FIGURE 1

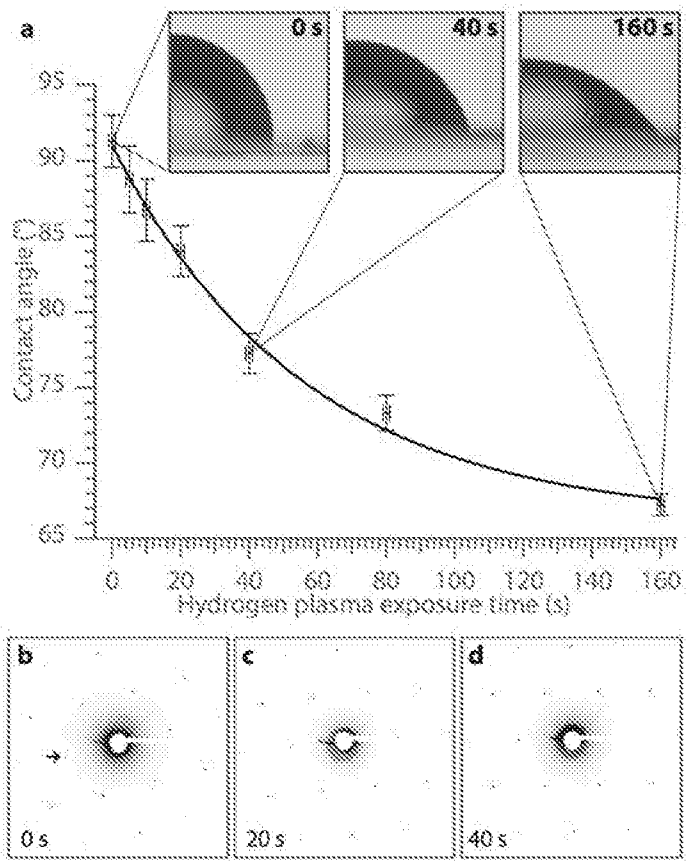
a
0 s
40 s
160 s
95
90
85
80
75
70
65
Contact angle (°)
0
20
40
60
80
100
120
140
160
Hydrogen plasma exposure time (s)
b
0 s
c
20 s
d
40 s

FIGURE 2

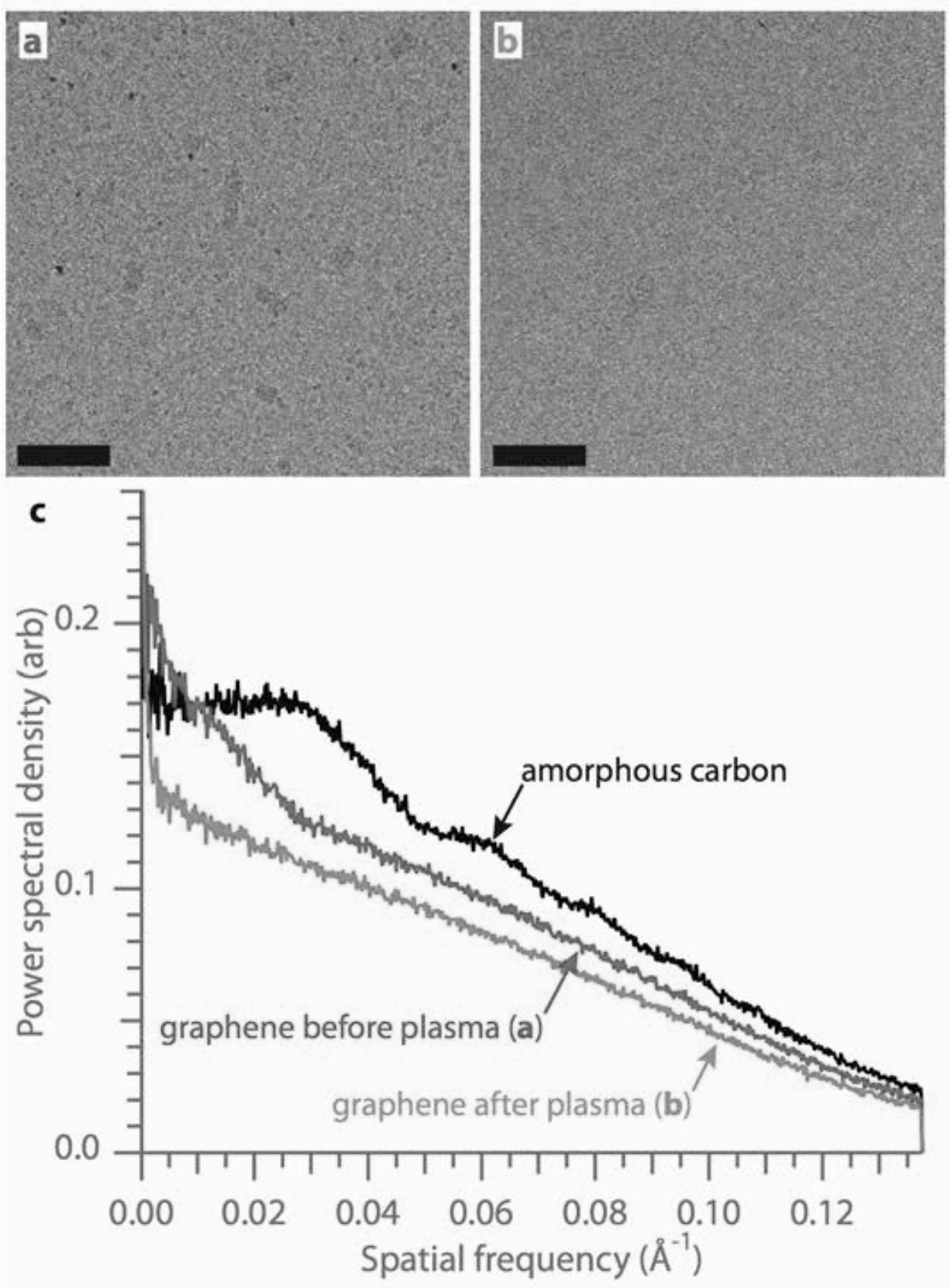
a
b
c
Power spectral density (arb)
0.2
0.1
0.0
amorphous carbon
graphene before plasma (a)
graphene after plasma (b)
0.00
0.02
0.04
0.06
0.08
0.10
0.12
Spatial frequency (Å-1)

FIGURE 3

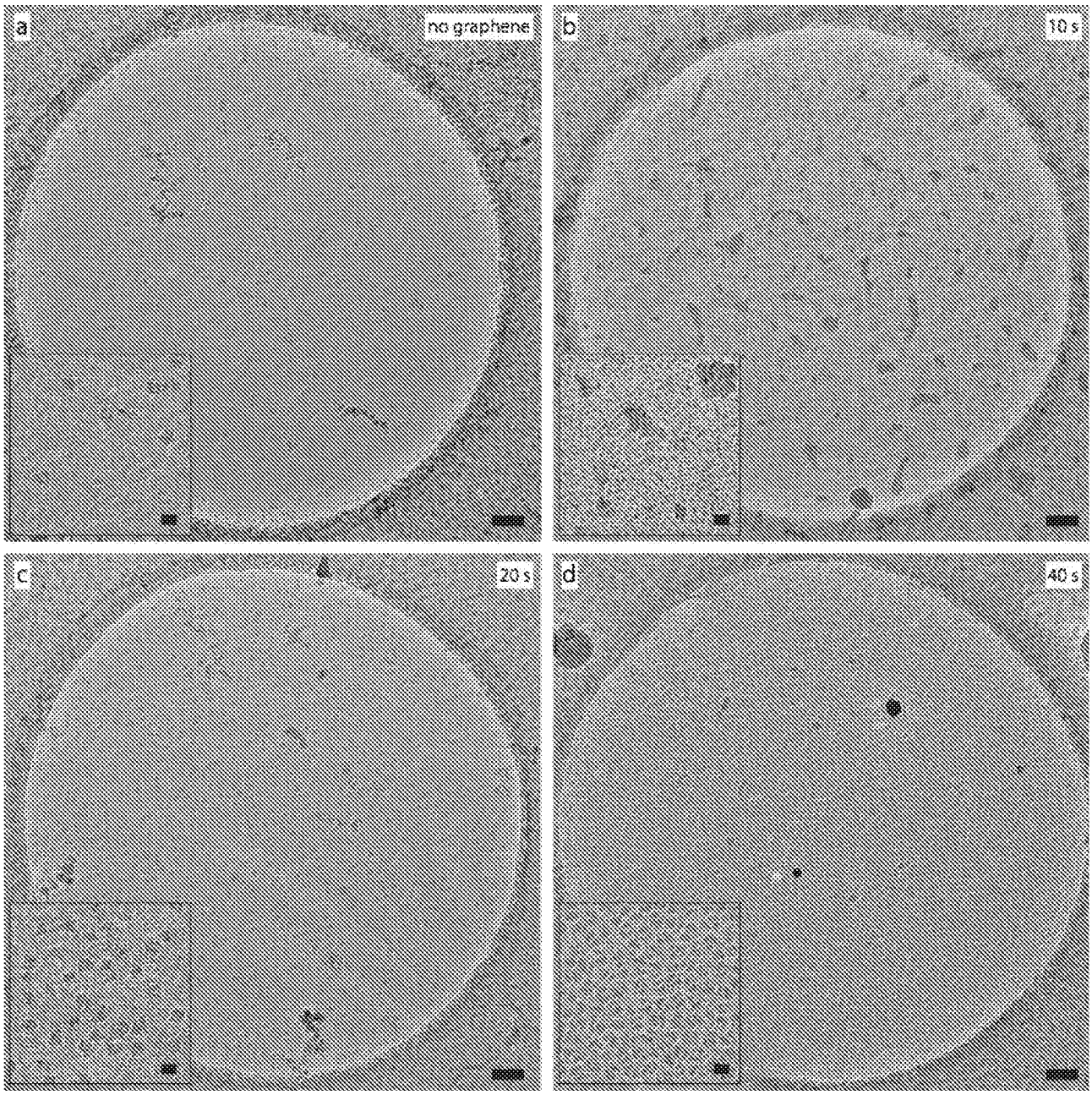

FIGURE 4

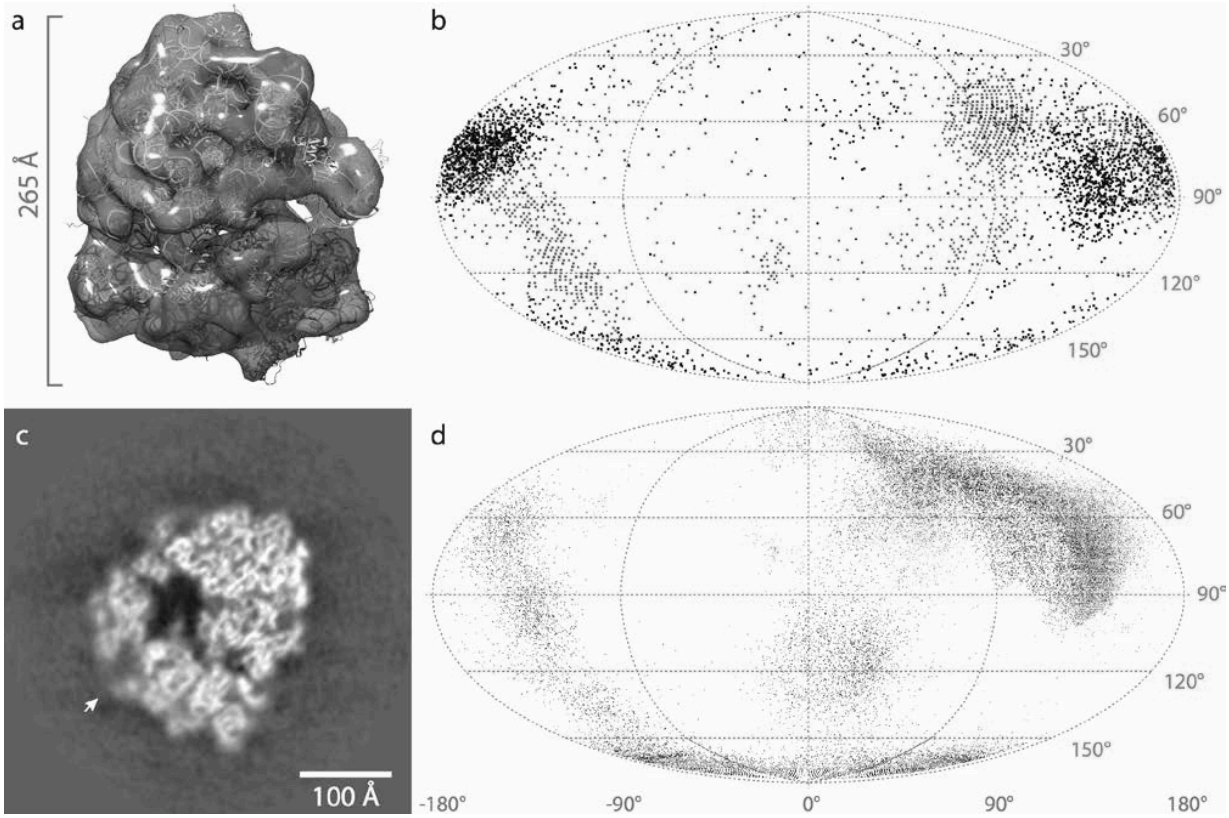

FIGURE 5

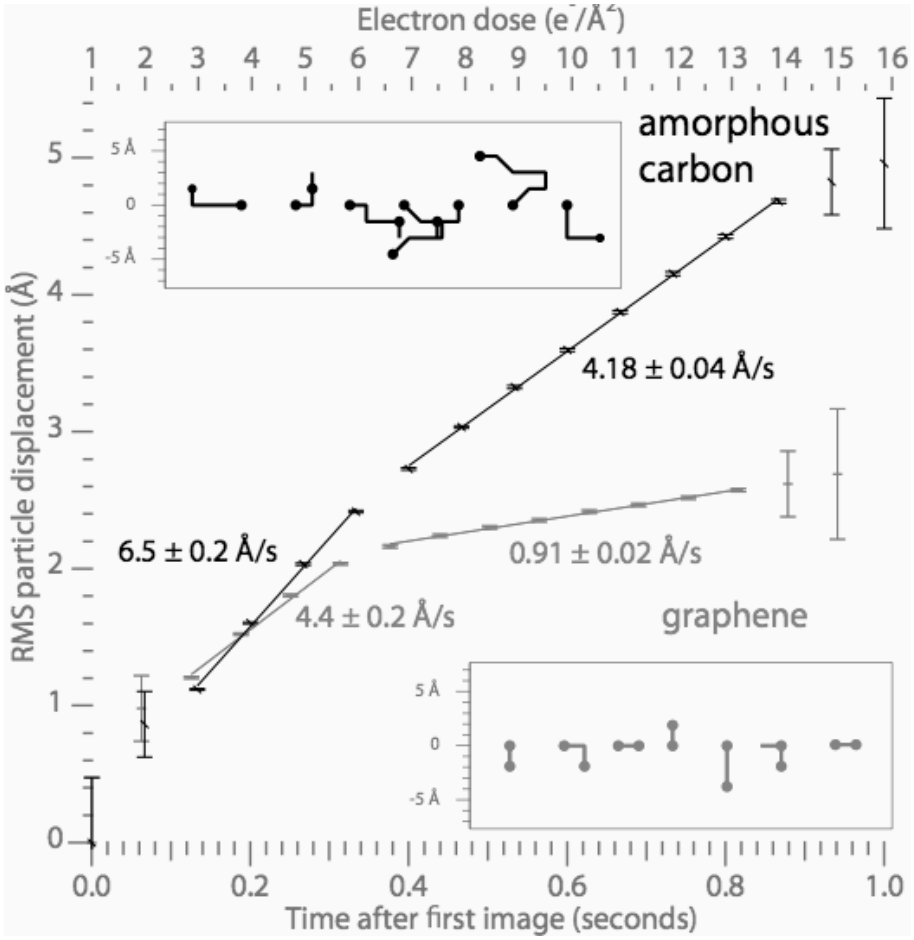

FIGURE 6

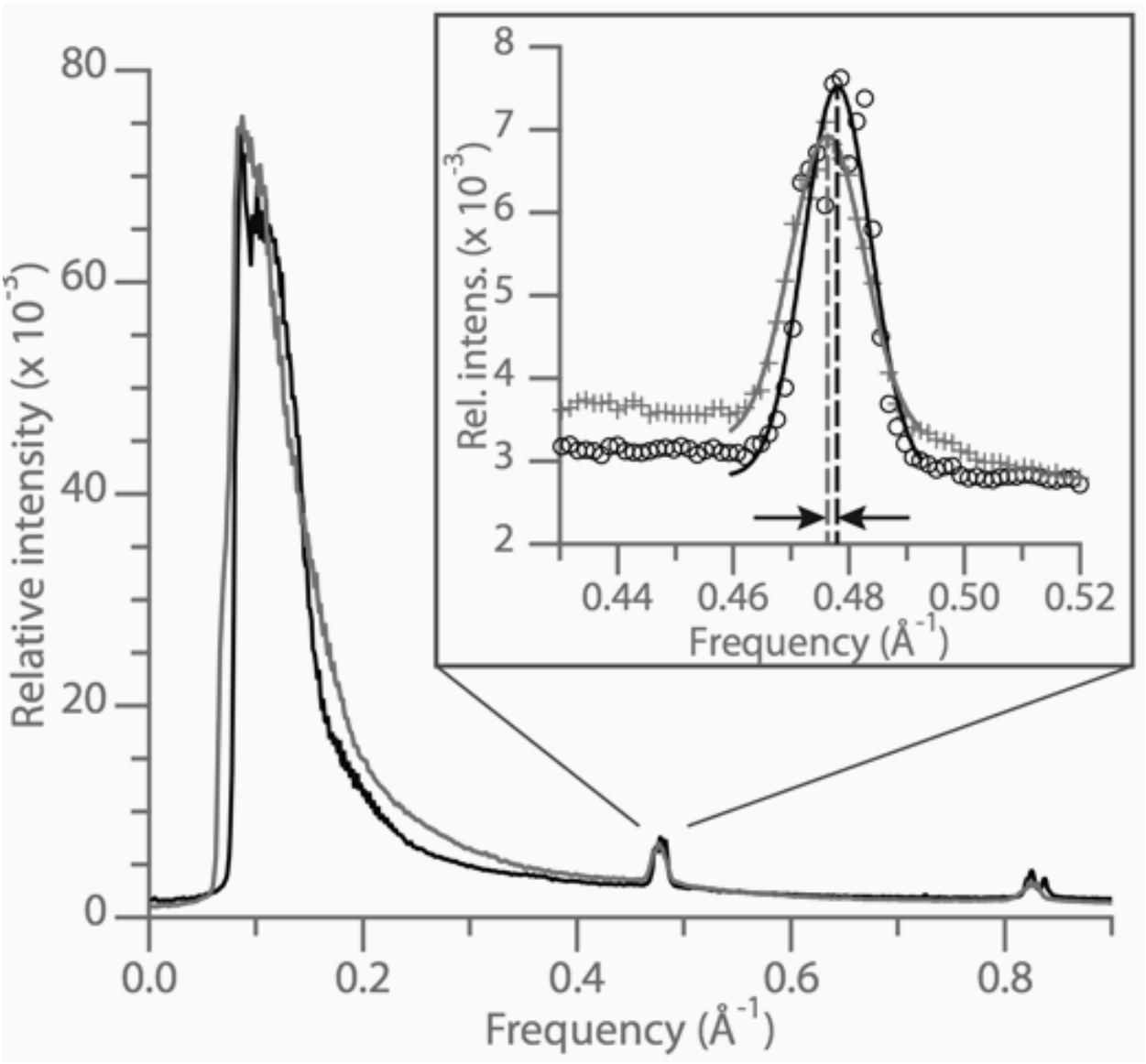
Relative intensity (x 10^{-3})
80
60
40
20
0
0.0
0.2
0.4
0.6
0.8
Frequency (Å^{-1})
Rel. intens. (x 10^{-3})
8
7
6
5
4
3
2
0.44
0.46
0.48
0.50
0.52
Frequency (Å^{-1})

FIGURE 7

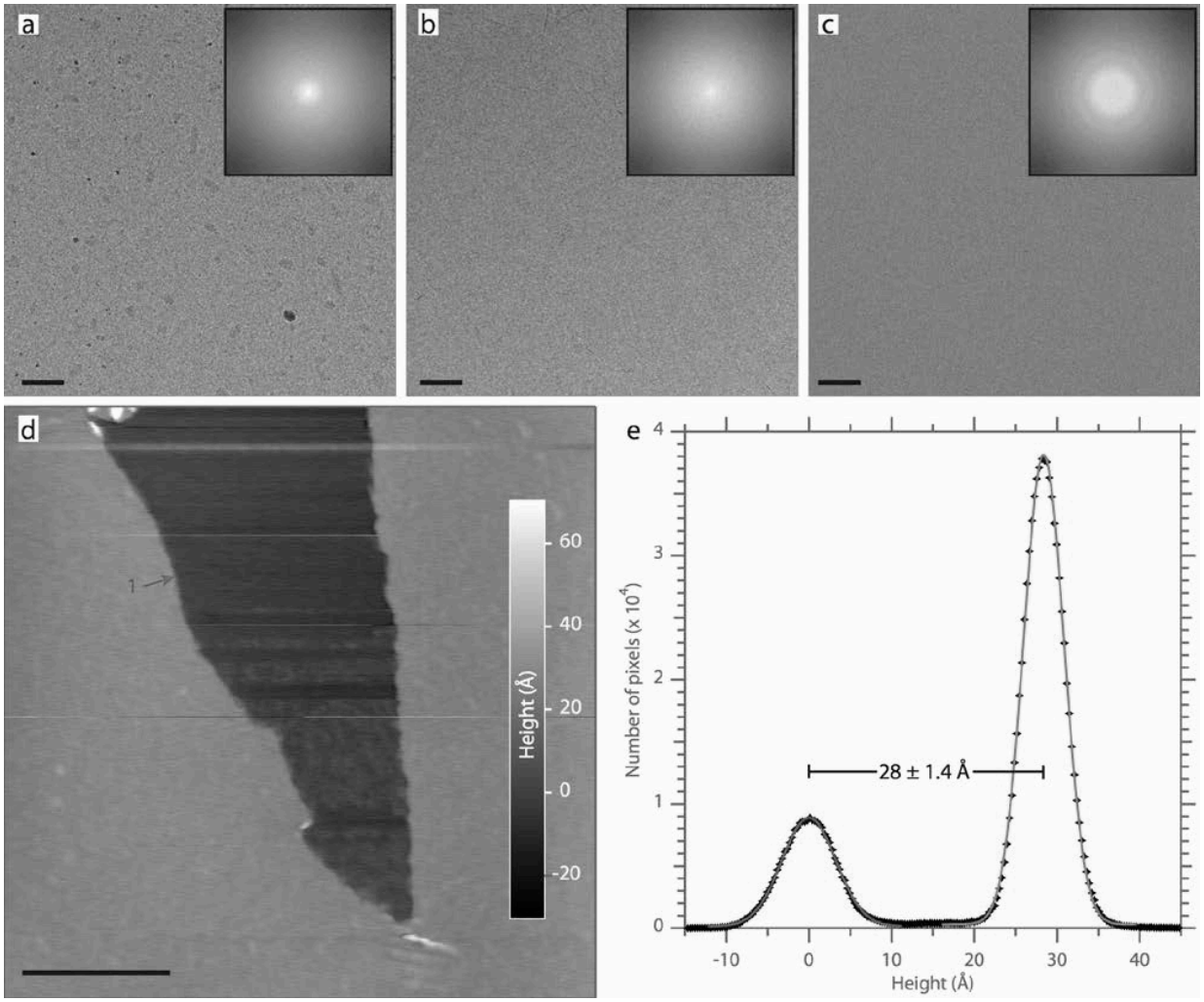
a
b
c
d
1
60
40
20
0
-20
Height (Å)
e
4
3
2
1
0
Number of pixels (x 10^4)
28 ± 1.4 Å
-10
0
10
20
30
40
Height (Å)

FIGURE 8

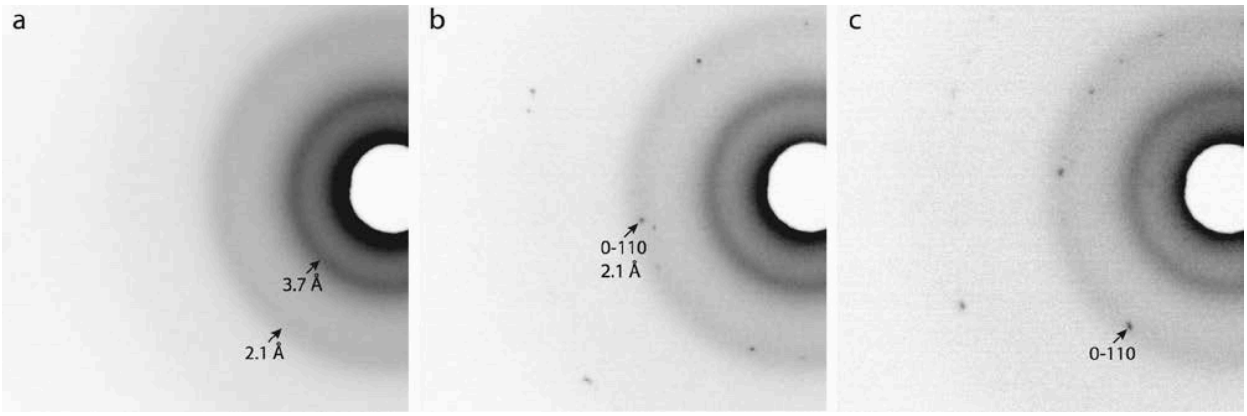

FIGURE 9

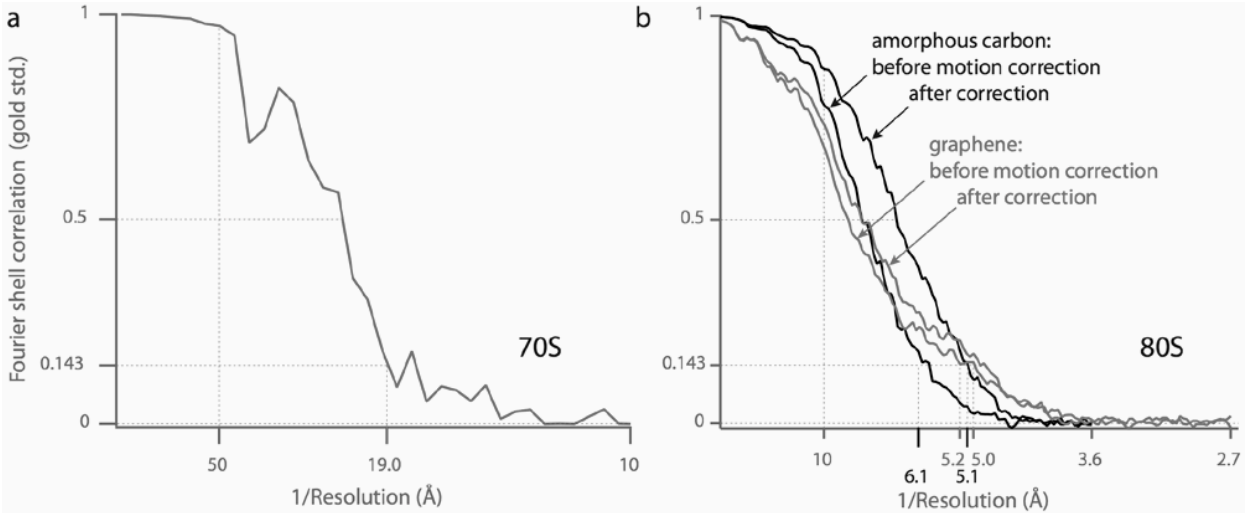
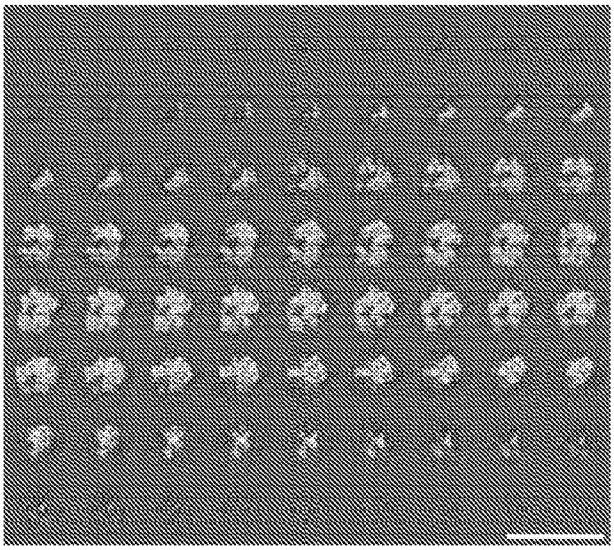
FIGURE 10