Mesopore-dominant Nitrogen-doped Carbon with a Large Defects Degree and a High Conductivity via Inherent Hydroxyapatite-induced Self-activation for Lithium-ion Battery

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Figure S1. SEM images of NMC-900.
Figure S2. TEM images of (a) NMC-600, (b) NMC-700, (c) NMC-800, (d) NMC-900 and (e) NMC-1000.

Figure S3. The contents of different N in the NMCs.
Figure S4. XRD pattern of the tortoise shells.

Figure S5. GCD curves of (a) NMC-800 and (b) NMC-1000.
Figure S6. Nyquist plots of NMC-900 after 500 cycles.

Table S1. Elemental analysis of the presented materials.

|       | XPS (at. %) | Electric conductivity (S m⁻¹) |
|-------|-------------|-------------------------------|
|       | C           | N                | O             |                             |
| NMC-600 | 82.57       | 9.18             | 8.25          | 1.18                        |
| NMC-700 | 84.24       | 7.02             | 8.74          | 107                         |
| NMC-800 | 88.63       | 6.41             | 4.96          | 1047                        |
| NMC-900 | 92.45       | 3.71             | 3.84          | 4382                        |
| NMC-1000| 93.63       | 3.16             | 3.21          | 2086                        |