ELSEVIER

S - S

F D , G *, J , L , L *, Q F , H F , K J

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F
P

A B S T R A C T

H , - S *via* - UV . T S . F , S 160 °C 6

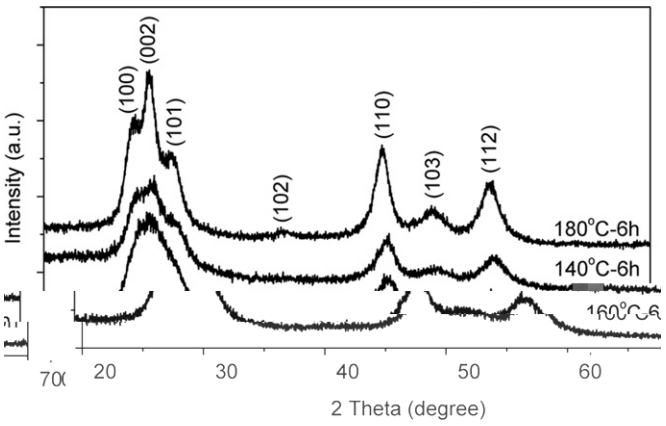

Fig. 1. RD S-140, S-160 S-180 .

(200). T 1
/ . T
300 W
365 . A
, ,
. T R B
UV V 554 . F ,
T O_2 (D P25)
.
T •OH - S ,
in situ -
(TPA)
R B TPA. T -
. S ,
425 315 .

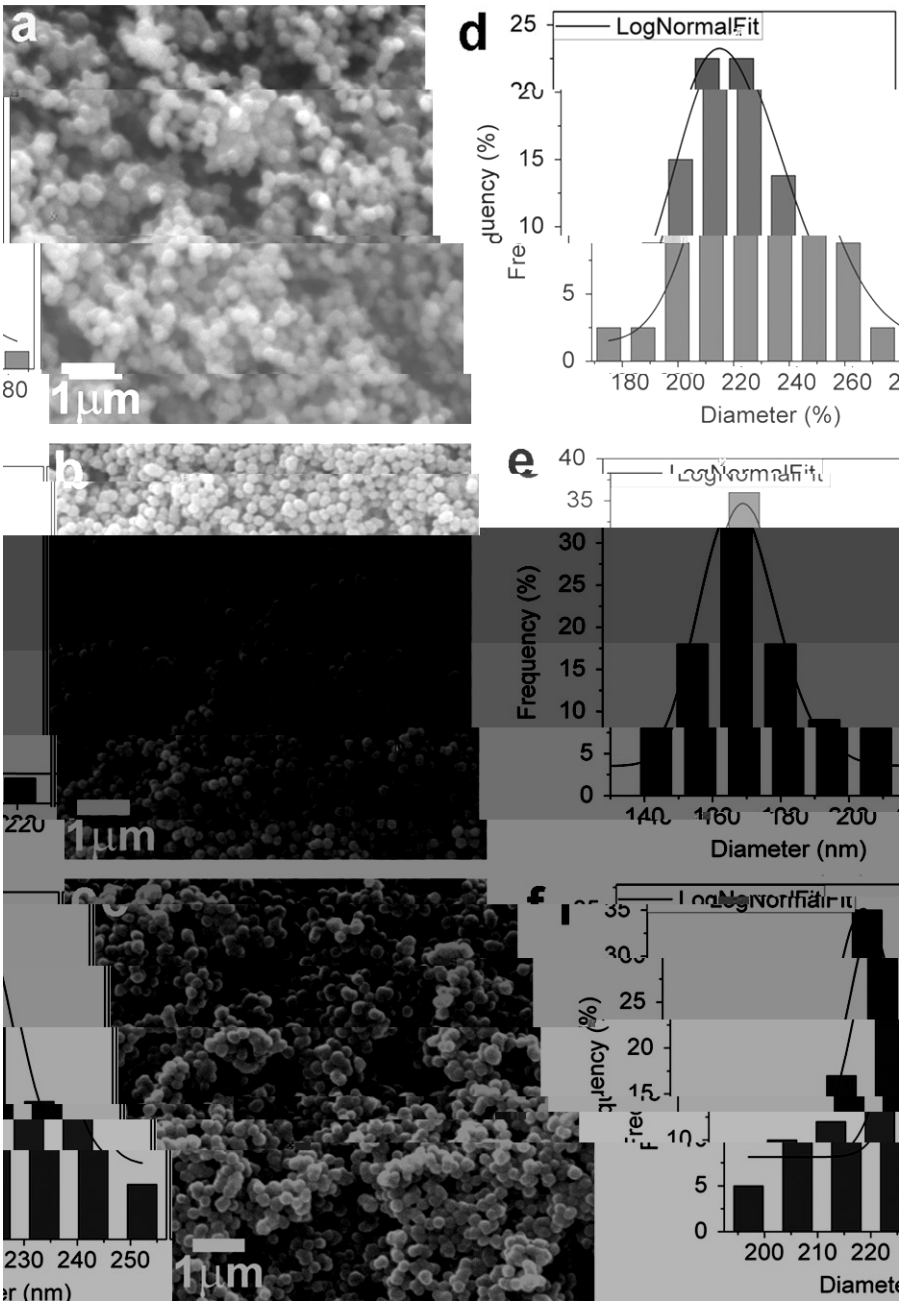

Fig. 2. ( ) SEM S-140, S-160 S-180 . ( ) P S-140, S-160 S-180 .

3. Results and discussion

F RD S (F . 1), RD , 27.18, 28.64, 30.50, 39.62, 47.75, 52.02 56.53 (100), (002), (101), (102), (110), (103) (112) z (JCPDF 36-1450), . I , F SEM (F . 2), . T S-140, S-160 S-180 - 230.3, 169.7 233.5 , . T S-160 S-140 S-180 . T . F BET , SSA S-140, S-160 S-180 131.2, 222.4 108.0 ^{2}/ , . T SSA S-160 S-140 S-180 , S-160 . I , 12 24 160 °C . F (F . 3), 12 24 6 . H , 203.1 (12) 268.5 (24) (F . 3), , 6 . T F UV S (F . 4), 339 S-140, 326 S-160 340 S-180. T S-160 S-140 S-180 . T S-160 . B S R B UV . F (F . 4), 120 , S-160 96.6%, S-140 (28.8%), S-180 (44.1%) P25 (75.7%). T S-160 SSA S , . T R B S-160 R B (F . 4). F , (ICP MS) $^{2+}$ S . F , (•OH) 14 . T , •OH S

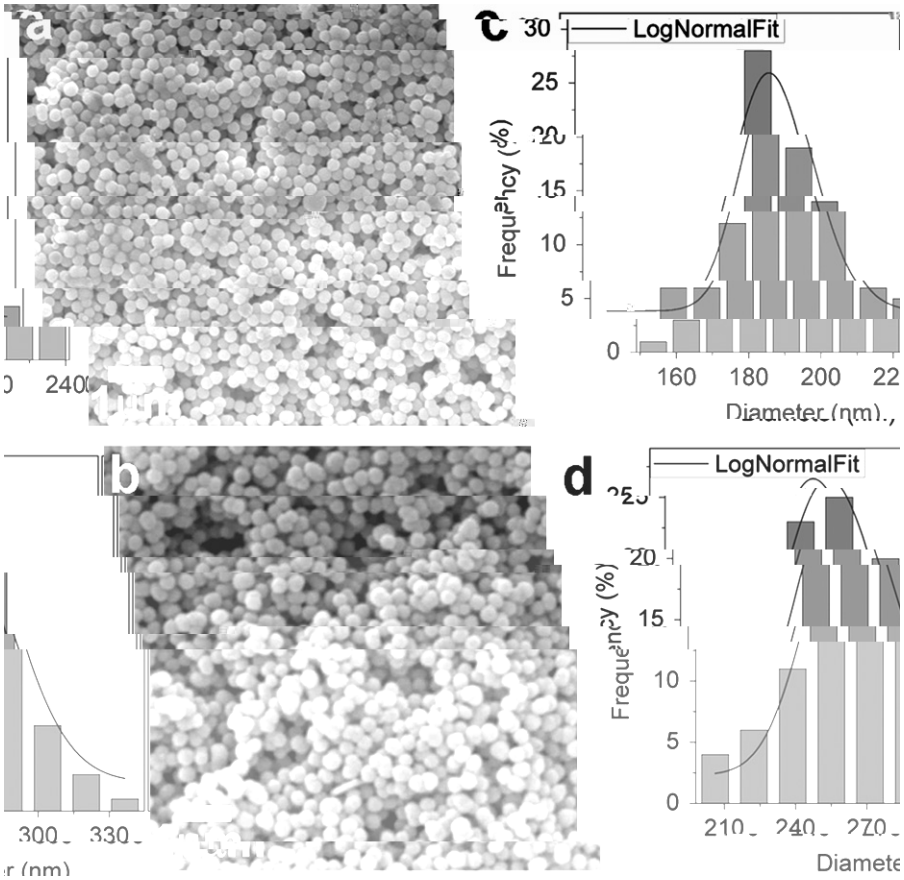

Fig. 3. ( ) SEM S 12 24 160 °C. ( ) S 12 24 160 °C.

in situ 4,15 . F
(F . 4),
(PL) ,
•OH. M , PL
, •OH
. T •OH S-
160 S-140
S-180 ,
. B ,
R B S
. F ,
’
’ . T
(υb) (cb), ($h_{\upsilon b}^{+}$)
(e_{cb}^{-})
(E . (1)). S , $h_{\upsilon b}^{+}$ e_{cb}^{-}
•OH (E . (2) (3)). F ,
•OH R B
(E . (4)).

$$S + \rightarrow S\,(e_{cb}^{-}+h_{\upsilon b}^{+}) \quad (1)$$

$$h_{\upsilon b}^{+}+H_2O\rightarrow H^{+}+{}^{\bullet}OH \quad (2)$$

$$h_{\upsilon b}^{+}+OH^{-}\rightarrow {}^{\bullet}OH \quad (3)$$

$$^{\bullet}OH + \rightarrow \quad (4)$$

4. Conclusions

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.
T - •OH, S -
UV ,
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Ackno ledgments

T N N
S F C (21171051, 21271066, U1204516)
P C S I R
T U (IRT1061) I F O -
S H P (114200510004) K
T P H P (2012GGJS-065)
H N U .

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