**Supplementary Information**

Preferential orientation effect. Grinding by using a mortar and pestle does not change the theta positions of the X-ray diffraction peaks but has a great impact on the relative intensities of the diffraction peaks.



Table SI-1 refined average parameter versus composition of the solid solution obtained by Spray-Drying with protocol 1.

|  |  |
| --- | --- |
| % NaBrO3 | a (Å) |
| 0 | 6,5707 |
| 5 | 6,5773 |
| 10 | 6,5837 |
| 15 | 6,5884 |
| 17,5 | 6,5926 |
| 20 | 6,5962 |
| 25 | 6,6019 |
| 30 | 6,6064 |
| 35 | 6,615 |
| 40 | 6,6147 |
| 50 | 6,6297 |
| 60 | 6,6374 |
| 70 | 6,6503 |
| 80 | 6,6725 |
| 90 | 6,685 |
| 100 | 6,6994 |