

## **New Insight into Structural Transformation in Li-Rich Layered Oxide during the Initial Charging**

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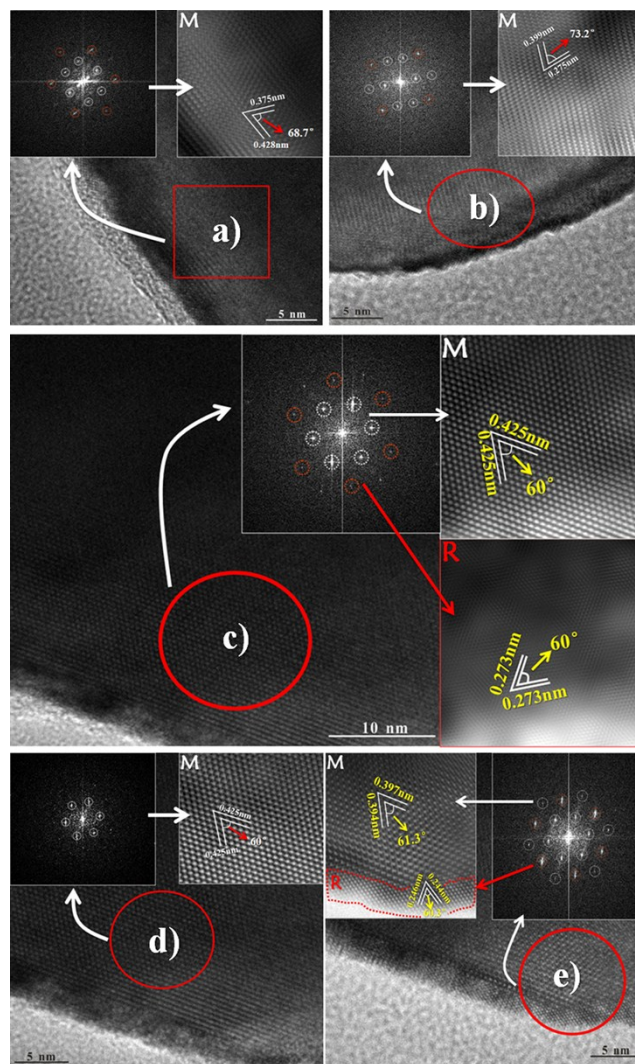
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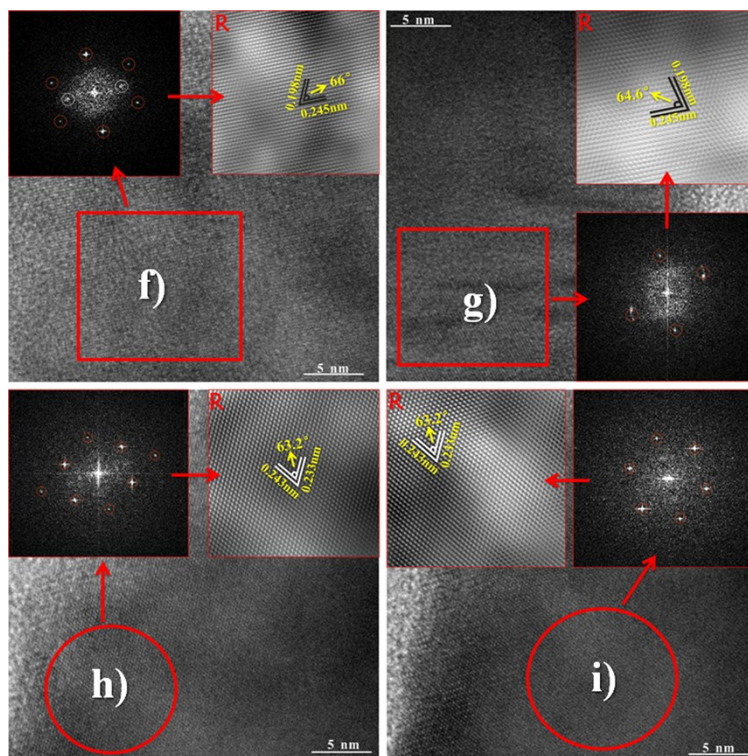
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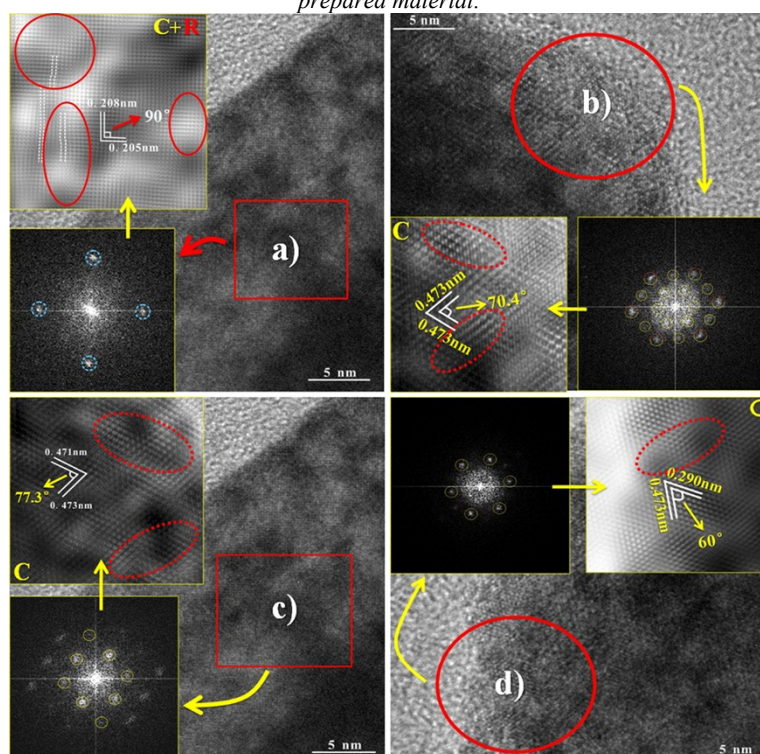
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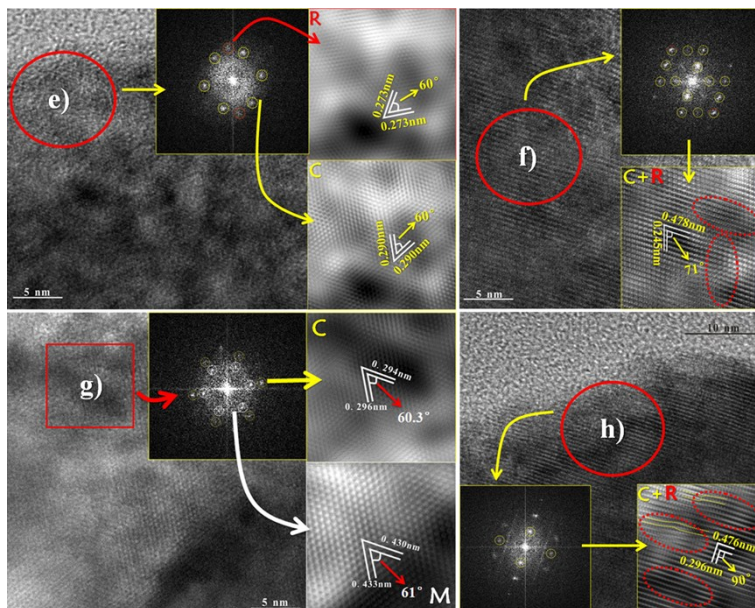
**Figure S1.** Five areas (a, b, c, d and e) in different particles from HR-TEM images including FFT and IFFT graphs of the pristine as-prepared material.



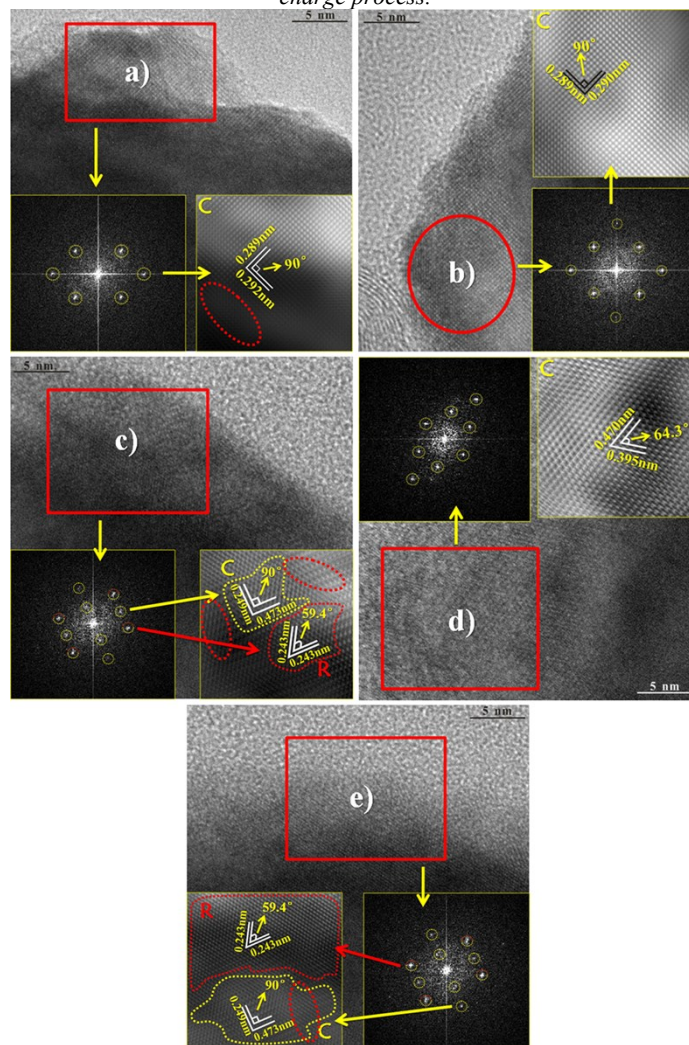
**Figure S2.** Four areas (f, g, h and i) in different particles from HR-TEM images including FFT and IFFT graphs of the pristine as-prepared material.



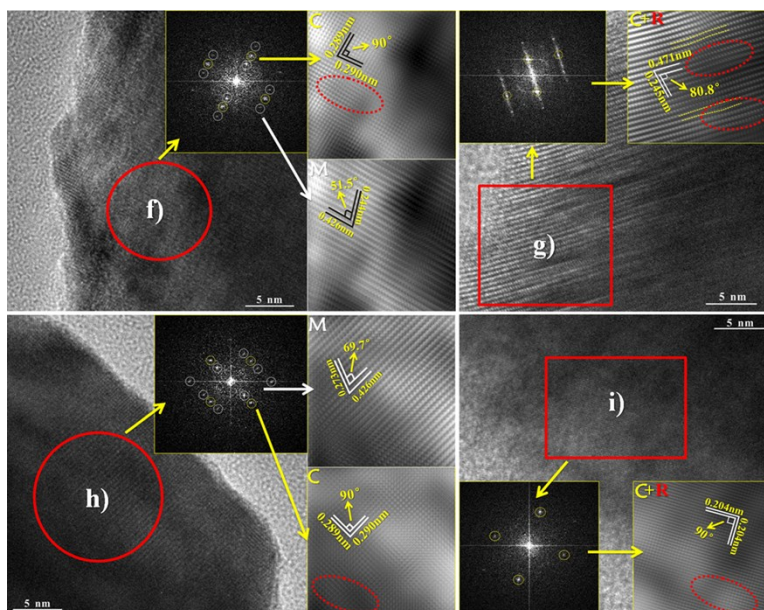
**5 Figure S3.** Four areas (a, b, c and d) in different particles from HR-TEM image including FFT and IFFT graphs at 4.20V of the first charge process.



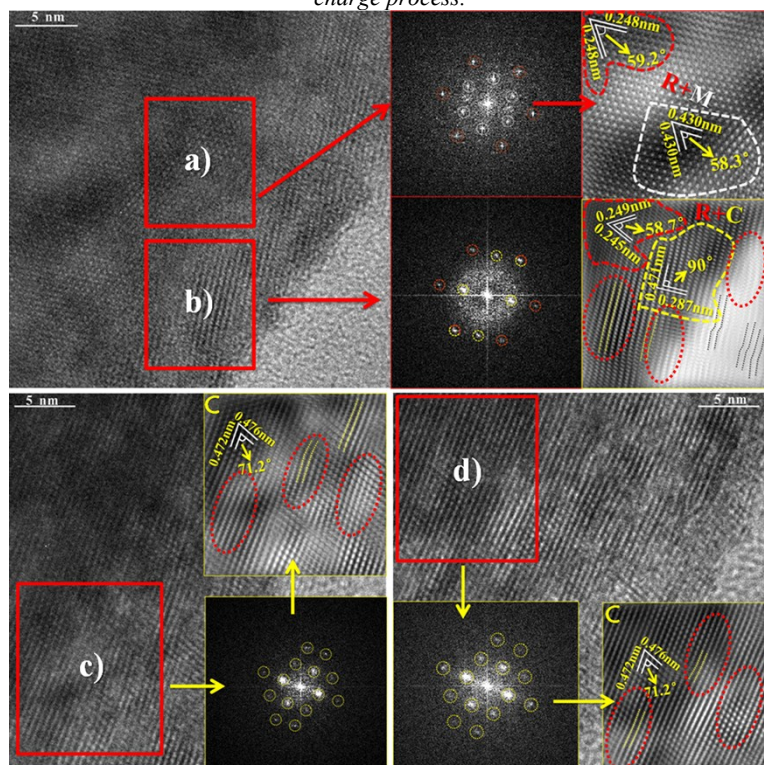
**Figure S4.** Four areas (e, f, g and h) in different particles from HR-TEM image including FFT and IFFT graphs at 4.20V of the first charge process.



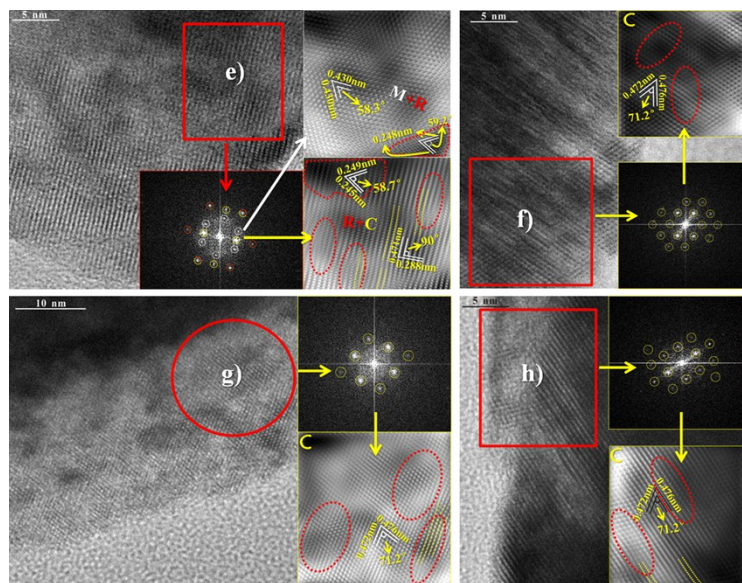
**5 Figure S5.** Five areas (a, b, c, d and e) in different particles from HR-TEM image including FFT and IFFT graphs at 4.50V of the first charge process.



**Figure S6.** Four areas (f, g, h and i) in different particles from HR-TEM images including FFT and IFFT graphs at 4.50V of the first charge process.



**5 Figure S7.** Four areas (a, b, c and d) in different particles from HR-TEM images including FFT and IFFT graphs at 4.70V of the first charge process.



**Figure S8.** Four areas (e, f, g and h) in different particles from HR-TEM images including FFT and IFFT graphs at 4.70V of the first charge process.