



## Correction to: Revived BBFTO double perovskite with improved dielectric properties for some possible device applications

Lutu Sahoo<sup>1</sup>, B. N. Parida<sup>2,\*</sup>, Nimai C. Nayak<sup>3</sup>, and R. K. Parida<sup>1,\*</sup> 

<sup>1</sup> Department of Physics, Faculty of Engineering & Technology, Siksha O Anusandhan University (Deemed to be University), Khandagiri, Bhubaneswar 751030, India

<sup>2</sup> Department of Physics, Central Institute of Technology, Kokrajhar (Deemed to be University, MHRD, Govt. of India), BTC, Kokrajhar, Assam 783370, India

<sup>3</sup> Department of Chemistry, Faculty of Engineering & Technology, Siksha O Anusandhan University (Deemed to be University), Khandagiri, Bhubaneswar 751030, India

### Published online:

26 August 2023

© Springer Science+Business Media, LLC, part of Springer Nature, 2023

### Correction to:

J. Mater Sci: Mater Electron (2023) 34:1019  
<https://doi.org/10.1007/s10854-023-10434-6>

The original version of this article was published with few errors in the Rietveld refinement part of XRD profile. The investigated sample was identified with dual phase such as tetragonal (space group =  $P4mm$ ) and monoclinic (space group =  $P 121/C1$ ). The percentage of matching of tetragonal phase with experimental XRD spectra was found as 73.6% with lattice

parameters  $a = b = 4.004 \text{ \AA}$ ,  $c = 3.997 \text{ \AA}$ , while that of the monoclinic phase was 26.4%. The reliability parameters obtained through the Rietveld refinement are  $\chi^2 = 1.369$ ,  $R_{wp} (\%) = 7.701$ ,  $R_b (\%) = 6.072$ , and  $R_{exp} (\%) = 5.622$ . The corrected refined XRD profile using Rietveld refinement technique (MATCH Software) and the details of the parameters obtained through the refinement are displayed in Fig. 1, Tables 1, and 2, respectively.

These have been corrected by publishing this correction article.

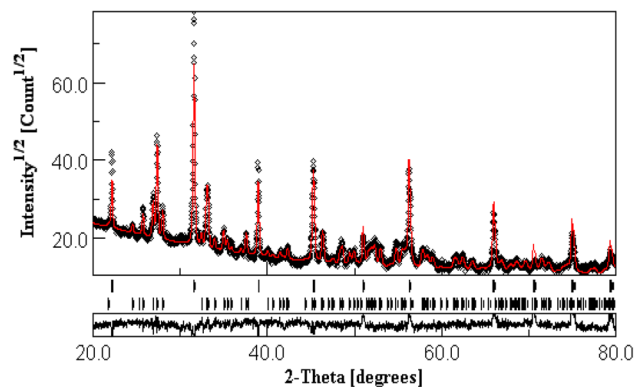
The original article can be found online at <https://doi.org/10.1007/s10854-023-10434-6>.

Address correspondence to E-mail: [bnparida@cit.ac.in](mailto:bnparida@cit.ac.in); [bichitra72@gmail.com](mailto:bichitra72@gmail.com); [rkparida65@gmail.com](mailto:rkparida65@gmail.com)

<https://doi.org/10.1007/s10854-023-11178-z>

**Table 1** The detailed parameters obtained through Rietveld refinement of the investigated sample

Index	Symmetry and space group	Lattice parameters	Atomic configuration				MATCH (%)	Reliability parameters
A	Tetragonal ( <i>P4mm</i> )	$a=4.004 \text{ \AA}$ $b=4.004 \text{ \AA}$ $c=3.997 \text{ \AA}$	Element	<i>X</i>	<i>Y</i>	<i>Z</i>	73.6	$\chi^2=1.369$ $R_{wp}(\%)=7.701$ $R_b(\%)=6.072$ $R_{exp}(\%)=5.622$
			$B_a$	0	0	-0.0185		
			$T_i$	0.5	0.5	0.4904		
			$O_1$	0.5	0.5	0.0135		
			$O_2$	0.5	0	0.4428		
B	Monoclinic ( <i>P 121/C1</i> )	$a=5.859 \text{ \AA}$ $b=8.164 \text{ \AA}$ $c=7.510 \text{ \AA}$ $\beta=67.06^\circ$	$B_i$	0.5139	0.1864	0.6412	26.4	
			Fe	0.0398	0.0412	0.2182		
			$O_1$	0.6977	0.3545	0.4015		
			$O_2$	0.7332	0.0101	0.1335		
			$O_3$	-0.0025	0.0768	0.4957		

**Fig. 1** The corrected XRD profile of the investigated sample**Table 2** Intensity profile of the investigated sample

Sl. No	$2\theta$ ( $^\circ$ )	$d$ ( $\text{\AA}$ )	$III_0$	Matched
1	21.03	4.22	15.24	
2	21.17	4.1928	14.47	
3	21.63	4.1043	17.02	B
4	21.82	4.0703	23.35	A
5	2.23	3.9949	223.13	A
6	22.53	3.9437	13.06	
7	24.58	3.6181	19.53	B
8	25.79	3.4511	62.77	B
9	26.94	3.3071	102.26	B
10	27.41	3.2507	310.86	B
11	28.04	3.1796	73.92	B
12	28.49	3.1305	14.49	
13	30.02	2.974	13.14	
14	30.23	2.9537	13.51	
15	31.39	2.8478	26.44	A

**Table 2** continued

Sl. No	$2\theta$ ( $^\circ$ )	$d$ ( $\text{\AA}$ )	$III_0$	Matched
16	31.64	2.8256	1000	A
17	31.77	2.8146	217.29	
18	32.08	2.7878	18.24	
19	32.43	2.7587	19.38	B
20	32.61	2.7439	19.74	
21	33.05	2.7085	68.11	B
22	33.23	2.6942	78.74	B
23	33.93	2.6396	13.02	B
24	35.06	2.5571	41.52	B
25	35.31	2.5399	14.82	
26	35.45	2.53	20.93	B
27	35.9	2.4995	20.16	B
28	37.02	2.4264	13.29	B
29	37.61	2.3898	38.16	B
30	38.99	2.3081	216.89	A
31	39.13	2.3004	39.73	
32	41.53	2.1728	13.4	B
33	41.99	2.1502	14.91	B
34	42.37	2.1318	22.6	B
35	45.15	2.0067	31.11	A, B
36	45.33	1.9989	252.1	
37	45.43	1.995	148.61	A, B
38	46.35	1.9575	19.67	B
39	46.47	1.9527	15.46	
40	48.39	1.8795	24.39	B
41	48.61	1.8715	36.35	B
42	49.49	1.8403	17.78	B
43	49.95	1.8243	16.18	B
44	50.06	1.8207	16.49	B
45	51.72	1.7659	26.82	B

**Table 2** continued

Sl. No	$2\theta$ (°)	$d$ (Å)	$I/I_0$	Matched
46	51.96	1.7583	27.61	B
47	52.17	1.752	26.63	B
48	52.32	1.7471	39.13	B
49	53.03	1.7256	26.2	B
50	54.83	1.673	34.41	B
51	55.51	1.6541	29.46	B
52	55.69	1.6493	24.5	
53	55.86	1.6445	21.83	A, B
54	56.3	1.6326	224.03	A
55	56.47	1.6283	94.63	B
56	57.87	1.592	21.47	B
57	58.26	1.5825	13.55	B
58	58.36	1.5799	18.4	B
59	58.98	1.5647	13.63	B
60	61.52	1.5061	13.53	B
61	61.64	1.5036	14.93	
62	61.76	1.5008	14.17	B
63	62.45	1.4859	19.5	B
64	62.6	1.4828	13.74	B
65	66	1.4143	101.02	A
66	66.15	1.4114	64.87	A, B
67	71.51	1.3183	14.03	B
68	75.02	1.265	58.51	B
69	75.13	1.2635	25.54	A
70	79.39	1.2061	13.76	B

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.