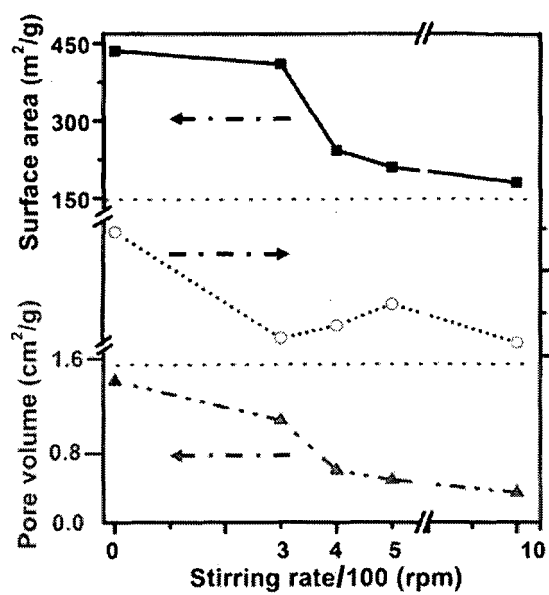
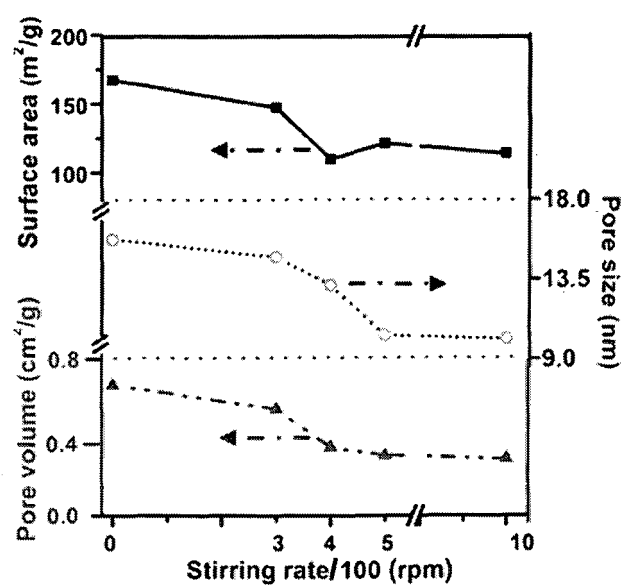


FIG. 23



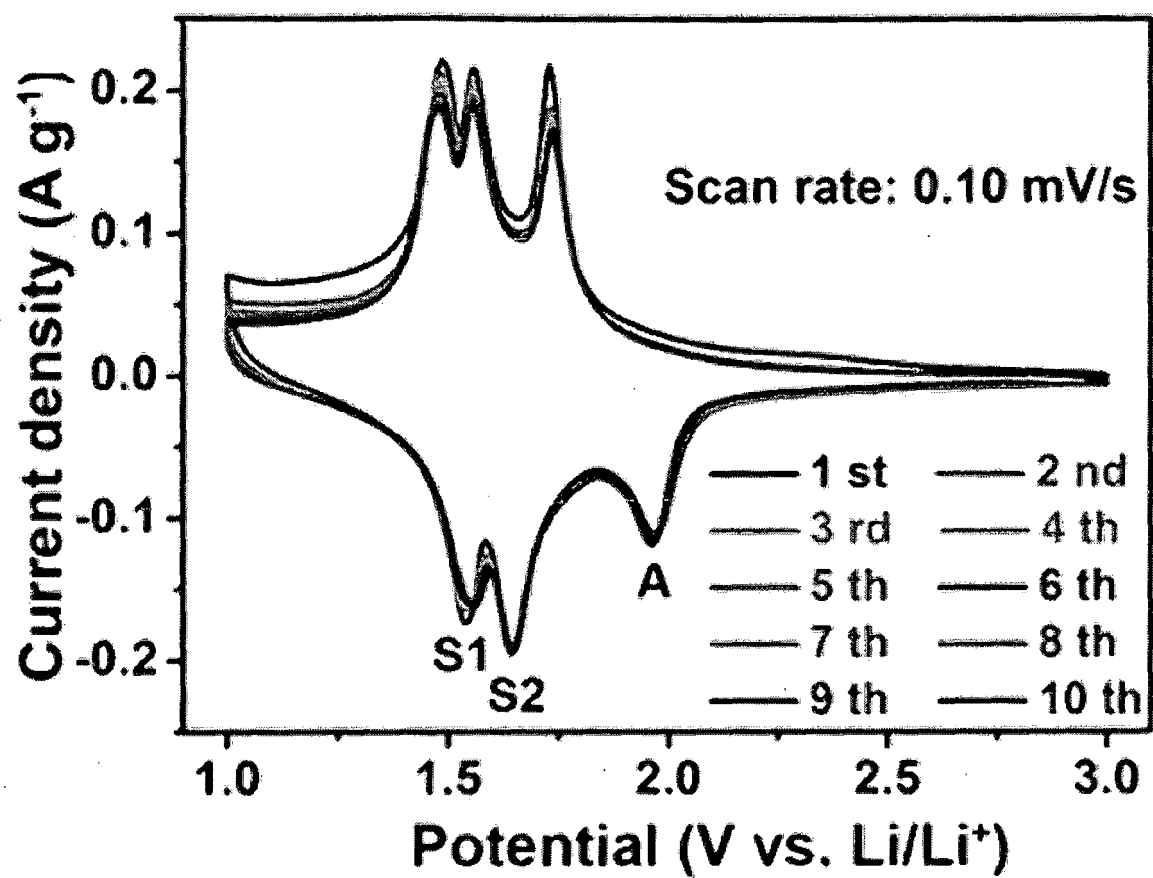
a



b

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FIG. 24



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FIG. 25

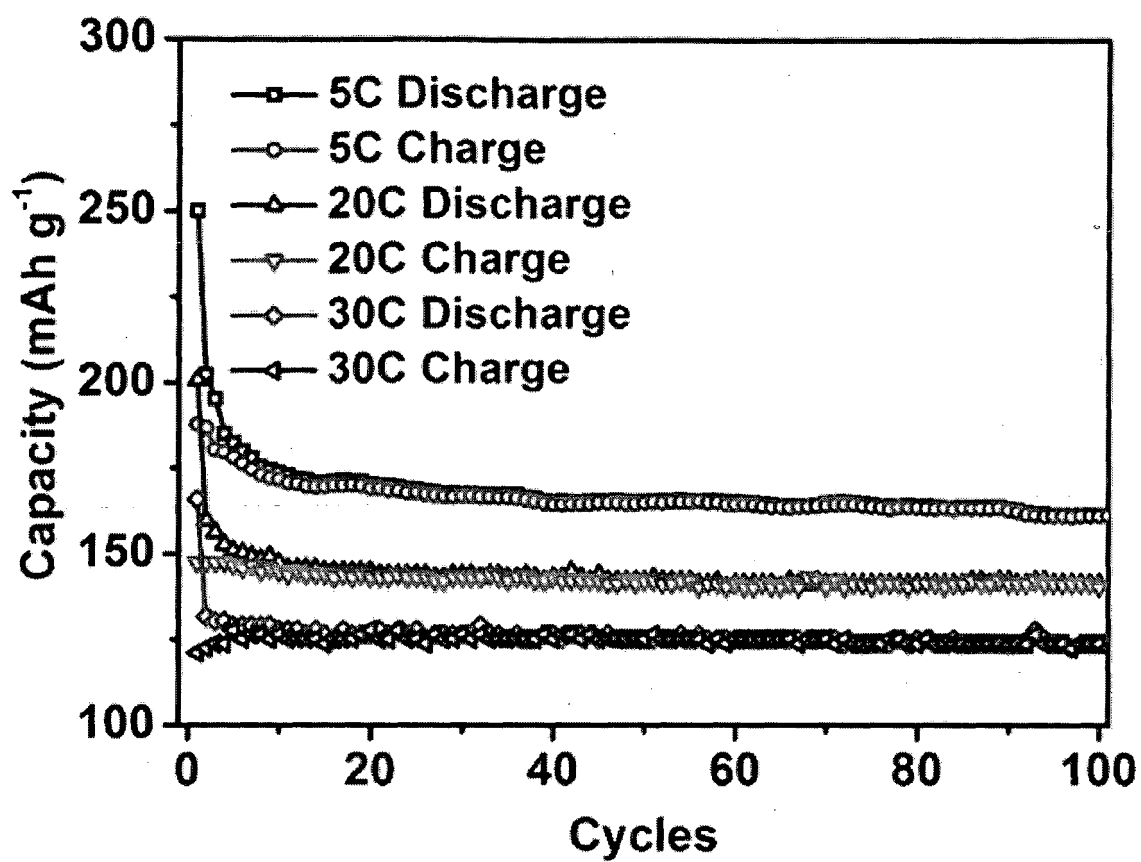
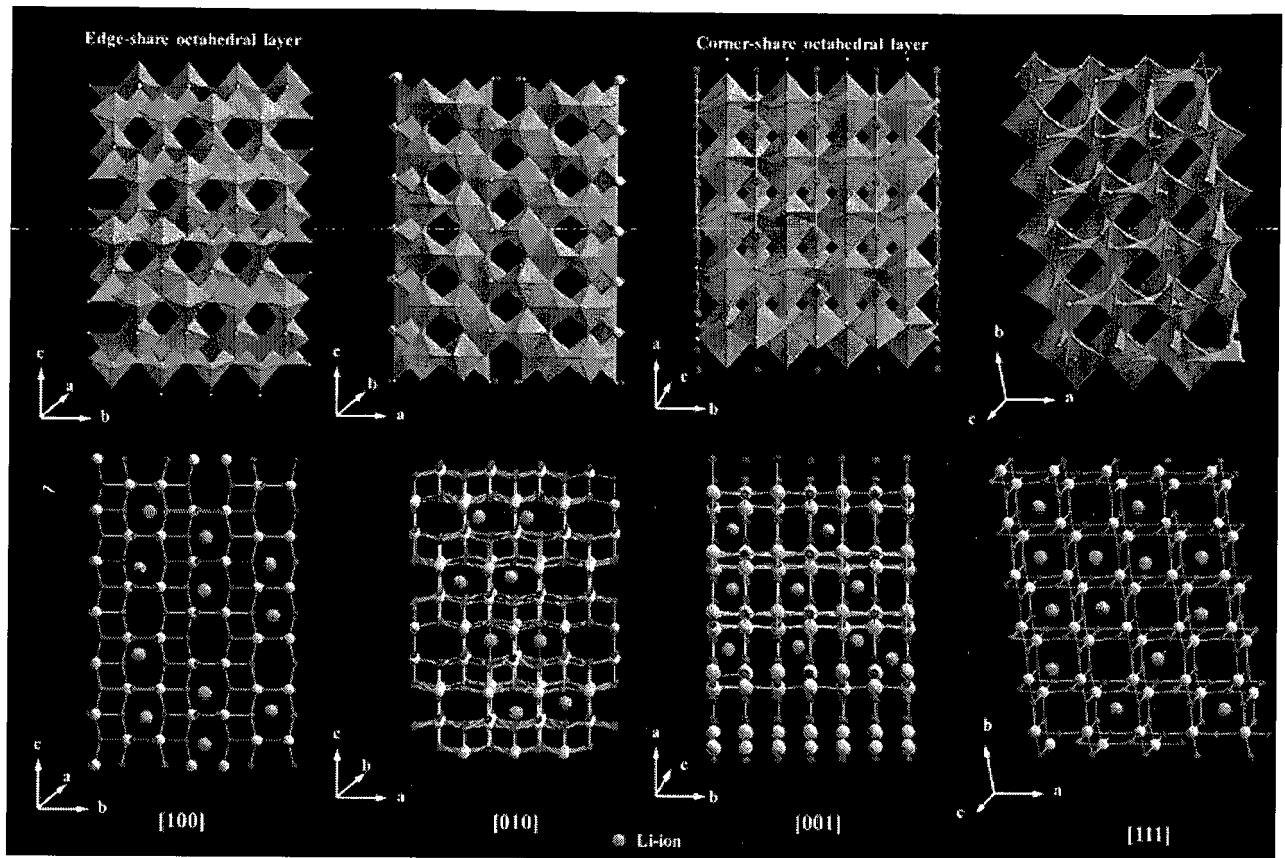


FIG. 26



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FIG. 27

Table S1. The relationship of the stirring rate with viscosity of the solution, length and diameter of the titanate nanotube.

Stirring speed (rpm)	Viscosity η (Pa.s)	Length (μm)	Diameter (nm)	Aspect ratio $\frac{L}{d}$	$\frac{L^2}{1000}$
0	0.014 ± 0.002	0.45 ± 0.18	8.7 ± 1.5	51	2.7
300	0.040 ± 0.006	6.8 ± 2.2	63 ± 15	108	11.4
400	0.199 ± 0.007	11.9 ± 4.4	85 ± 27	140	19.4
500	0.713 ± 0.001	30.7 ± 4.5	116 ± 30	265	70.0
1000	0.426 ± 0.003	28.7 ± 3.4	132 ± 65	217	47.2

FIG. 28

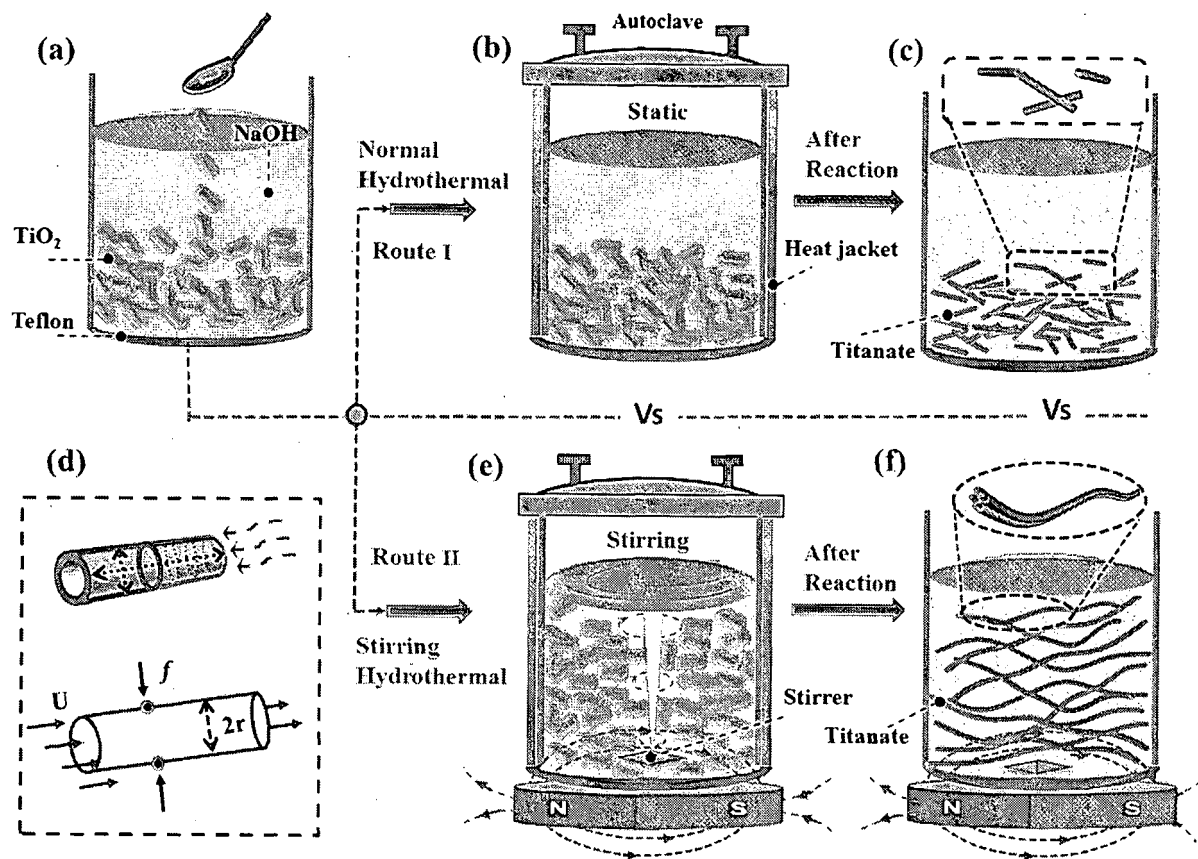
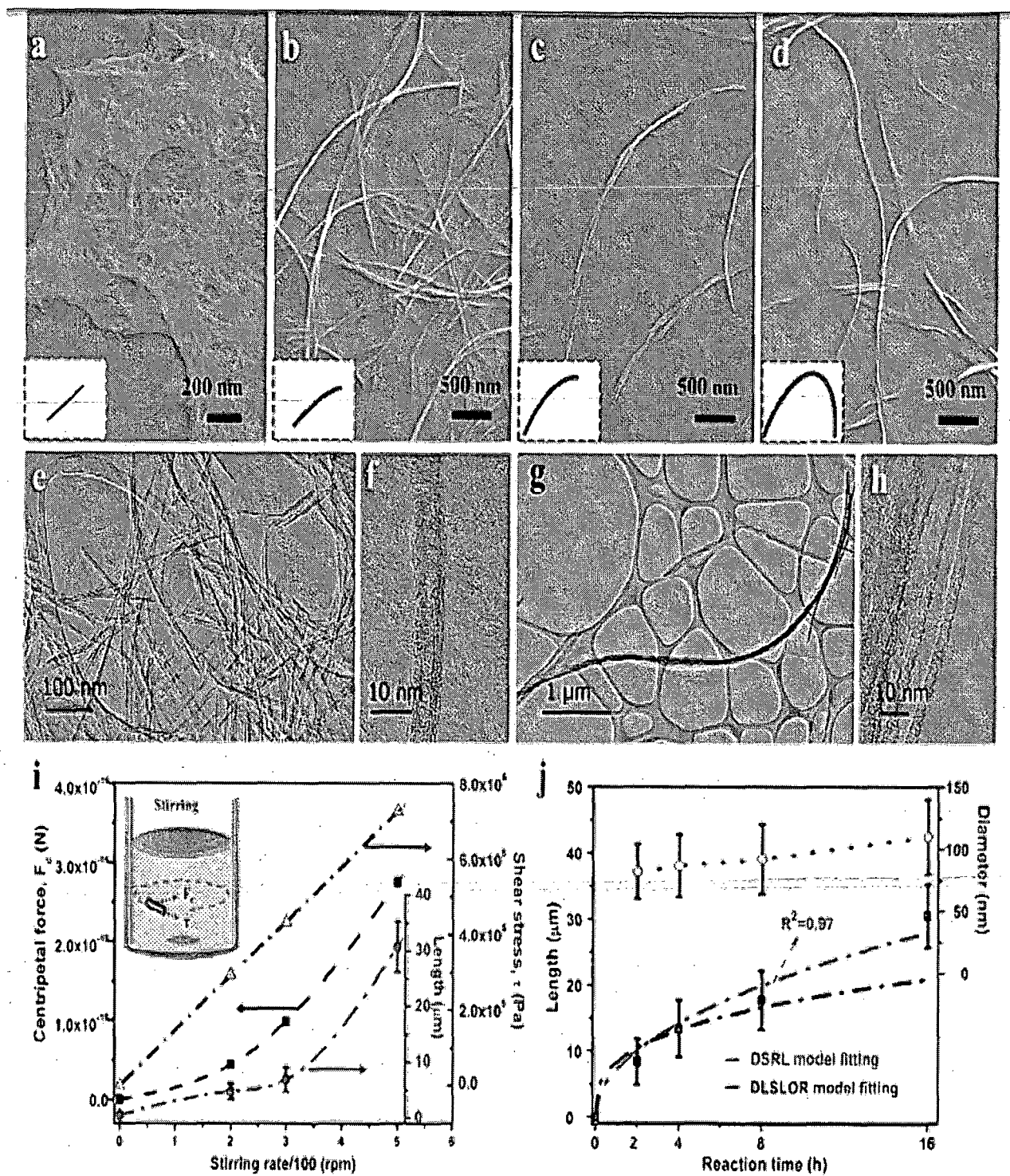
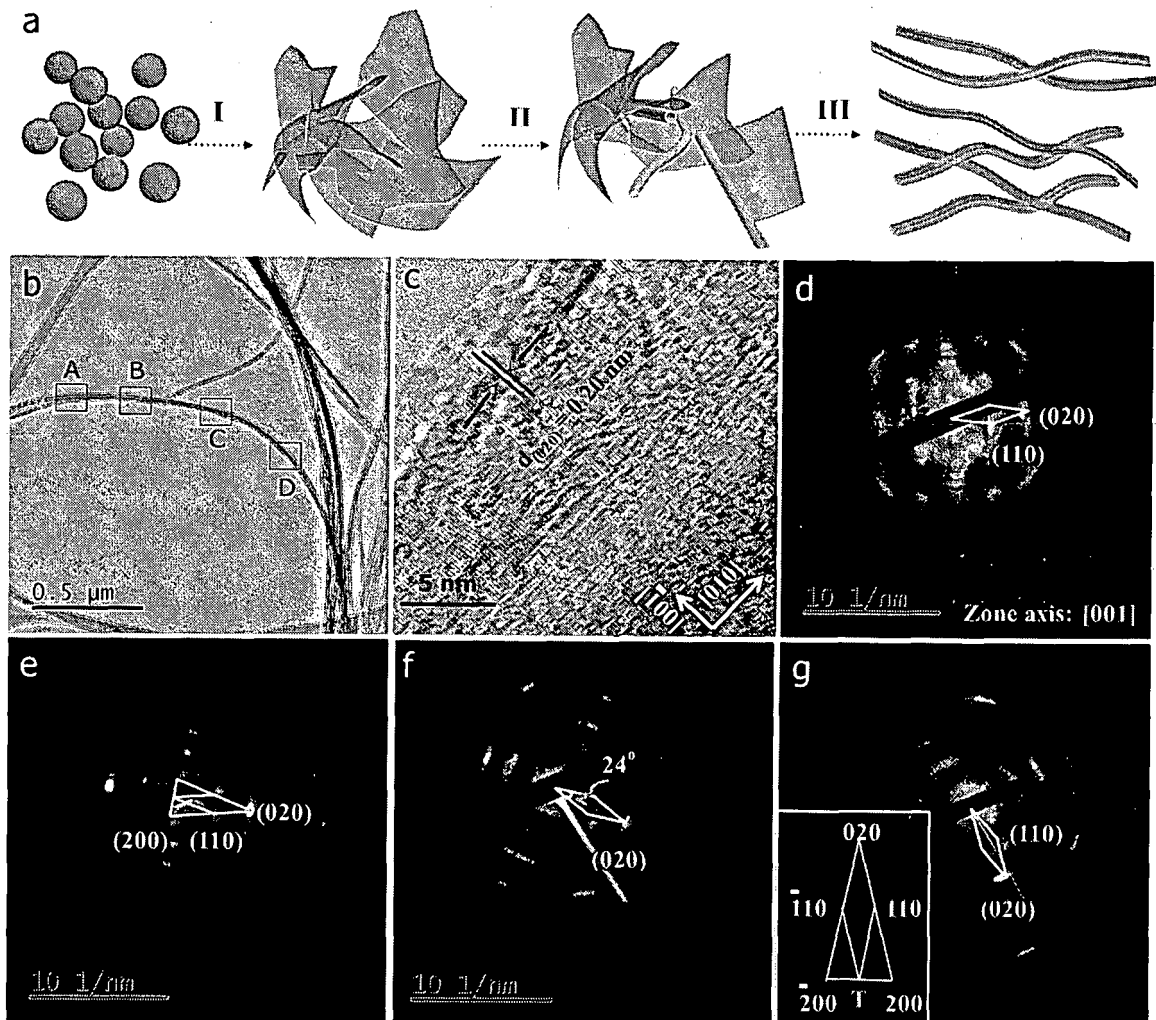


FIG. 29



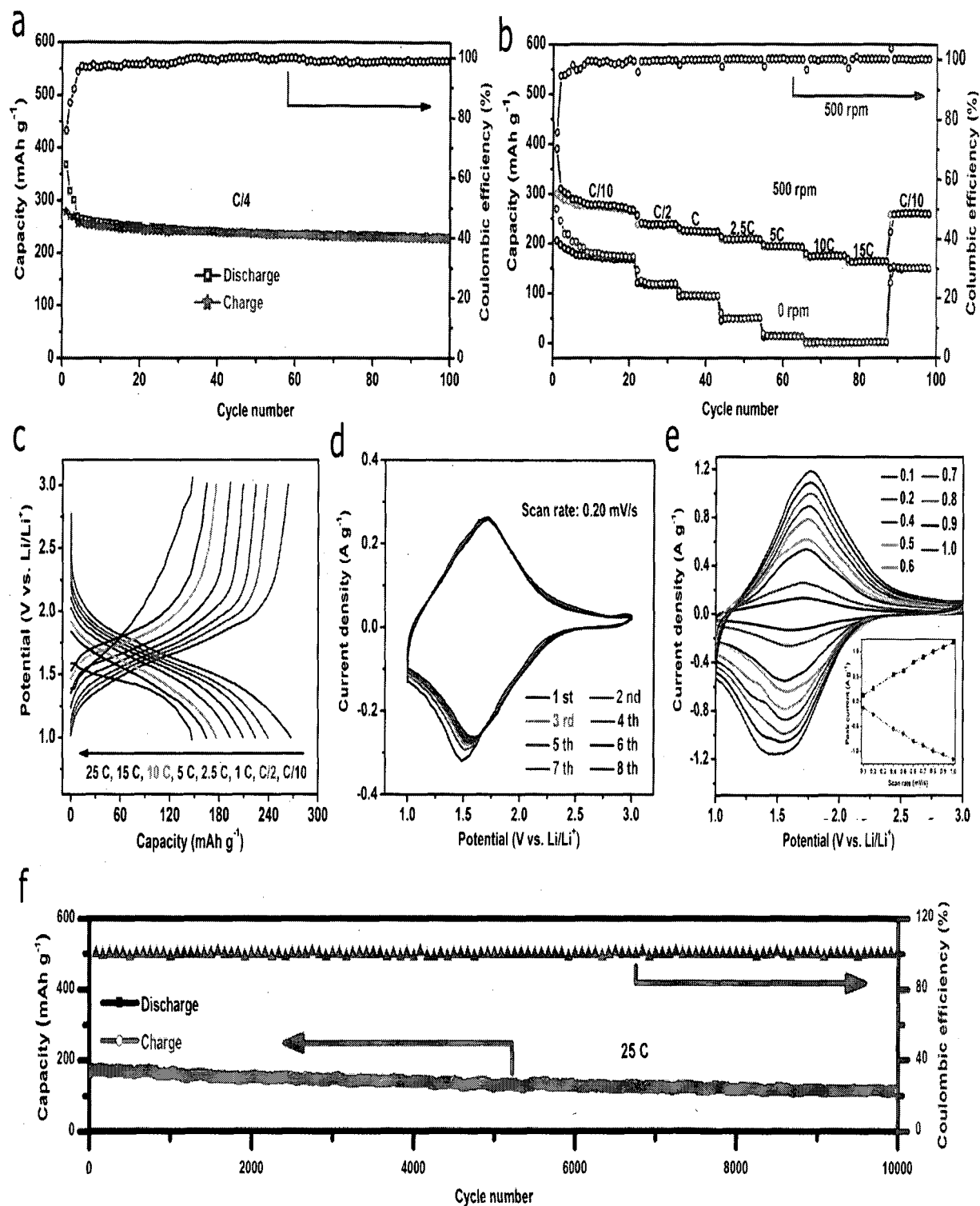
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FIG. 30



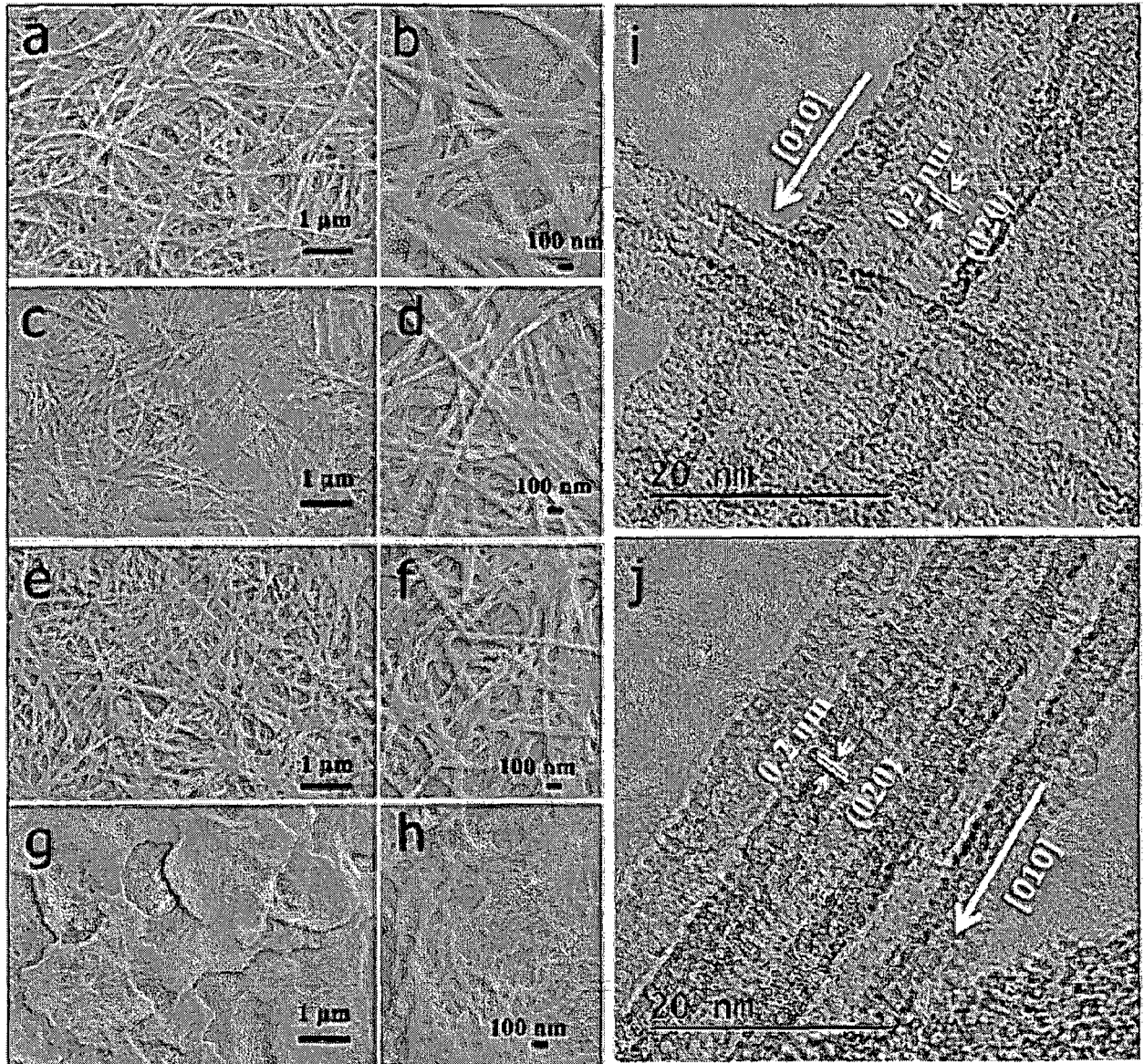
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FIG. 31



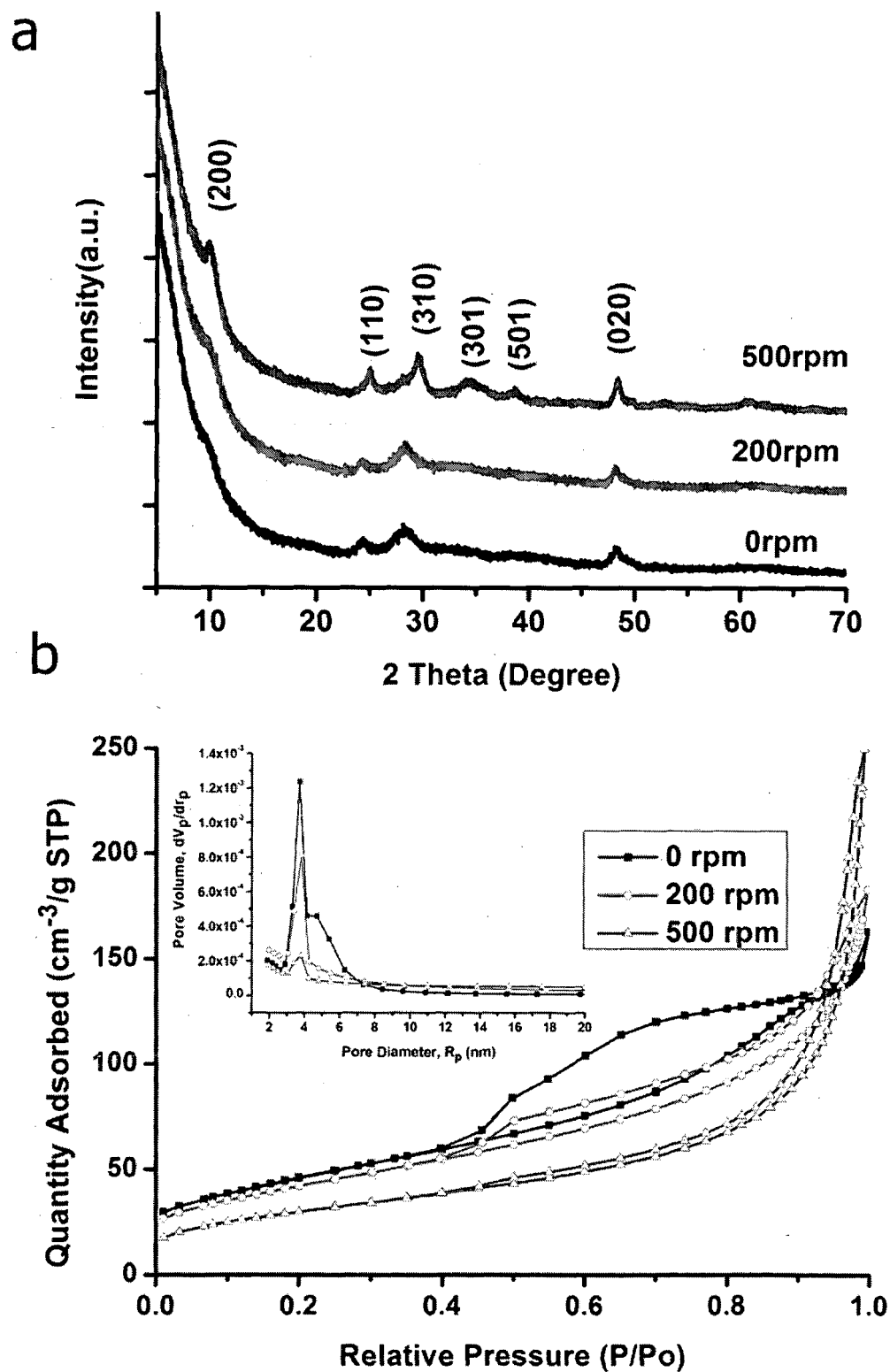
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FIG. 32



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FIG. 33



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FIG. 35

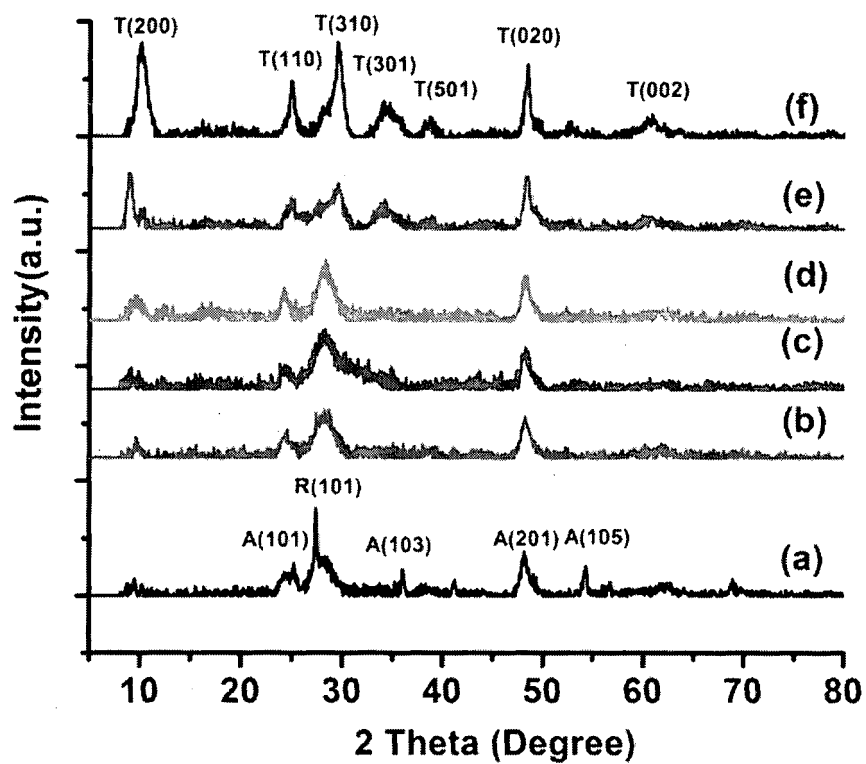
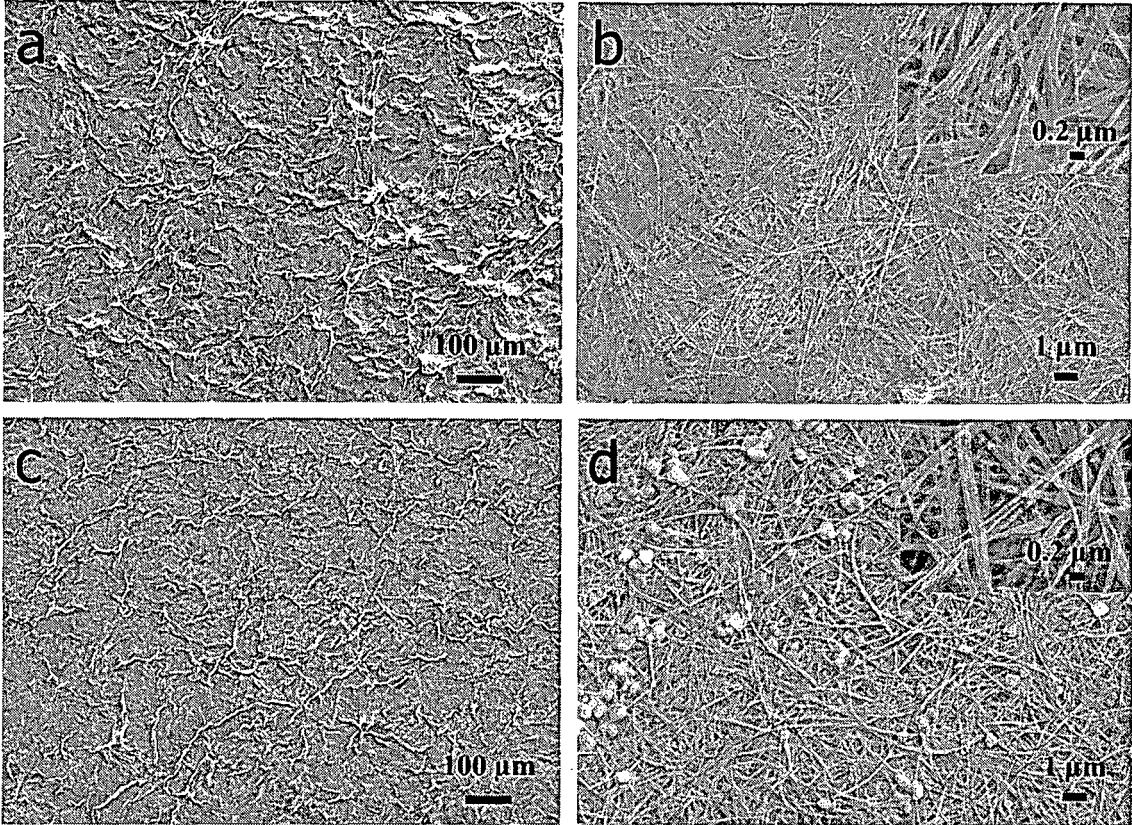
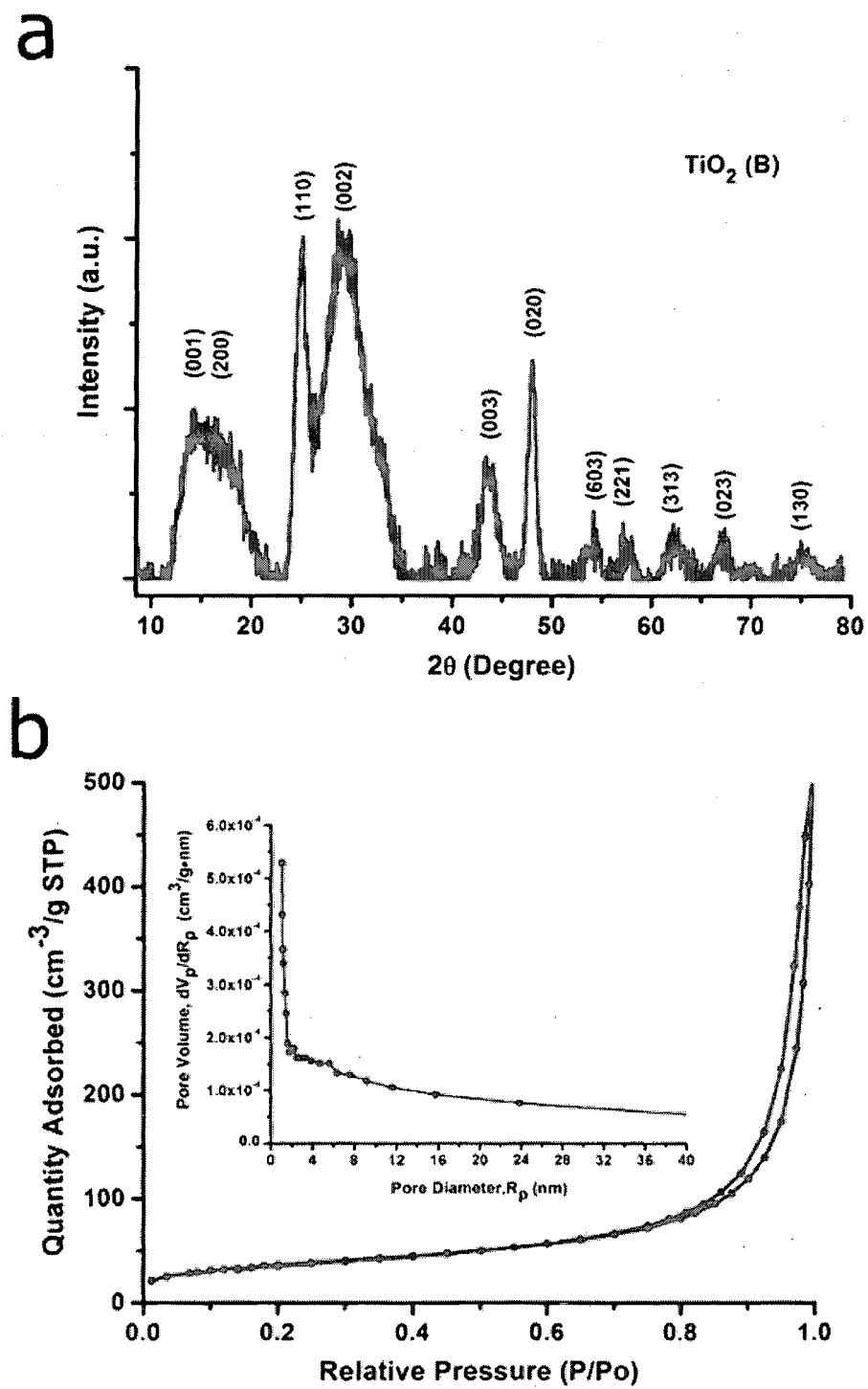


FIG. 36



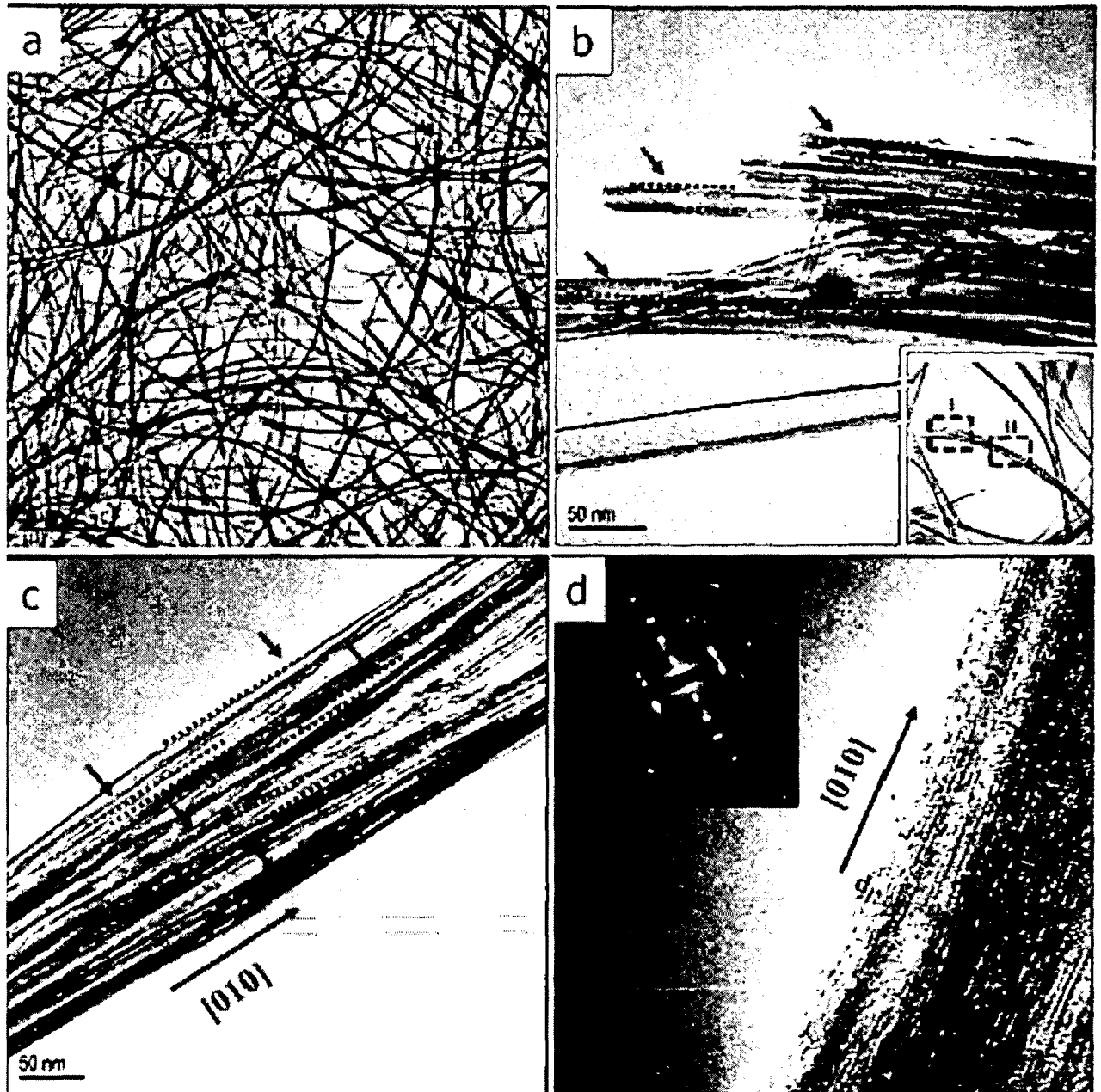
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FIG. 37



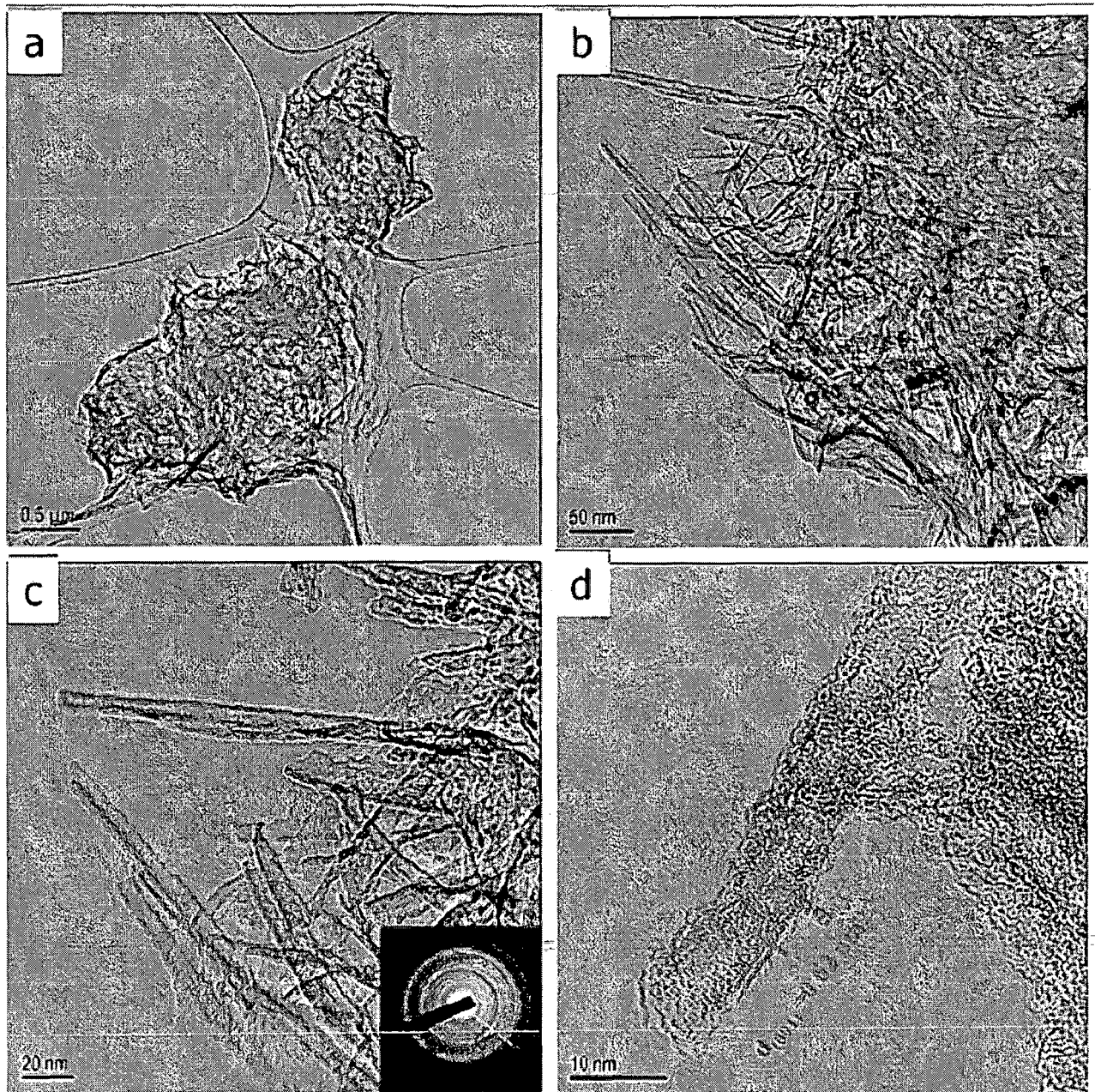
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FIG. 38



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FIG. 39



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FIG. 40

