**Supplementary Material**

Synthesis of Metal-Organic Framework Nanocrystals immobilized with 3D ﬂowerlike Cu-Bi layered double hydroxides for iodine efficient removal

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**FIG. S1:** XRD patterns of before and after ZIF-67 loaded on CuBi-CO3-LDH (CuBi-CO3-LDH(★), Cu4(OH)6CO3·H2O phase (▲) and Bi2(OH)6CO3·H2O phase (●) were

marked.)



**FIG. S2:** High resolution XPS spectra of Co 2p.



**FIG. S3:** High resolution XPS spectra of Cu 2p.



**FiG. S4:** N2 adsorption-desorption isotherms

**TABLE SⅠ:** The weight percentages of atoms in ZIF-67/ CuBi-CO3-LDH.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element | Cu | Bi | Co | N | O |
| Weight% | 20.4 | 36.9 | 1.6 | 16.8 | 24.3 |

**TABLE S****Ⅱ:** Iodine adsorption capacity of various absorbents in this work and references.

|  |  |  |
| --- | --- | --- |
| Adsorbent | Adsorption capacity(mg g-1) | References |
| MgAl-NO3-LDH | 10.1 | [1] |
| Modified silica magnetite nanoparticles | 141 | [2] |
| HOF-21 | 172.9 | [3] |
| n-CF | 28.1 | [4] |
| HCP-V2 | 97.1 | [5] |
| BN foam | 151.6 | [6] |
| Al-O-F | 49.0 | [7] |
| ZIF-67/CuBi-CO3-LDH | 180.2 | this work |



**FIG. S5:**  Photograph of the ZIF-67/ CuBi-CO3-LDH in the strong alkali and acid solution.

**Reference**

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