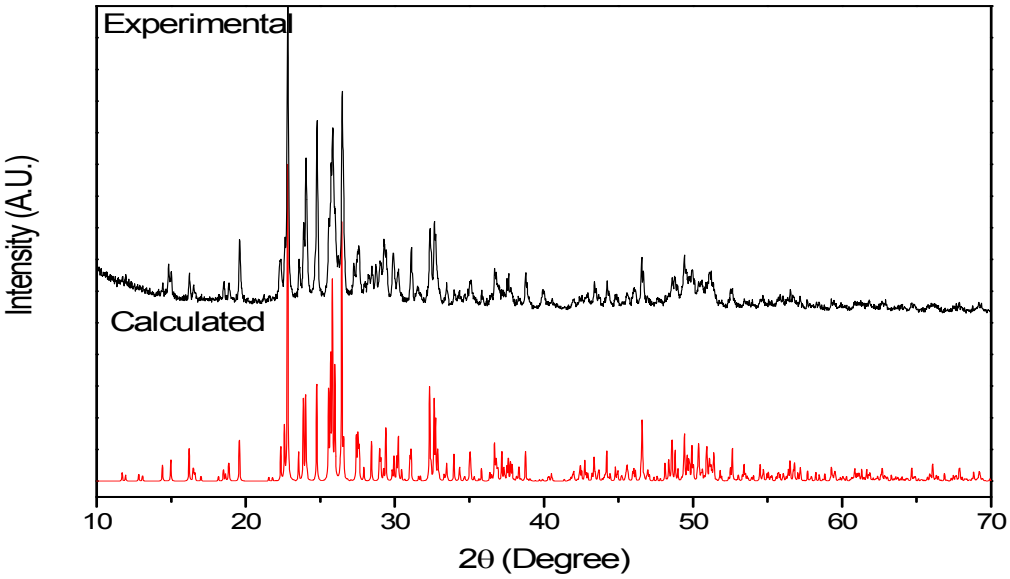
Electronic Supplementary Information (ESI) for:

# Dimensionality variations in new zirconium iodates: Hydrothermal syntheses, structure determinations, and characterizations of $BaZr(IO_3)_6$ and $K_2Zr(IO_3)_6$

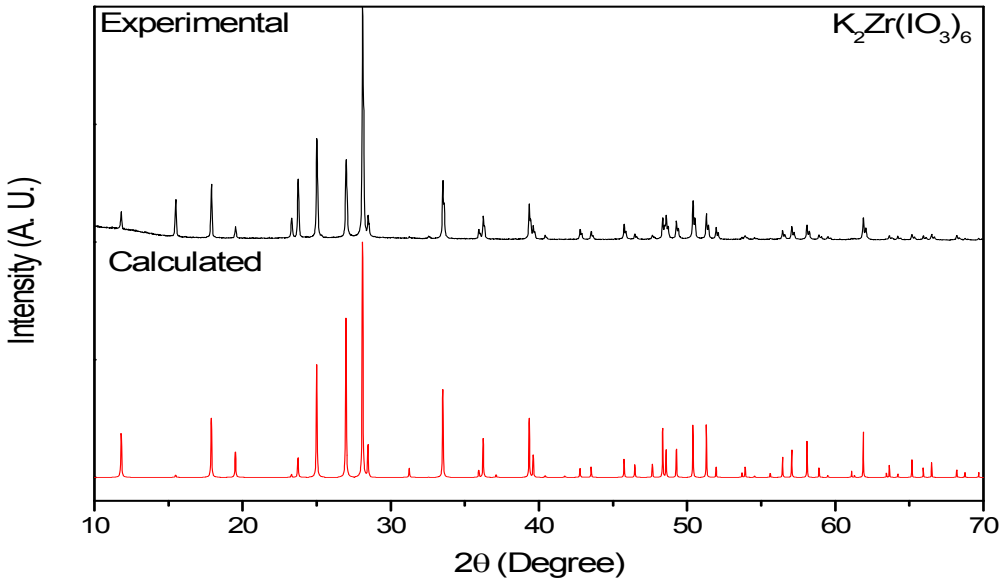
Hyun Sun Ahn, Dong Woo Lee, and Kang Min Ok*

Department of Chemistry, Chung-Ang University, 84 Heukseok-ro, Dongjak-gu, Seoul 156-756, Republic of Korea

S1. Experimental and calculated powder X-ray diffraction patterns for $BaZr(IO_3)_6$



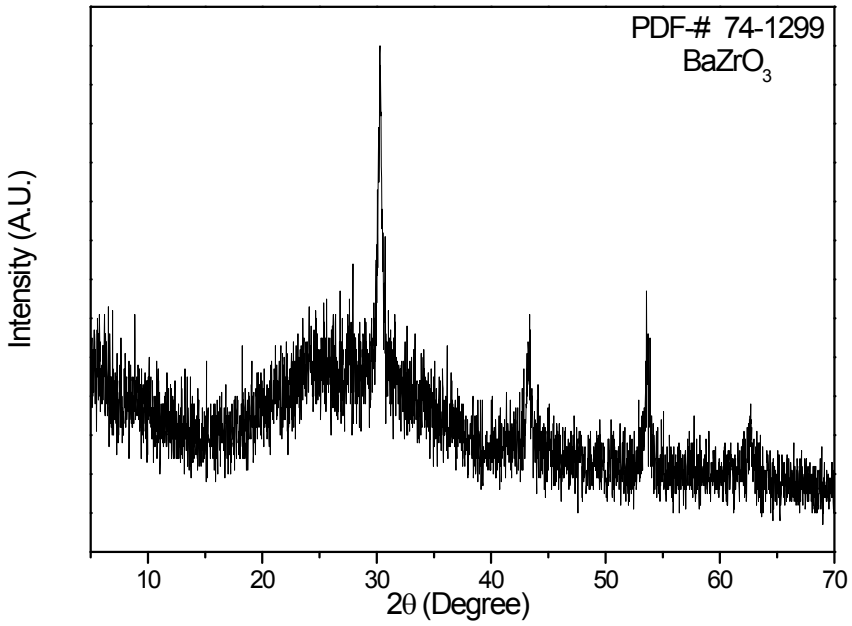

S2. Experimental and calculated powder X-ray diffraction patterns for $K_2Zr(IO_3)_6$



S3. Atomic positions and isotropic displacement parameters for $K_2Zr(IO_3)_6$

| Atom | *x* | *y* | *z* | $U_{iso}$(Å$^2$) |
|---|---|---|---|---|
| K(1) | 0 | 0 | 0.8312(7) | 0.033(3) |
| I(1) | 0.39452(14) | 0.38246(14) | 0.71894(16) | 0.028(3) |
| Zr(1) | 0.66667 | 0.33333 | 0.83333 | 0.035(2) |
| O(1) | 0.5532(10) | 0.3819(11) | 0.7208(8) | 0.029(5) |
| O(2) | 0.4484(10) | 0.5206(11) | 0.6227(8) | 0.027(5) |
| O(3) | 0.4272(11) | 0.4691(10) | 0.8566(9) | 0.042(5) |

S4. Powder XRD pattern for calcined product of $BaZr(IO_3)_6$




S5. Powder XRD pattern for calcined product of $K_2Zr(IO_3)_6$