**Table S1.** Calculated Crystallite size and crystal micro strain for Y(OH)3 phase in the sample obtained at 2h.

|  |  |  |
| --- | --- | --- |
| **(hkl)** | **Crystallite Size (nm)** | **Strain** |
| **(100)** | 270 | 0.00151 |
| **(110)** | 270 | 0.00151 |
| **(101)** | 494 | 0.00151 |
| **(111)** | 360 | 0.00151 |
| **(200)** | 270 | 0.00151 |
| **(201)** | 340 | 0.00151 |
| **(120)** | 270 | 0.00151 |
| **(300)** | 270 | 0.00151 |