Frontiers of Physics
https://doi.org/10.1007/s11467-021-1050-4
Front. Phys. 16(5), 53001 (2021)

VIEWPOINT

Supplement to the paper "A collection of 505 papers on false or unconfirmed ferroelectric properties in single crystals, ceramics and polymers [*Front. Phys.* 14(6), 63301 (2019)]"

Zbigniew Tylczyński

Faculty of Physics, Adam Mickiewicz University, Uniwersytetu Poznańskiego 2, Poznań, Poland
E-mail: †zbigtyl@amu.edu.pl
Received October 3, 2020; accepted November 19, 2020

This supplement contains 222 (angel number) further papers on false or unconfirmed ferroelectric properties in single crystals, ceramics and polymers and only concerns bulk materials. Thus, the number of such papers has reached huge value 727. The papers marked in red have drastically broken the principles of symmetry because they reported the existence of ferroelectricity in crystals without the polar axis.

Keywords ferroelectricity, hysteresis loop, single crystals, multiferroic, polymers

Part I

Table 1 False or unconfirmed ferroelectric properties in single crystals.

No.	Substance	Symmetry	Shape of P–E loop	Ref.
59	erbium tartrate hexahydrate	tetragonal	pointed loop	[I.68]
60	$Cu_{1-x}Mn_xO$ ($x = 0$, 0.03, 0.05, 0.07)	monoclinic	elliptical loops	[I.69]
61	diisopropylammonium bromide	$P2_12_12_1$	pointed loop	[I.70]
62	L-arginine 4-nitrophenolate 4-nitrophenol dihydrate	$P2_1$	pointed loop	[I.71]
63	erbium tartrate dihydrate	tetragonal	pointed loop	[I.72]
64	ammonium tetroxalate dehydrate (L-asparagine doped)	triclinic	pointed loops	[I.73]
65	glycine-phthalic acid	Pbca	elliptical loop	[I.74]
66	$(CH_3NH_3)_2CuCl_4$	$P2_1/a$	series of elliptical loops	[I.75]
67	rubidium titanyl phosphate	$Pna2_1$	pointed loop	[I.76]

Part II

Table 2 False or unconfirmed ferroelectric properties in single crystals.

No.	Substance	Symmetry	Shape of P–E loop	Ref.
297	$Li_{1-x}Ce_xFeO_3$ ($x = 0.00$, 0.03, 0.06, 0.09, 0.12)	Pnam	elliptical loops	[II.304]
298	$LaFeO_3$ $La_{0.9}(Sm/Nd)_{0.1}FeO_3$	Pbnm Pbnm	pointed loop pointed loops	[II.305]
299	$HoMn_{1-x}Fe_xO_3$ ($x = 0$, 0.05, 0.1)	coexistence $P6_3cm$ and Pnma	series of pointed loops	[II.306]
300	$Lu_{1-x}La_xFeO_3$ ($x = 0$, 0.05, 0.1, 0.15, 0.2, 0.25)	coexistence $P6_3cm$ and Pnma	narrow pointed loops	[II.307]
301	$(1-x)BiFeO_3 - xBaTiO_3$ ($x = 0$, 0.5, 0.10, 0.15)	coexistence rhombohedral and cubic	pointed loops	[II.308]
302	$Bi_{0.95}Dy_{0.05}Fe_{0.95}M_{0.05}O_3$ (M = Mn, Co)	rhombohedral	pointed loops	[II.309]
303	$Bi_{1-x-y}Eu_xCa_yFeO_3$ ($x = 0$, 0.05; $y = 0$, 0.05, 0.10)	rhombohedral	pointed loops	[II.310]
304	Ba_2TiZrO_6	$R\bar{3}$	series of pointed loops	[II.311]

*This article can also be found at http://journal.hep.com.cn/fop/EN/10.1007/s11467-021-1050-4.

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
305	$x\mathrm{CoFe_2O_4}/(1-x)\mathrm{BaTiO_3}$ ($x = 0.1, 0.2, 0.3, 0.4, 0.5$)	tetragonal perovskite structure	pointed loops	[II.312]
306	$\mathrm{Bi_{1-x}Ba_xFeO_3}$ ($x = 0.00, 0.05, 0.10, 0.15, 0.20, 0.25$)	R3c	elliptical loops	[II.313]
307	$\mathrm{Pb(Fe_{1/2}Nb_{1/2})O_3}$	Cm	series of pointed loops	[II.314]
308	$\mathrm{Pb(Fe_{0.634}W_{0.266}Nb_{0.1})O_3}$	Rm3m	pointed loop	[II.315]
309	$\mathrm{Bi_{1-x}Gd_xFeO_3}$ ($x = 0, 0.05, 0.1, 0.15$)	rhombohedral	narrow pointed loops	[II.316]
310	$(1-x)\mathrm{Bi_{0.9}Pr_{0.1}FeO_3}$–$x\mathrm{Ni_{0.5}Co_{0.5}Fe_2O_4}$ ($x = 0, 0.1, 0.2, 0.3, 1.0$)	coexistence perovskite and spinel structures	elliptical loops	[II.317]
311	$\mathrm{BiFe_{1-x}Mo_xO_3}$ ($x = 0, 0.6$)	coexistence R3c and C2/m	series of pointed loops	[II.318]
312	$\mathrm{CoFe_2O_4/BaTiO_3}$	coexistence tetragonal and cubic	pointed loops	[II.319]
313	$\mathrm{La_{0.53}Ca_{0.26}Ba_{0.21}Mn_{0.77}Ti_{0.21}Zr_{0.02}O_3}$	P4mm	series of pointed loops	[II.320]
314	$\mathrm{BiFe_{1-x}Mn_xO_3}$ ($x = 0.00, 0.10, 0.20, 0.30$)	R3c	pointed loops	[II.321]
315	$\mathrm{Bi_{0.95}Fe_{0.95}Mn_{0.05}O_3}$	Pm3m	pointed loop	[II.322]
316	$\mathrm{Zn_{1-x}Mg_xO}$ ($x = 0.00, 0.05, 0.10, 0.15, 0.20$)	P6/mmm	elliptical loops	[II.323]
317	$\mathrm{Bi_{1-x}Nd_xFe_{0.975}Zn_{0.025}O_3}$ ($x = 0.025, 0.05, 0.075, 0.10$)	R3c	narrow pointed loops	[II.324]
318	$\mathrm{BiFeO_3}$	R3c	pointed loops	[II.325]
319	$\mathrm{Ba_5CaTi_2Nb_8O_{30}}$	P4bm	pointed loop	[II.326]
320	$\mathrm{Ba_5NdTi_3V_7O_{30}}$	orthorhombic	pointed loop	[II.327]
321	$0.7\mathrm{Bi_{1-x}Nd_xFeO_3}$–$0.3\mathrm{PbTiO_3}$ ($x = 0, 0.05, 0.10$)	coexistence R3c and P4mm	pointed loops	[II.328]
322	$(1-x)\mathrm{BiFeO_3}$–$x\mathrm{Al_2O_3}$ ($x = 0.00, 0.02, 0.04, 0.06, 0.08, 0.10$)	R3c	series of pointed loops	[II.329]
323	$\mathrm{BiFe_{1-x}Mn_xO_3}$ ($x = 0.00, 0.01, 0.03, 0.05$)	R3c	series of elliptical loops	[II.330]
324	$\mathrm{Ni_{1-x}Zn_xFe_2O_4/BaTiO_3}$ ($x = 0.3, 0.4, 0.5, 0.6, 0.7$)	coexistence rhombohedral and orthorhombic	pointed loops	[II.331]
325	$(1-x)\mathrm{Co_{0.8}Cu_{0.2}Fe_2O_4}$–$x\mathrm{Ba_{0.6}Sr_{0.4}TiO_3}$ ($x = 0, 0.4, 0.45, 0.475, 0.5, 0.525, 0.55, 1$)	tetragonal perovskite	pointed loops	[II.332]
326	$\mathrm{Li_2Pb_2Y_2W_2Ti_4V_4O_{30}}$	orthorhombic	pointed loop	[II.333]
327	$\mathrm{(BiFeO_3)_{1-x}(PbTiO_3)_x}$ ($x = 0, 0.1, 0.2, 0.3, 0.4$)	coexistence rhombohedral and tetragonal	narrow pointed loops	[II.334]
328	$\mathrm{SrBi_2Nb_{2-x}Fe_xO_9}$ ($x = 0, 0.1, 0.2, 0.3, 0.4, 1$)	$\mathrm{A2_1am}$	pointed loops	[II.335]
329	$(1-x)\mathrm{K_{0.5}Na_{0.5}NbO_3}$–$x\mathrm{BaFe_{12}O_{19}}$ ($x = 30, 40, 50$ wt%)	coexistence Amm2 and $\mathrm{P6_3/mmc}$	elliptical loops	[II.336]
330	$\mathrm{Ba_4SrRTi_3V_7O_{30}}$ (R = Sm, Dy)	orthorhombic	narrow pointed loops	[II.337]
331	$\mathrm{Na_{1/2}Y_{1/2}TiO_3}$	orthorhombic	pointed loop	[II.338]
332	$\mathrm{Ba_3Sr_2DyTi_3V_7O_{30}}$	orthorhombic	narrow pointed loop	[II.339]
333	$\mathrm{Bi_8Fe_6Ti_3O_{27}}$	orthorhombic	narrow pointed loop	[II.340]
334	$\mathrm{KCa_2Nb_5O_{15}}$	orthorhombic	narrow pointed loop	[II.341]
335	$0.675\mathrm{BiFe_{1-x}Cr_xO_3}$–$0.325\mathrm{PbTiO_3}$ ($x = 0, 0.01, 0.025, 0.05$)	coexistence rhombohedral and tetragonal phases	pointed loops	[II.342]
336	$\mathrm{Bi_{1-x}Nd_xFeO_3}$ ($x = 0.0, 0.175, 0.20$)	coexistence R3c and P1	elliptical loops	[II.343]
337	$\mathrm{BaTi_2O_5}$+ 0.2%wt. $\mathrm{MnO_2}$	monoclinic	pointed loop	[II.344]
338	$\mathrm{Bi_{1-x}Dy_xFeO_3}$ ($x = 0.05, 0.10$)	R3c	series of pointed loops	[II.345]
339	$\mathrm{BiFe_{0.95}Co_{0.05}O_3}$ $\mathrm{Bi_{0.95}La_{0.05}Fe_{0.95}Co_{0.05}O_3}$ $\mathrm{Bi_{0.95}Pr_{0.05}Fe_{0.95}Co_{0.05}O_3}$	R3c R3c R3c	narrow pointed loops narrow pointed loops pointed loops	[II.346]
340	$\mathrm{LaFeO_3}$	orthorhombic	series of elliptical loops	[II.347]
341	$\mathrm{BaZr_{1-x}Ti_xO_3}$ ($x = 0.1, 0.2, 0.3, 0.4$)	tetragonal perovskite	elliptical loops	[II.348]
342	$\mathrm{Mn_{0.5}Mg_{0.5}Fe_2O_4/Ba_{0.8}Sr_{0.2}Ti_{0.9}Zr_{0.1}O_3}$ (molar ratio 3:1, 2:1, 1:1, 1:2, 1:3)	coexisting P4/mmm and Fd3m	series of pointed loops	[II.349]
343	$(1-x)\mathrm{Bi_{0.85}Nd_{0.15}Fe_{0.98}Mn_{0.02}O_3}$–$x\mathrm{BaTiO_3}$ ($x = 0, 0.275, 0.3, 0.325$)	R3c	pointed loops	[II.350]
344	$x\mathrm{BiFeO_3}$–$(1-x)\mathrm{BaTiO_3}$ ($x = 1.0, 0.9, 0.8, 0.7$)	rhombohedral	pointed loops	[II.351]
345	$(1-x)(0.65\mathrm{BiFeO_3}$–$0.35\mathrm{BaTiO_3})$–$x\mathrm{Nb_2O_5}$ ($x = 0, 1, 3, 5$ mol%)	rhombohedral	pointed loops	[II.352]
346	$\mathrm{Bi_{1-x}La_xFeO_3}$ ($x = 0, 0.1$) $\mathrm{Bi_{1-x}La_xFeO_3}$ ($x = 0.2$) $\mathrm{Bi_{1-x}La_xFeO_3}$ ($x = 0.3$)	R3c C222 P4mm	series of elliptical loops series of elliptical loops series of pointed loops	[II.353]

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
347	$Bi_{1-x}Er_xFeO_3$ ($x = 0.0, 0.1, 0.2, 0.3$) $Bi_{1-x}La_xFeO_3$ E ($x = 0.0, 0.1, 0.2, 0.3$)	coexistence R3c and tetragonal coexistence R3c and orthorhombic	elliptical loops pointed loops	[II.354]
348	$Bi_{1-x}Ba_xFeO_3$ ($x = 0, 0.2$)	R3c	elliptical loops	[II.355]
349	$Bi_{1-x}La_xFeO_3$ (x =0, 0.05, 0.1, 0.15, 0.2, 0.25)	R3c	narrow pointed loops	[II.356]
350	$CoCr_2O_4$	Fd3m	series of pointed loops	[II.357]
351	$Pb(Fe_{0.6}Nb_{0.2}W_{0.2})O_3$	Pm3m	series of pointed loops	[II.358]
352	$(1-x)BaTiO_3$–$xNiFe_2O_4$ ($x = 0.25, 0.75$)	coexistence 4mm and Fd3m	pointed loops	[II.359]
353	$Bi_2Fe_4O_9$	Pbam	pointed loop	[II.360]
354	$Bi_{1-x}La_xFeO_3$ ($x = 0.05, 0.10, 0.15, 0.2$)	R3c	series of pointed loops	[II.361]
355	$Bi_{1-x}Ba_xFeO_3$ ($x = 0.1, 0.2, 0.3$)	R3c	elliptical loops	[II.362]
356	$BiFeO_3$ $Bi_{0.725}Pb_{0.175}La_{0.1}FeO_3$	R3c Pm3m	pointed loops pointed loops	[II.363]
357	$Bi_{0.9}Ba_{0.1}FeO_3$	R3c	series of pointed loops	[II.364]
358	$YIn_{0.9}Cr_{0.1}O_3$ ($x = 0.1, 0.3$) $YIn_{0.7}Cr_{0.3}O_3$	$P6_3cm$ coexistence hexagonal and orthorhombic	series of elliptical loops series of elliptical loops	[II.365]
359	$(1-x)BiFeO_3$–$xZnFe_2O_4$ (x = 10, 20, 30, 40 wt%)	coexistence R3c and Fd3m	series of pointed loops	[II.366]
360	$BiFeO_3$ $Bi_{0.95}Mn_{0.005}FeO_3$ $BiFeO_3-Ni_{0.5}Zn_{0.5}Fe_2O_4$	R3c R3c coexistence R3c, Pbam and $P2_1/m$	pointed loops pointed loops pointed loop	[II.367]
361	$[(GdMnO_3)_{0.7}(CoFe_2O_4)_{0.3}]_{0.5}[TiO_2]_{0.5}$	$I4_1md$	elliptical loop	[II.368]
362	$(1-x)Bi_{0.85}Nd_{0.15}Fe_{0.98}Mn_{0.02}O_3$–$xBaTiO_3$ ($x = 0, 0.275, 0.3, 0.325$)	R3c	pointed loops	[II.369]
363	$0.7[(1-x)BiFeO_3$–$xBa_{0.8}Ca_{0.2}TiO_3]-0.3Ba_{0.8}Ca_{0.2}TiO_3$ ($x = 0, 0.1, 0.2, 0.3$)	coexistence R3c and P4/mmm	pointed loops	[II.370]
364	$(0.5)Bi_{0.70}A_{0.30}FeO_3$–$(0.5)PbTi_{0.5}Fe_{0.5}O_3$ (A = Sr, Pb, Ba)	coexistence R3c, P4mm and Pm3m	elliptical loops	[II.371]
365	$(1-x)Bi(Ni_{1/2}Ti_{1/2})O_3-PbTiO_3$ /$xNi_{0.6}Zn_{0.4}Fe_2O_4$ (x = 0, 0.1, 0.3, 0.5, 0.7, 0/9)	coexistence P4mm and Pd3m	pointed loops	[II.372]
366	$BiFeO_3$	R3c	elliptical loop	[II.373]
367	$Bi_{1-x}Sr_xFe_{1-y}Co_yO_3$ ($x, y = 0, 0.05$)	coexistence R3c and Pm3m	pointed loops	[II.374]
368	$Bi_{0.86}La_{0.08}Sm_{0.14}Fe_{1-x}Ti_xO_3$	rhombohedral	elliptical loops	[II.375]
369	$Bi_{1-x}Pr_xFeO_3$ ($x = 0.0, 0.05, 0.10, 0.15$) $Bi_{1-x}Pr_xFeO_3$ ($x = 0.20$)	coexistence R3c and Pnma Pnma	elliptical loops elliptical loop	[II.376]
370	$0.9BaTi_{1-2x}Nb_xGd_xO_3$–$0.1Li_{0.5}Fe_{2.5}O_4$ ($x = 0, 0.05, 0.1$)	tetragonal	narrow pointed loops	[II.377]
371	$CeFeO_3$	Pbnm	series of pointed loops	[II.378]
372	$0.5BiFeO_3$–$0.5Bi_{0.5}K_{0.5}TiO_3$	coexistence Pm3m and tetragonal	pointed loop	[II.379]
373	$Bi_{0.98}Ho_{0.02}Fe_{1-x}Cr_xO_3$ ($x = 0.01, 0.02, 0.03, 0.04$)	rhombohedral	pointed loops	[II.380]
374	$GdFeO_3$	Pbnm	series of narrow pointed loops	[II.381]
375	$0.8PbFe_{0.5}Nb_{0.5}O_3-0.2BiFeO_3$	Cm	pointed loop	[II.382]
376	$xPbFe_{12}O_{19}$–$(1-x)PbTiO_3$ ($x = 0, 0.4, 0.6, 1$)	coexistence tetragonal and hexagonal	elliptical loops	[II.383]
377	$BiFeO_3$, $Bi_{0.95}Mn_{0.05}FeO_3$	R3c	pointed loops	[II.384]
378	$Bi_{0.95}Er_{0.05}Fe_{0.98}TM_{0.02}O_3$ (TM = Nb, Mn, Mo)	R3c	series of pointed loops	[II.385]
379	$YMnO_3$	$P6_3cm$	pointed loop	[II.386]
380	$BiFeO_3$	R3c	elliptical loop	[II.387]
381	$Na_{0.5}Bi_{0.5}TiO_3$ $65Na_{0.5}Bi_{0.5}TiO_3-35CoFe_2O_4$	perovskite coexistence perovskite and spinel	elliptical loop elliptical loop	[II.388]
382	$(1-x)Ba_{0.85}Ca_{0.15}Ti_{0.90}Zr0_{0.10}O_3$–$xCoFe_2O_4$ ($x = 0.1, 0.3, 0.5$)	coexistence tetragonal perovskite and spinel	elliptical loops	[II.389]
383	$(PbTiO_3)_{0.5}$–$(Co_{0.5}Zn_{0.5}Fe_2O_4)_{0.5}$	coexistence tetragonal perovskite and spinel	elliptical loop	[II.390]

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
384	$BaZrNb_2O_8$	P2/m	pointed loop	[II.391]
385	$Bi_{1-x}Tb_xFeO_3$ ($x = 0, 0.10$)	orthorhombic	elliptical loops	[II.392]
386	$Bi_{1-x}La_xFe_{1-x}Ti_xO_3$ ($x = 0.0, 0.03, 0.06$)	R3c	pointed loops	[II.393]
387	$x$$Ba_{0.7}Ca_{0.3}$–$(1-x)BaFe_{0.2}Ti_{0.3}$ ($x = 0, 0.10, 0.15, 0, 20$)	coexistence hexagonal and tetragonal	pointed loops	[II.394]
388	$Bi_{1-x}Eu_xFe_{0.975}Mn_{0.025}O_3$ ($x = 0.025, 0.05, 0.075, 0.1$)	coexistence R3c and Pm3m	narrow pointed loops	[II.395]
389	$Bi_{0.8}Ba_{0.2}Fe_{1-x}Ta_xO_3$ ($x = 0, 0.05, 0.10, 0.15$)	coexistence R3c and P4mm	pointed loops	[II.396]
390	$YMnO_3$	$P6_3cm$	elliptical loops	[II.397]
391	$BiFe_{1-x}Cr_xO_3$ ($x = 0.00, 0, 01, 0.03, 0.05, 0.07$)	R3c	pointed loops	[II.398]
392	$(Bi_{1-x}Ca_x)(Fe_{1-x}Ti_x)O_3$ ($x = 0.1, 0.15, 0.2$)	R3c	pointed loops	[II.399]
393	$(1-x)Ba_{0.70}Ca_{0.30}TiO_3$–$x$$BiFeO_3$ ($x = 0.12$–0.90)	coexistence orthorhombic and tetragonal	pointed loops	[II.400]
394	$Bi_{0.87}La_{0.05}Tb_{0.08}FeO_3$	rhombohedral	pointed loops	[II.401]
395	$LuFeCuO_4$	$R\bar{3}m$	pointed loop	[II.402]
396	$Ba_5NdFe_{1.5}Nb_{8.5}O_{30}$	P4bm	pointed loop	[II.403]
397	$(Bi_{0.5}K_{0.5})(Fe_{0.5}Nb_{0.5})O_3$	rhombohedral	series of elliptical loops	[II.404]
398	$SrFe_{11.9}In_{0.1}O_{19}$	$P6_3mc$	series of pointed loops	[II.405]
399	$SrFe_{12}O_{19}$	hexagonal	series of elliptical loops	[II.406]
400	$SrFe_{12}O_{19}$	hexagonal	elliptical loop	[II.407]
401	$BiFeO_3$–$Ni_{0.5}Co_{0.5-x}Zn_xFe_2O_4$ ($x = 0.05, 0.10, 0.15, 0.20, 0.25, 0.30$)	coexistence perovskite and spinel	pointed loops	[II.408]
402	$0.9BaTi_{0.95}Sn_{0.05}O_3$–$0.1Ni_{0.8}Zn_{0.2}Fe_2O_4$	coexistence Fd3m and P4mm	narrow pointed loops	[II.409]
403	$Pb_{0.4}Bi_{2.1}La_{0.5}Nb_{1.7}Mn_{0.3}O_9$	$A2_1am$	series of pointed loops	[II.410]
404	$x$$Li_{0.1}Ni_{0.3}Cu_{0.1}Zn_{0.4}Fe_{2.1}O_4$ –$(1-x)Ba_{0.95}$ $Sm_{0.05}Ti_{0.95}DyO_3$ ($x = 0.00, 0.10, 0.20, 0.30, 0.40, 0.50, 0.60, 1.00$)	tetragonal	pointed loops	[II.411]
405	$CoTiO_3$ $BiCo_{0.5}Ti_{0.5}O_3$ $0.5BiCo_{0.5}Ti_{0.5}O_3$–$0.5PbTiO_3$	rhombohedral orthorhombic tetragonal	elliptical loop pointed loop pointed loop	[II.412]
406	Bi_2YZrVO_9	orthorhombic	elliptical loop	[II.413]
407	$Sr_{0.5}Ba_{0.5}Ti_{1-x}Fe_xO_3$ ($x = 0.00, 0.05, 0.10, 0.15, 0.20, 0.25$)	coexistence cubic and tetragonal	elliptical loops	[II.414]
408	$BiFeO_3$ $Bi_{0.9}Gd_{0.1}FeO_3$ $Bi_{0.9}Gd_{0.1}Fe_{0.9}Co_{0.1}O_3$	R3c coexistence R3c and Pnam Pnam	series of pointed loops series of pointed loops series of pointed loops	[II.415]
409	$Bi_{0.5}K_{0.5}Ti_{0.80}Mn_{0.20}O_3$	P4bm	elliptical loop	[II.416]
410	$BiFe_{1-x}Zn_xO_3$ ($x = 0.0, 0.01, 0.03, 0.05, 0.08$)	R3c	elliptical loops	[II.417]
411	$Bi_2Fe_4O_9$	Pbam	narrow pointed loops	[II.418]
412	$CaCu_3Ti_4O_{12}$	Im3	narrow pointed loops	[II.419]
413	$Bi_{0.875}Eu_{0.125}FeO_3$ $Bi_{0.875}Eu_{0.125}Fe_{1-y}Ti_yO_3$ ($y = 0.05, 0.10, 0.15$) $Bi_{0.875}Eu_{0.125}Fe_{0.98}Zr_{0.02}O_{3-\delta}$ $Bi_{0.875}Eu_{0.125}Fe_{0.98}W_{0.02}O_{3-\delta}$ $Bi_{0.875}Eu_{0.125}Fe_{0.98}V_{0.02}O_{3-\delta}$	coexistence R3c and Pbnm coexistence R3c and Pm3m coexistence R3c and Pm3m coexistence R3c and Pbnm coexistence R3c and Pbnm	pointed loops	[II.420]
414	$0.4(Bi_{0.5}K_{0.5})TiO_{1-x}$–$0.6BiFe_{1-x}Nb_xO_3$ ($x = 0.00, 0.01, 0.03$)	R3m	series of narrow pointed loops	[II.421]
415	$Ba_{0.1}Bi_{0.9-x}Y_xFeO$ ($x = 0.0, 0.1, 0.2$)	R3c	narrow pointed loops	[II.422]
416	$0.67BiFeO_3$–$0.33PbTiO_3$	coexistence orthorhombic, tetragonal and rhombohedral	narrow pointed loop	[II.423]
417	$Bi_{0.7}La_{0.3}FeO_3$	$Pn2_1a$	narrow pointed loop	[II.424]
418	$Ba_5BiNiNb_9O_{30}$	tetragonal	narrow pointed loops	[II.425]
419	$(1-x)Bi_{0.9}La_{0.1}Fe_{0.9}Mn_{0.1}O_3$–$x$$MnFe_2O_4$ ($x = 0.00, 0.30, 0.50, 0.70$)	rhombohedral	pointed loops	[II.426]
420	$Bi_{1-x}Sm_xFeO_3$ ($x = 0.05, 0.10, 0.15$)	coexistence R3c and Pbam	series of narrow pointed loops	[II.427]
421	$Bi_{1-x}Sm_xFeO_3$ ($x = 0, 0.01, 0.05, 0.10$)	R3c	pointed loops	[II.428]

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
422	$(BiFeO_3)_{1-x}(PbTiO_3)_x$ ($x = 0, 0.1, 0.2, 0.3, 0.4$)	coexistence rhombohedral and tetragonal	pointed loops	[II.429]
423	$Bi_{0.8}Ba_{0.2}Fe_{1-x}Nb_xO_3$ ($x = 0, 0.015, 0.025$)	rhombohedral	series of pointed loops	[II.430]
424	$BiFeO_3$	rhombohedral	pointed loop	[II.431]
425	$Bi_{0.95}Yb_{0.05}Fe_{0.98}TM_{0.02}O_3$ (TM = Nb, Mn, Mo)	R3c	pointed loops	[II.432]
426	$0.7Bi_{1-x}Er_xFeO_3-0.3Bi_{0.5}Na_{0.5}TiO_3$ ($x = 0, 0.025, 0.05, 0.075$)	R3c, P4bm for x =0.075	pointed loops	[II.433]
427	$Bi_{1-x}Zr_xFe_{0.98}Cu_{0.02}O_3$ (x = 1%, 2%, 3%, 4%, 5%)	R3c	series of elliptical loops	[II.434]
428	$(1-x)(0.7BiFeO_3-0.3Bi_{0.5}Na_{0.5}TiO_3)$–$xCoFe_2O_4$ ($x = 0.1, 0.2, 0.3, 0.4$)	coexistence perovskite and spinel	pointed loops	[II.435]
429	$Ba_5RTi_3Nb_7O_{30}$ (R = La, Nd, Sm, Eu, Dy)	tetragonal	pointed loops	[II.436]
430	$Bi_{1-x}Sm_xFeO_3$ ($x = 0.00, 0.05, 0.10, 0.15$)	R3c	pointed loops	[II.437]
431	$Bi_{1-x}Ca_xFeO_3$ ($x = 0.0, 0.1, 0.3, 0.4$)	R3c	narrow elliptical loops	[II.438]
432	$Bi_{1-x}Ba_xFeO_3$ ($x = 0.15, 0.25$)	rhombohedral	series of pointed loops	[II.439]
433	$Bi_{1-x}Ca_xFeO_3$ (x = 0%, 10%)	R3c, P1 for 10%	series of pointed loops	[II.440]
434	$BiFeO_3$	R3c	pointed loops	[II.441]
435	$Bi_{1-x}Sm_xFeO_3$ ($x = 0, 0.01, 0.05, 0.10$)	R3c	pointed loops	[II.442]
436	$(1-x)[Bi_{0.5}Na_{0.5}TiO_3-0.07BaTiO_3]$–$xNi_{0.3}Cu_{0.08}Zn_{0.62}Fe_2O_4$ ($x = 0.1, 0.2, 0.3, 0.4, 0.5$)	coexistence cubic and monoclinic	pointed loops	[II.443]
437	$BiFeO_3$–xBBZ (x = 0.0, 0.5, 0.1, 1.5, 2.0 wt%) BBZ = Bi_2O_3–B_2O_3–ZnO glass	R3c	pointed loops	[II.444]
438	$Ba_4SmFe_{0.5}Nb_{9.5}O_{30}$	P4bm	narrow pointed loop	[II.445]
439	$Bi_{1-x}Y_xFeO_3$ (x =0.0, 0.1, 0.15, 0.2)	rhombohedral	elliptical loops	[II.446]
440	$Bi_{0.9}Sm_{0.10}Fe_{0.95}Co_{0.05}O_3$	rhombohedral	pointed loop	[II.447]
441	$BiLa_2TiVO_9$	orthorhombic	series of elliptical loops	[II.448]
442	$0.2Ni_{0.5}Zn_{0.5}Fe_2O_4$–$0.8BaTiO_3$	coexistence spinel and tetragonal	series of pointed loops	[II.449]
443	$Bi_2SmTiVO_9$	orthorhombic	elliptical loop	[II.450]
444	$Bi_2NdTiVO_9$	orthorhombic	series of pointed loops	[II.451]
445	$Dy_3Fe_{5-x}Al_xO_{12}$ ($x = 0, 0.1, 0.2, 0.3, 0.4, 0.5$)	coexistence Ia3d and R3c	elliptical loops	[II.452]
446	$La_{0.9}(Sm/Nd)_{0.1}FeO_3$	Pbnm	pointed loops	[II.453]
447	$(1-x)BiFeO_3$–$x(SrTiO_3-Bi_{0.5}Na_{0.5}TiO_3)$ (x = 0, 0, 1, 0.2, 0.3, 0.4, 0.5)	rhombohedral and pseudocubic	narrow pointed loops	[II.454]
448	$Bi_{0.5}Na_{0.5}TiO_3$ $CaCu_3Ti_4O_{12}$ $0.5Bi_{0.5}Na_{0.5}TiO_3$–$0.5CaCu_3Ti_4O_{12}$	symmetry was not presented symmetry was not presented symmetry was not presented	elliptical loops elliptical loops elliptical loops	[II.455]
449	$Bi_{1-x}La_xFeO_3$ ($x = 0, 0.05, 0.2$)	rhombohedral	series of pointed loops	[II.456]
450	$Na_{0.5}Bi_{0.5}TiO_3$ $50Na_{0.5}Bi_{0.5}TiO_3-50CoFe_2O_4$	rhombohedral rhombohedral perovskite and cubic spinel	elliptical loop pointed loop	[II.457]
451	$BiFeO_3$	rhombohedral	series of pointed loops	[II.458]
452	$Bi_{1-x}Pr_xFeCo_{0.05}O_3$ ($x = 0, 0.05, 0.1, 0.15$)	coexistence rhombohedral and orthorhombic	pointed loops	[II.459]
453	$BiFeO_3$ $Bi_{0.9}Dy_{0.1}FeO_3$ $BiFe_{0.97}Co_{0.03}O_3$ $Bi_{0.9}Dy_{0.1}Fe_{0.97}Co_{0.03}O_3$	R3c R3c R3c R3c	narrow pointed loop narrow pointed loop pointed loop pointed loop	[II.460]
454	$Bi_{1-x}Gd_xFeO_3$ ($x = 0, 0.01, 0.05, 0.10$)	R3c	series of pointed loops	[II.461]
455	$BiFeO_3$ $BiFe_{0.95}Ti_{0.05}O_3$	rhombohedral rhombohedral	pointed loop narrow pointed loop	[II.462]
456	$BiFe_{1-x}Ta_xO_3$ ($x = 0.01, 0.03$)	R3c	narrow pointed loops	[II.463]
457	$Bi_{4-x}Nd_xFeTi_3O_{12}$ ($x = 0.00, 0.05, 0.10, 0.15, 0.20, 0.25$)	symmetry was not presented	narrow elliptical loops	[II.464]
458	$(Bi_{0.9}Pb_{0.1})(Fe_{0.9}Ti_{0.1})O_3$	perovskite structure	elliptical loop	[II.465]
459	$Bi_{1-x}Sm_xFeO_3$ ($x = 0, 0.01, 0.05, 0.10$)	R3c	series of pointed loops	[II.466]
460	$Bi_{1-x}Mg_xFeO_3$ ($x = 0.1, 0.07$)	R3c	pointed loops	[II.467]
461	$PbFe_{0.5}Nb_{0.5}O_3$	Cm	pointed loops	[II.468]

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
462	$(Ni_{0.45}Co_{0.2}Zn_{0.35}F_2O_4)_{1-x}$−(sodium acetylacetonate)$_x$ (x = 0, 20, 40, 60, 80, 100%)	symmetry was not presented	elliptical loops	[II.469]
463	$BiFeO_3$	R3c	pointed loops	[II.470]
464	$Zn_{1-x}Co_xO$ (x = 0.0, 0.02, 0.04, 0.06)	hexagonal	elliptical loops	[II.471]
465	$K_{0.5}Bi_{0.5}TiO_3NaNbO_3$	Pmc2$_1$	elliptical loop	[II.472]
466	$0.90LaFeO_3-0.05CoFe_2O_4-0.05BaTiO_3$ $0.88LaFeO_3-0.05CoFe_2O_4-0.07BaTiO_3$ $0.85LaFeO_3-0.05CoFe_2O_4-0.10BaTiO_3$	Pbnm Pbnm Pbnm	series of elliptical loops elliptical loop elliptical loop	[II.473]
467	$BiFeO_3$	R3c	series of elliptical loops	[II.474]
468	$BiFe_{1-x}Zn_xO_3$ (x = 0, 0.1, 0, 15, 0.2)	rhombohedral	elliptical loops	[II.475]
469	$Bi_{0.8}Sr_{0.2}Fe_{1-x}Ta_xO_3$ (x = 0, 0.05, 0.10, 0.15)	R3c	pointed loops	[II.476]
470	$BiFeO_3$	R3c	elliptical loop	[II.477]
471	$Bi_{1-x}La_xFe_{1-y}Ni_yO_3$ (x = 0.0, 0.1; y = 0.0, 0.05)	R3c	narrow pointed loops	[II.478]
472	$Lu_{1-x}La_xFeO_3$ (x = 0, 0.05)	P6$_3$cm or Pnma	narrow pointed loops	[II.479]
473	$(BiFeO_3)_{0.50}(Co_{0.50}Fe_{0.50}Fe_2O_4)_{0.50}$	symmetry was not presented	series of narrow pointed loops	[II.480]
474	$Bi_{1-x}Pr_xFeO_3$ (x = 0.00, 0.03, 0.09, 0.12, 0.15)	R3c	elliptical loops	[II.481]
475	$BiFeO_3$	coexistence rhombohedral and amorphous phases	pointed loops	[II.482]
476	$BiFeO_3$ Ni^{2+} doped: 3, 5, 10 %	perovskite	elliptical loops	[II.483]
477	$BiFeO_3$	R3c	pointed loops	[II.484]
478	$Bi_{0.78}La_{0.08}Sm_{0.14}Fe_{0.85}Ti_{0.15}O_3$	R3c	narrow elliptical loops	[II.485]
479	$YMnO_3$	hexagonal	pointed loop	[II.486]
480	$Co_{0.5}Zn_{0.5}Fe_2O_4-0.8Sr_{0.2}TiO_3$ (molar ratio: 2:1)	symmetry was not presented	pointed loop	[II.487]
481	$BiFeO_3$	R3c	narrow pointed loops	[II.488]
482	$Ni_{0.5}Zn_{0.5}Fe_2O_4-BaTiO_3$ (molar ratios: 1:1.5, 1.5:1, 2:1)	coexistence spinel and perovskite	pointed loops	[II.489]
483	$Bi_{0.9}Sm_{0.1}Fe_{1-x}Co_xO_3$ (x = 0.05, 0, 10, 0.15)	R3c	series of pointed loops	[II.490]
484	$BiFeO_3$	R3c	pointed loops	[II.491]
485	$(1-x)(Ba_{0.8}Ca_{0.2}TiO_3)$–$x(Co_{0.6}Zn_{0.4})$ (x = 0.00, 0.01, 0.02, 0.03, 0.04)	coexistence perovskite and spinel	pointed loops	[II.492
486	$BaBi_xFe_{12-x}O_{19}$ (x = 0.2, 0.4, 0.6, 0.8, 1.0, 1.2)	P6$_3$/mmc	pointed loops	[II.493]
487	$Y_{1-x}Zr_xCrO_3$ (x = 0, 0.5, 0.1)	perovskite structure	pointed loops	[II.494]
488	$BiMgFeCeO_6$	orthorhombic	narrow elliptical loop	[II.495]
489	$Na_{0.47}Bi_{0.47}Ba_{0.06}Ti_{0.98-x}V_{0.02}Fe_xO_3$ (x = 0, 0.005, 0.01)	R3c	series of elliptical loops	[II.496]
490	$(1-x)(0.7BiFeO_3-0.3CoFe_2O_4)$–$x$Pb(Zr, Ti)$O_3$ (x = 0, 0.1, 0.2, 0.3)	coexistence R3c, Fd3m and P4mm	pointed loops	[II.497]
491	$MgFe_2O_4/(Ba_{0.85}Ca_{0.15})$ $(Zr_{0.1}Ti_{0.9})O_3$	coexistence Fd3m and P4mm	series of elliptical loops	[II.498]
492	$Bi_{1-x}Er_xFeO_3$ (x = 0.00, 0.04, 0.08, 0.12)	coexistence R3c and Pn2$_1$a	narrow pointed loops	[II.499]

Part III

Table 3 False or unconfirmed ferroelectric properties in single crystals.

No.	Substance	Symmetry	Shape of P–E loop	Ref.
134	R-[Zn_3(R-L)$_2$(CH_3COO) S-[Zn_3(R-L)$_2$(CH_3COO) (R/S)-HL R/S = 2-amino-3-phenyl-1-propanol L = 2-methoxy-6-[(1-phenyl-ethylimino)-methyl]-phenol	P2$_1$	series of pointed loops	[III.136]
135	[Zn(s-nip)$_2$]$_n$ {[Co(s-nip)$_2$]·(H_2O)}$_n$ s-nip = (S)-2-(1, 8-naphtalimido)-3-(4-imidazole)propanoete	P2$_1$ P2$_1$	narrow pointed loop pointed loop	[III.137]
136	[Zn_2(tib)$_{4/3}$(L^1)$_2$]·DMA tib = 1, 3, 5-tris(1-imidazolyt)benzene H_2L^1 = biphenyl-4, 4′-dicarboxylic acid DMA = N, N-dimethylacetamide	P3	pointed loop	[III.138]

(*continued*)

No.	Substance	Symmetry	Shape of P–E loop	Ref.
137	$\{Zn_3(BIDPE)_3(5\text{-}OH\text{-}bdc)_3{\cdot}4H_2O]_n$ BIDPE = 4, 4′-bis(imidazol-1-yl)diphenyl ether 5-OH-bdc = 5-hydroxy-isophthalic acid	Fdd2	series of pointed loops	[III.139]
138	Co(SDBA)(BIMB) H_2SDBA = 4, 4′-dicarboxybiphenylsulfone BIMP = 4, 4′-bis(1-imidazolyl)biphenyl	Cc	series of narrow pointed loops	[III.140]
139	$[Zn(HQA)Br_2(H_2O)_3]_n$ $[Zn(HQA)Br_2(D_2O)_3]_n$ HQA = 6-methoxyl-(8S, 9R)-cinchonan-0-ol-3-carboxylic acid	$P2_1$	pointed loop	[III.141]
140	$\{[Zn_6(MIDPPA)_3(1,2,4\text{-}btc)_3(NO_2)_3(H_2O)_3](H_2O)_7\}_n$ MIDPPA = 4, 4′-di(4-pyridine)-4′′-imidazoletriphenylamine 1, 2, 4-H3btc = 1, 2, 4-benzenetricarboxylic acid	R3	series of pointed loops	[III.142]
141	ZnP-L1 ZnP = zinc *meso*-tetra[4-(3, 4, 5-tri-dodecyloxybenzoate) phenyl]porphyrin L1 = 4, 7-di-4-pydriyl-2, 1, 3-benzothiadiazole	symmetry was not presented	pointed loops	[III.143]
142	$[Zn_2(TIPA)(btc)(\mu_2\text{-}OH)]{\cdot}4H_2O\}_n$ TIPA = [4-(1H-imidazol-1-yl)-phenyl]amine, H_3btc = 1, 3, 5-benzenetricarboxylic acid	$Pna2_1$	narrow pointed loop	[III.144]
143	$ZnL_2(H_2O)_2$ L = 1, 2, 2-trimethyl-3-(pyridin-4-yl-carbamoyl)-cyclopentanecarboxylic acid	C2	pointed loop	[III.145]
144	4-(4-(4-nitrobenzylideneamino)benzyl)oxazolidin-2-one 4-(4-(4-chlorobenzylideneamino)benzyl)oxazolidin-2-one 4-(4-(4-hydroxybenzy-lideneamino)benzyl)oxazolidin-2-one	$P2_1$ $P2_1$ $P2_1$	series of pointed loops series of pointed loops series of pointed loops	[III.146]
145	(R)-$H_2MbVBP)^{2+}(Cu_6Cl_8)^{2-}]$ (R)-H_2MbVBP = (R)-2-methyl-1, 4-bis(4-vinylbenzyl) piperazine	$P2_1$	pointed loop	[III.147]
146	$[Zn(TPPA)(phda)]_n$ H_2phda=1, 3-phenylenediacetic acid TPPA = tri(4-pyridylphenyl)amine	$Pna2_1$	pointed loop	[III.148]
147	$[Sm(HCOO)3]_n$	R3m	narrow pointed loop	[III.149]
148	$(CBQ)Cu^I_3(CN)_3Br$ CBQ-Br = N-4-cyanobenzylquinidinium bromide	C2	series of pointed loops	[III.150]
149	4-(4-(4-nitrobenzylideneamino)benzyl)oxazolidin-2-one 4-(4-(4-chlorobenzylideneamino)benzyl)oxazolidin-2-one 4-(4-(4-hydroxybenzylideneamino)benzyl)oxazolidin-2-one	$P2_1$ $P2_1$ $P2_1$	series of pointed loops series of pointed loops series of pointed loops	[III.151]
150	bis(μ-phenyl{[(pyridin-4-yl)methyl]amino}acetato)-diaqua-cobalt dihydrate	P1	series of pointed loops	[III.152]

References for Part I

I.68 N. Ahmad, G. M. Bhat, and P. N. Kotru, Optical, dielectric and ferroelectric characteristics of gel grown erbium tartrate hexahydrate crystals, *J. Electron. Mater.* 48(5), 3006 (2019)

I.69 N. Sharma, A. Gaur, and R. K. Kotnala, Signature of weak ferroelectricity and ferromagnetism in Mn doped CuO nanostructures, *J. Magn. Magn. Mater.* 377, 183 (2015)

I.70 E. Kabir, M. Khatun, R. J. Mustafa, K. Singh, and M. Rahman, AC electrical conductivity and dielectric properties of doping induced molecular ferroelectric diisopropylammonium bromide, *Mater. Res. Express* 6(9), 096306 (2019)

I.71 S. Sonia, N. Vijayan, M. Vij, P. Kumar, B. Singh, S. Das, R. Rajnikant, and S. H, Assessment of the imperative features of an L-arginine 4-nitrophenolate 4-nitrophenol dihydrate single crystal for nonlinear optical applications, *Mater. Chem. Front.* 1(6), 1107 (2017)

I.72 B. Want, Dielectric, ferroelectric and non-linear optical behavior of crystalline erbium tartrate dihydrate, *Curr. Appl. Phys.* 13(9), 1928 (2013)

I.73 E. Jerusha and S. S. Kirupavathy, Effect of L-asparagine as dopant on the growth and characteristics of ammonium tetroxalate dihydrate single crystal, *Mater. Sci. Pol.* 38(1), 48 (2020)

I.74 S. Suresh, Growth, optical, dielectric and ferroelectric properties of nonlinear optical single crystal: Glycine-phthalic acid, *J. Electron. Mater.* 45(11), 5904 (2016)

I.75 Z. Hu, H. Zhao, Z. Cheng, J. Ding, H. Gao, Y. Han, S. Wang, Z. Xu, Y. Zhou, T. Jia, H. Kimura, and M. Osada, van der Waals force layered multiferroic hybrid perovskite $(CH_3NH_3)_2CuCl_4$ single crystals, *Phys. Chem. Chem. Phys.* 22(7), 4235 (2020)

I.76 R. N. Perumal and A. Marimuthu, Temperature dependence on dielectric and ferroelectric properties of rubidium titanyl phosphate single crystal, *J. Mater. Sci. Mater. Electron.* 31(8), 6385 (2020)

References for Part II

II.304 G. Gowri, R. Saravanan, S. Sasikumar, and I. B. Shameem Banu, Exchange bias effect, ferroelectric property, primary bonding and charge density analysis of $La_{1-x}Ce_xFeO_3$ multiferroics, *Mater. Res. Bull.* 118, 110512 (2019)

II.305 R. RameshKumar, T. Ramachandran, K. Natarajan, M. Muralidharan, F. Hamed, and V. Kurapati, Fraction of rare-earth (Sm/Nd)-lanthanum ferrite-based perovskite ferroelectric and magnetic nanopowders, *J. Electron. Mater.* 48(3), 1694 (2019)

II.306 Y. Wu, Q. Xie, M. Li, X. Sun, H. L. Cai, and X. S. Wu, Structural and ferroelectric properties of orthogonal crystalline in Fe-doped $HoMnO_3$ synthesized at normal pressure, *J. Mater. Sci. Mater. Electron.* 30(8), 7629 (2019)

II.307 S. Leelashree, and S. Srinath, Investigation of structural, ferroelectric, and magnetic properties of La-doped $LuFeO_3$ nanoparticles, *J. Supercond. Nov. Magn.* 33(6), 1587 (2020)

II.308 Q. Yao, X. Xu, Y. He, W. Mao, and X. Li, Improved ferroelectric and ferromagnetic properties of $(1-x)BiFeO_3$–$xBaTiO_3$ ceramics, *J. Supercond. Nov. Magn.* 32(4), 1001 (2019)

II.309 W. Zhang, X. Zhu, L. Wang, X. Xu, Q. Yao, W. Mao, and X. Li, Study on the magnetic and ferroelectric properties of $Bi_{0.95}Dy_{0.05}Fe_{0.95}M_{0.05}O_3$ (M = Mn, Co) ceramics, *J. Supercond. Nov. Magn.* 30(11), 3001 (2017)

II.310 R. Wang, H. Shu, W. Mao, X. Wang, H. Xue, L. Chu, J. Yang, and X. Li, Study on the magnetic and ferroelectric properties of Ca-doped and (Eu, Ca) co-doped $BiFeO_3$, *J. Supercond. Nov. Magn.* 30(4), 999 (2017)

II.311 J. Márquez Álvarez, D. A. Landínez Téllez, J. A. Cardona Vásquez, J. Roa-Rojas, and E. Ortiz Muñoz, Electric and structural properties of the new Ba_2TiZrO_6 ferroelectric complex perovskite, *J. Supercond. Nov. Magn.* 26(7), 2459 (2013)

II.312 W. Yang, Z. Wang, T. Wang, M. Jin, J. Xu, and Y. Sui, Ferroelectric and magnetic properties of $CoFe_2O_4/BaTiO_3$ prepared by microwave-assisted sol-gel method, *J. Supercond. Nov. Magn.* 30(2), 539 (2017)

II.313 M. V. Shisode, D. N. Bhoyar, P. P. Khirade, and K. M. Jadhav, Structural, microstructural, magnetic, and ferroelectric properties of Ba^{2+}-doped $BiFeO_3$ nanocrystalline multifferroic material, *J. Supercond. Nov. Magn.* 31(8), 2501 (2018)

II.314 S. Matteppanavar, S. Rayaprol, A. V. Anupama, B. Sahoo, and B. Angadi, On the room temperature ferromagnetic and ferroelectric properties of $Pb(Fe_{1/2}Nb_{1/2})O_3$, *J. Supercond. Nov. Magn.* 28(8), 2465 (2015)

II.315 S. Matteppanavar, S. i, S. Rayaprol, B. Angadi, and B. Sahoo, Evidence for room-temperature weak ferromagnetic and ferroelectric ordering in magnetoelectric $Pb(Fe_{0.634}W_{0.266}Nb_{0.1})O_3$ ceramic, *J. Supercond. Nov. Magn.*30(5), 1317 (2017)

II.316 Z. Chen, C. Wang, T. Li, J. Hao, and J. Zhang, Investigation on electrical and magnetic properties of Gd-doped $BiFeO_3$, *J. Supercond. Nov. Magn.* 23(4), 527(2010)

II.317 J. S. Bangruwa, S. Kumar, A. Chauhan, P. Kumar, and V. Verma, Modified magnetic and electrical properties of perovskite-spinel multiferroic composites, *J. Supercond. Nov. Magn.* 32(8), 2559 (2019)

II.318 T. Murtaza, I. A. Salmani, J. Ali, and M. S. Khan, Effect of Mo doping at the B site on structural and electrical properties of multiferroic $BiFeO_3$, *J. Supercond. Nov. Magn.* 31(6), 1955 (2018)

II.319 W. Yang, Z. Wang, Z. Zhou, T. Wang, M. Jin, J. Xu, and Y. Sui, Synthesis and characterization of $CoFe_2O_4/BaTiO_3$ multiferroic composites, *J. Supercond. Nov. Magn.* 30(3), 665 (2017)

II.320 J. A. Cardona Vásquez, D. A. Landínez Téllez, J. A. Cuervo Farfán, J. Roa-Rojas, and M. E. Gómez, Synthesis and physical properties of $La_{0.53}Ca_{0.26}Ba_{0.21}Mn_{0.77}Ti_{0.21}Zr_{0.02}O_3$ multiferroic material, *J. Supercond. Nov. Magn.* 26(7), 2455 (2013)

II.321 J. Chen, H. Dai, T. Li, D. Liu, R. Xue, H. Xiang, and Z. Chen, Role of Mn substitution in the multiferroic properties of $BiFeO_3$ ceramics, *J. Supercond. Nov. Magn.* 28(9), 2751 (2015)

II.322 Y. Li, H. Zhang, X. Dong, Q. Li, W. Chen, H. Liu, X. Ge, X. Li, C. Dong, and S. Ren, Room-temperature multiferroic properties and local structures of the Mn-doped and (Pb, Mn)-codoped $BiFeO_3$, *J. Supercond. Nov. Magn.* 27(2), 575 (2014)

II.323 J. Singh, A. Vasishth, and N. K. Verma, Multiferroic properties of $Zn_{1-x}Mg_xO$ nanoparticles, *J. Supercond. Nov. Magn.* 28(10), 3069 (2015)

II.324 H. Shu, Y. Ma, Z. Wang, W. Mao, L. Chu, J. Yang, Q. Wu, Y. Min, R. Song, and X. Li, Structural, optical and multiferroic properties of (Nd, Zn)-co-doped $BiFeO_3$ nanoparticles, *J. Supercond. Nov. Magn.* 30(11), 3027 (2017)

II.325 H. Y. Dai, Z. P. Chen, T. Li, R. Z. Xue, and J. Chen, Structural and electrical properties of bismuth ferrite ceramics sintered in different atmospheres, *J. Supercond. Nov. Magn.* 26(10), 3125 (2013)

II.326 S. Jindal, S. Devi, A. Vasishth, and G. Kumar, Study of structural and dielectrical properties of lead free polycrystalline electro ceramics $Ba_5CaTi_2Nb_8O_{30}$ (BCTN) for microwave tunable device applications, *Mater. Sci. Appl.* 9(1), 55 (2018)

II.327 J. Panda, B. B. Mohanty, P. S. Sahoo, and R. N. P. Choudhary, Preparation and study of dielectric and electrical conductivity of $Ba_5NdTi_3V_7O_{30}$ ceramics, *Open Acc. Libr. J.* 5, e4864 (2018)

II.328 N. Kumar, B. Narayan, M. Kumar, A. Kumar Singh, S. Dhiman, and S. Kumar, Effect of Nd^{3+} substitution on structural, ferroelectric, magnetic and electrical properties of $BiFeO_3$–$PbTiO_3$ binary system, *SN Appl. Sci. (Basel)* 1, 874 (2019)

II.329 P. Bai, Y. Zeng, J. Han, Y. Wei, M. Li, and Y. Li, Structure, electrical, dielectric and ferroelectric properties of $(1-x)BiFeO_3$–xAl_2O_3 ceramics, *J. Mater. Sci. Mater. Electron.* 30(16), 15413 (2019)

II.330 S. Dabas, M. Kumar, P. Chaudhary, S. Shankar, S. Roy, and O. P. Thakur, Structural, energy storage analysis and enhanced magnetoelectric coupling in Mn modified multiferroic $BiFeO_3$, *J. Electron. Mater.* 48(9), 5785 (2019)

II.331 Y. Xue, R. Xu, Z. Wang, R. Gao, C. Li, G. Chen, X. Deng, W. Cai, and C. Fu, Effect of magnetic phase on structural and multiferroic properties of $Ni_{1-x}Zn_xFe_2O_4/BaTiO_3$ composite ceramics, *J. Electron. Mater.* 48(8), 4806 (2019)

II.332 R. Xu, S. Zhang, F. Wang, Q. Zhang, Z. Li, Z. Wang, R. Gao, W. Cai, and C. Fu, The study of microstructure, dielectric and multiferroic properties of $(1-x)Co_{0.8}Cu_{0.2}Fe_2O_4$–$xBa_{0.6}Sr_{0.4}TiO_3$ composites, *J. Electron. Mater.* 48(1), 386 (2019)

II.333 P. R. Das, B. Pati, B. C. Sutar, and R. N. P. Choudhury, Study of structural and electrical properties of a new type of complex tungsten bronze electroceramics: $Li_2Pb_2Y_2W_2Ti_4V_4O_{30}$, *J. Mod. Phys.* 3, 870 (2012)

II.334 M. Shariq, D. Kaur, V. S. Chandel, P. K. Jain, S. Florence, M. Sharma, and S. Hussain, Study of structural, magnetic and optical properties of $BiFeO_3$–$PbTiO_3$ multiferroic composites, *Arab. J. Sci. Eng.* 44(1), 613 (2019)

II.335 Y. Shia, Y. Pu, Q. Zhang, J. Li, and L. Guo, Dielectric and multiferroic properties of two-layered $SrBi_2Nb_{2-x}Fe_xO_9$ aurivillius compounds, *Ceram. Int.* 44(S1), S61 (2018)

II.336 Kumar, K. L. Yadav, J. Shah, and R. K. Kotnala, Investigation of magnetoelectric effect in lead free $K_{0.5}Na_{0.5}NbO_3$–$BaFe_{12}O_{19}$ novel composite system, *J. Adv. Ceram* 8(3), 333 (2019)

II.337 P. S. Sahoo, A. Panigrahi, S. K. Patri, and R. N. P. Choudhary, Structural, dielectric, electrical and piezoelectric properties of $Ba_4SrRTi_3V_7O_{30}$ (R=Sm, Dy) ceramics, *Cent. Eur. J. Phys.* 6(4), 843 (2008)

II.338 S. K. Barik, R. N. P. Choudhary, and P. K. Mahapatra, Structural and dielectric studies of lead-free ceramics: $Na_{1/2}Y_{1/2}TiO_3$, *Cent. Eur. J. Phys.* 6(4), 849 (2008)

II.339 P. S. Sahoo, A. Panigrahi, S. K. Patri, and R. N. P. Choudhary, Dielectric properties of $Ba_3Sr_2DyTi_3V_7O_{30}$ ceramics, *Cent. Eur. J. Phys.* 8(4), 639 (2010)

II.340 S. K. Patri and R. N. P. Choudhary, Phase transition in $Bi_8Fe_6Ti_3O_{27}$ multiferroic ceramics, *Cent. Eur. J. Phys.* 6(3), 450 (2008)

II.341 B. Behera, P. Nayak, and R. N. P. Choudhary, Structural and electrical properties of $KCa_2Nb_5O_{15}$ ceramics, *Cent. Eur. J. Phys.* 6(2), 289 (2008)

II.342 X.-Z. Deng, J. Zhang, and S.-T. Zhang, Simultaneously enhanced ferroelectric and magnetic properties in $0.675BiFe_{1-x}Cr_xO_3$–$0.325PbTiO_3$ ($x = 0$–0.05) ceramics, *J. Mater. Sci. Mater. Electron.* 28(3), 2435 (2017)

II.343 A. Kumar and D. Varshney, Crystal structure refinement of $Bi_{1-x}Nd_xFeO_3$ multiferroic by the Rietveld method, *Ceram. Int.* 38(5), 3935 (2012)

II.344 W. Liu, S. Tsukada, and Y. Akishige, Preparation and ferroelectric properties of MnO_2 doped $BaTi_2O_5$ ceramics by spark plasma sintering from the solid-state-calcined powder, *J. Mater. Sci. Mater. Electron.* 25(3), 1280 (2014)

II.345 M. Muneeswaran and N. V. Giridharan, Effect of Dy-substitution on the structural, vibrational, and multiferroic properties of $BiFeO_3$ nanoparticles, *J. Appl. Phys.* 115(21), 214109 (2014)

II.346 W. Mao, X. Wang, Y. Han, X. Li, Y. Li, Y. Wang, Y. Ma, X. Feng, T. Yang, J. Yang, and W. Huang, Effect of Ln (Ln = La, Pr) and Co co-doped on the magnetic and ferroelectric properties of $BiFeO_3$ nanoparticles, *J. Alloys Compd.* 554, 520 (2014)

II.347 M. P. Rao, S. Musthafa, J. J. Wu, and S. Anandan, Facile synthesis of perovskite $LaFeO_3$ ferroelectric nanostructures for heavy metal ion removal applications, *Mater. Res. Phys* 232, 200 (2019)

II.348 O. M. Hemeda, B. I. Salem, H. Abdelfatah, G. Abdelsatar, and M. Shihab, Dielectric and ferroelectric properties of barium zirconate titanate ceramics prepared by ceramic method, *Physica B* 574, 411680 (2019)

II.349 R. Gao, X. Qin, Q. Zhang, Z. Xu, Z. Wang, C. Fu, G. Chen, X. Deng, and W. Cai, A comparative study of the dielectric, ferroelectric and anomalous magnetic properties of $Mn_{0.5}Mg_{0.5}Fe_2O_4/Ba_{0.8}Sr_{0.2}Ti_{0.9}Zr_{0.1}O_3$ composite ceramics, *Mater. Res. Phys.* 232, 428 (2019)

II.350 H. Zhao, R. Yang, Y. Li, G. Liu, Y. Lu, J. Tang, S. Zhang, and G. Li, Enhanced dielectric and multiferroic properties in $BaTiO_3$ doped $Bi_{0.85}Nd_{0.15}Fe_{0.98}Mn_{0.02}O_3$ ceramics, *J. Magn. Magn. Mater.* 494, 165779 (2020)

II.351 T.-H. Wang, C.-S. Tu, Y. Ding, T.-C. Lin, C.-S. Ku, W.-C. Yang, H.-H. Yu, K.-T. Wu, Y.-D. Yao, and H.-Y. Lee, Phase transition and ferroelectric properties of $xBiFeO_3$–$(1-x)BaTiO_3$ ceramics, *Curr. Appl. Phys.* 11(3), s240 (2011)

II.352 T. Wang, L. Jin, Y. Tian, L. Shu, Q. Hu, and X. Wei, Microstructure and ferroelectric properties of Nb_2O_5-modified $BiFeO_3$–$BaTiO_3$ lead-free ceramics for energy storage, *Mater. Lett.* 137, 79 (2014)

II.353 Z. X. Cheng, A. H. Li, X. L. Wang, S. X. Dou, K. Ozawa, H. Kimura, S. J. Zhang, and T. R. Shrout, Structure, ferroelectric properties, and magnetic properties of the La-doped bismuth ferrite, *J. Appl. Phys.* 103(7), 07E507 (2008)

II.354 R. Rai, S. K. Mishra, N. K. Singh, S. Sharma, and A. L. Kholkin, Preparation, structures, and multiferroic properties of single-phase $BiRFeO_3$, R = La and Er ceramics, *Curr. Appl. Phys.* 11(3), 508 (2011)

II.355 E. Mostafavi, A. Ataie, M. Ahmadzadeh, M. Palizdar, T. P. Comyn, and A. J. Bell, Synthesis of nano-structured $Bi_{1-x}Ba_xFeO_3$ ceramics with enhanced magnetic and electrical properties, *Mater. Chem. Phys.* 162, 106 (2015)

II.356 N. B. Delfard, H. Maleki, A. M. Badizi, and M. Taraz, Enhanced structural, optical, and multiferroic properties of rod-like bismuth iron oxide nanoceramics by dopant lanthanum, *J. Supercond. Nov. Magn.* 33(4), 1207 (2020)

II.357 P. Choudhary, P. Saxena, A. Yadav, A. K. Sinha, V. N. Rai, M. D. Varshney, and A. Mishra, Weak ferroelectricity and leakage current behavior of multiferroic $CoCr_2O_4$ nanomaterials, *J. Supercond. Nov. Magn.* 32(8), 2639 (2019)

II.358 S. Matteppanavar, J. Angadi, T. Nagaraja, S. Rayaprol, and B. Angadi, Room temperature neutron diffraction, electron paramagnetic resonance and ferroelectric properties of relax or ferroelectric $Pb(Fe_{0.6}Nb_{0.2}W_{0.2})O_3$, *AIP Conf. Proc.* 2142, 090009 (2019)

II.359 M. Khan, A. Mishra, J. Shukla, and P. Sharma, Structural, optical and electrical properties of $BaTiO_3$–$NiFe_2O_4$ based multifunctional composites, *AIP Conf. Proc.* 2142, 160012 (2019)

II.360 F. Ma and Hongjian Zhao, Optical, magnetic, ferroelectric properties and photocatalytic activity of $Bi_2Fe_4O_9$ nanoparticles through a hydrothermal assisted sol–gel method, *Russ. J. Phys. Chem.* 93(10), 2079 (2019)

II.361 Q.-H. Jiang, C.-W. Nan, and Z.-J. Shen, Synthesis and properties of multiferroic La-modified $BiFeO_3$ ceramics, *J. Am. Ceram. Soc.* 89(7), 2123 (2006)

II.362 A. Gautam and V. S. Rangra, Effect of Ba ions substitution on multiferroic properties of $BiFeO_3$ perovskite, *Cryst. Res. Technol.* 45(9), 953 (2010)

II.363 P. Sharma and D. Varshney, Effect of La and Pb substitution on structural and electrical properties of parent and La/Pb co-doped $BiFeO_3$ multiferroic, *Adv. Mater. Lett.* 5(2), 71 (2014)

II.364 M. Hasan, M. A. Hakim, M. A. Basith, M. S. Hossain, B. Ahmmad, M. A. Zubair, A. Hussain, and M. F. Islam, Size dependent magnetic and electrical properties of Ba-doped nanocrystalline $BiFeO_3$, *AIP Adv.* 6(3), 035314 (2016)

II.365 K. Naveen, N. Kumar, T. K. Mandal, P. D. Babu, V. Siruguri, P. K. Maji, and A. K. Paul, Multiferroic behaviour in B-site Cr-doped hexagonal $YInO_3$ perovskites: Synthesis, structure and properties, *J. Mol. Struct.* 1185, 432 (2019)

II.366 V. M. Gaikwad, and S. A. Acharya, Perovskite-spinel composite approach to modify room temperature structural, magnetic and dielectric behavior of $BiFeO_3$, *J. Alloys Compd.* 695, 3689 (2017)

II.367 B. Dhanalakshmi, P. Kollu, B. C. Sekhar, B. P. Rao, and P. S. V. S. Rao, Enhanced magnetic and magnetoelectric properties of Mn doped multiferroic ceramics, *Ceram. Int.* 43(12), 9272 (2017)

II.368 A. Mitra, A. Shaw, and P. K. Chakrabarti, Microstructure, dielectric, ferroelectric and magnetoelectric coupling of a novel multiferroic of $[(GdMnO_3)_{0.7}(CoFe_2O_4)_{0.3}]_{0.5}[TiO_2]_{0.5}$ nanocomposite, *Mater. Chem. Phys.* 240, 122242 (2020)

II.369 H. Zhao, R. Yang, Y. Li, G. Liu, Y. Lu, J. Tang, S. Zhang, and G. Li, Enhanced dielectric and multiferroic properties in $BaTiO_3$ doped $Bi_{0.85}Nd_{0.15}Fe_{0.98}Mn_{0.02}O_3$ ceramics, *J. Magn. Magn. Mater.* 494, 165779 (2020)

II.370 C. Chakrabarti, Q. Fu, X. Chen, Y. Qiu, S. Yuan, and C. Li, Modulation of magnetic, ferroelectric and leakage properties by $HoFeO_3$ substitution in multiferroic $0.7BiFeO_3$–$0.3Ba_{0.8}Ca_{0.2}TiO_3$ solid solutions, *Ceram. Int.* 46(1), 212 (2020)

II.371 M. Shariq, S. Hussain, M. Rafique, M. Naveed-Ul-Haq, and A. Rehman, Enhanced multiferroic response in new binary solid solution $0.5Bi_{0.70}A_{0.30}FeO_3$–$0.5PbTi_{0.5}Fe_{0.5}O_3$ (A= Sr, Pb, and Ba) systems, *J. Magn. Magn. Mater.* 492, 165685 (2019)

II.372 R. Pandey, U. Shankar, S. S. Meena, and A. K. Singh, Stability of ferroelectric phases and magnetoelectric response in multiferroic $(1-x)Bi(Ni_{1/2}Ti_{1/2})O_3$–$PbTiO_3/xNi_{0.6}Zn_{0.4}Fe_2O_4$ particulate composites, *Ceram. Int.* 45(17), 23013 (2019)

II.373 R. Sheikh, V. M. Gaikwad, and S. A. Acharya, Investigation of multiferroic behavior on flakes-like $BiFeO_3$, *J. Appl. Phys. Conf. Proc.* 1731, 140030 (2016)

II.374 F. L. Wang, Y. Li, N. Wang, L. Zhu, A. Jain, Y. G. Wang, and F. G. Chen, Enhanced magnetic, ferroelectric and optical properties of Sr and Co co-doped $BiFeO_3$ powders, *J. Alloys Compd.* 810, 151941 (2019)

II.375 R. Gao, X. Qin, H. Wu, R. Xu, L. Liu, Z. Wang, C. Fu, W. Cai, G. Chen, and X. Deng, Effect of Ti doping on the dielectric, ferroelectric and magnetic properties of $Bi_{0.86}La_{0.08}Sm_{0.14}FeO_3$ ceramics, *Mater. Res. Express* 6, 106317 (2019)

II.376 Arti, S. Kumar, P. Kumar, R. Walia, and V. Verma, Improved ferroelectric, magnetic and photovoltaic properties of Pr doped multiferroic bismuth ferrites for photovoltaic application, *Res. Phys.* 14, 102403 (2019)

II.377 G. R. Gajula and L. R. Buddiga, Structural, ferroelectric, dielectric, impedance and magnetic properties of Gd and Nb doped barium titanate-lithium ferrite solid solutions, *J. Magn. Magn. Mater.* 494, 165822 (2020)

II.378 L. Hou, L. Shi, J. Zhao, S. Zhou, S. Pan, X. Yuan, and Y. Xin, Room-temperature multiferroicity in $CeFeO_3$ ceramics, *J. Alloys Compd.* 797, 363 (2019)

II.379 Y. Wei, C. Bai, W. Zhu, C. Jin, D. Gao, G. Xu, Z. Jian, and Y. Zeng, Multiferroic orders in $0.5BiFeO_3$–$0.5Bi_{0.5}K_{0.5}TiO_3$, *Ceram. Int.* 45, 15725 (2019)

II.380 A. Puhan, A. K. Nayak, B. Bhushan, S. Praharaj, S. S. Meena, and D. Rout, Enhanced electrical, magnetic and optical behaviour of Cr doped $Bi_{0.98}Ho_{0.02}FeO_3$ nanoparticles, *J. Alloys Compd.* 796, 229 (2019)

II.381 S. K. Kundu, D. K. Rana, and S. Basu, Observation of room temperature multiferroic and electrical properties in gadolinium ferrite nanoparticles, *Mod. Phys. Lett. B* 33(21), 1950243 (2019)

II.382 S. T. Dadami, S. Rayaprol, V. Sathe, and B. Angadi, Effect of electric poling on structural, magnetic and ferroelectric properties of $0.8PbFe_{0.5}Nb_{0.5}O_3$–$0.2BiFeO_3$ multiferroic solid solution, *Ceram. Int.* 45(10), 13171 (2019)

II.383 D. D. Mishra, D. M. Tewelde, M. Wang, and G. Tan, Multiferroic properties of $PbFe_{12}O_{19}$–$PbTiO_3$ composite ceramics, *J. Mater. Sci. Mater. Electron.* 30(11), 10830 (2019)

II.384 B. Dhanalakshmi, K. Pratap, B. P. Rao, and P. S. V. S. Rao, Effects of Mn doping on structural, dielectric and multiferroic properties of $BiFeO_3$ nanoceramics, *J. Alloys Compd.* 676, 193 (2016)

II.385 S. Divya Lakshmi, and I. B. Shameem Banu, Tailoring the multiferroic properties of $BiFeO_3$ by co-doping Er at Bi site with aliovalent Nb, Mn and Mo at Fe site, *Appl. Ceram. Technol.* 16(4), 1622 (2019)

II.386 M. Kumar, D. M. Phase, and R. J. Choudhary, Structural, ferroelectric and dielectric properties of multiferroic $YMnO_3$ synthesized via microwave assisted radiant hybrid sintering, *Heliyon* 5(5), e01691 (2019)

II.387 S. Godara, N. Sinha, G. Ray, and B. Kumar, Combined structural, electrical, magnetic and optical characterization of bismuth ferrite nanoparticles synthesized by auto-combustion router, *J. Asian Ceram. Soc.* 2(4), 416 (2014)

II.388 S. Thakur, K. Sharma, and N. S. Negi, Investigating various properties of lead free $65Na_{0.5}Bi_{0.5}TiO_3$–$35CoFe_2O_4$ multiferroic composite, *AIP Conf. Proc.* 2115, 030404 (2019)

II.389 N. S. Negi, R. Kumar, H. Sharma, J. Shah, and R. K. Kotnala, Structural, multiferroic, dielectric and magnetoelectric properties of lead-free composites, *J. Magn. Magn. Mater.* 456, 292 (2017)

II.390 A. Sharma, R. K. Kotnala, and N. S. Negi, Structural, dielectric, magnetic and ferroelectric properties of $(PbTiO_3)_{0.5}$–$(Co_{0.5}Zn_{0.5}Fe_2O_4)_{0.5}$ composite, *Physica B* 415, 97 (2013)

II.391 N. K. Verma, G. Kamde, D. Kumar, C. B. Singh, and A. K. Singh, Synthesis and dielectric characterization of $BaZrNb_2O_8$ high temperature piezoelectric ceramics, *AIP Conf. Proc.* 2115, 030378 (2019)

II.392 G. Dhir, P. Uniyal, and N. K. Verma, Effect of particle size on the multiferroic properties of Tb-doped $BiFeO_3$ nanoparticles, *J. Supercond. Nov. Magn.* 29(10), 2621 (2016)

II.393 C. Panda, P. Kumar, and M. Kar, Structural stability of $BiFeO_3$ by chemical modification in Bi as well as Fe sites, *AIP Conf. Proc.* 1512, 1286 (2013)

II.394 V. S. Puli, I. Coondoo, N. Panwar, A. Srinivas, and R. S. Katiyar, Room temperature structural, morphological, and enhanced ferroelectromagnetic properties of $xBa_{0.7}Ca_{0.3}$–$(1-x)BaFe_{0.2}Ti_{0.3}$ multiferroic composites, *J. Appl. Phys.*111, 102802 (2012)

II.395 Y. Zhu, C. Quan, Y. Ma, Q. Wang, W. Mao, X. Wang, J. Zhang, Y. Min, J. Yang, X. Li, and W. Huang, Effect of Eu, Mn co-doping on structural, optical and magnetic properties of $BiFeO_3$ nanoparticles, *Mater. Sci. Semicond. Process.* 57, 178 (2017)

II.396 Md. R. Islam, Md. S. Islam, M. A. Zubair, H. M. Usama, Md. S. Azam, and A. Sharif, Evidence of superparamagnetism and improved electrical propertiesin Ba and Ta co-doped $BiFeO_3$ ceramics, *J. Alloys Compd.* 735, 2584 (2018)

II.397 N. Kumar, A. Gaur, and G. D. Varma, Enhanced magnetization and magnetoelectric coupling in hydrogen treated hexagonal, *J. Alloys Compd.* 509, 1060 (2011)

II.398 A. K. Sinha, B. Bhushan, Jagannath, R. K. Sharma, S. Sen, B. P.Mandal, S. S. Meena, P. Bhatt, C. L. Prajapat, A. Priyam, S. K. Mishra, and S. C. Gadkari, Enhanced dielectric, magnetic and optical properties of Cr-doped $BiFeO_3$ multiferroic nanoparticles synthesized by sol–gel route, *Res. Phys.* 13, 102299 (2019)

II.399 Q. Q. Wang, Z. Wang, X. Q. Liu, and X. M. Chen, Improved structure stability and multiferroic characteristics in $CaTiO_3$-modified $BiFeO_3$ ceramics, *J. Am. Ceram. Soc.* 95(2), 670 (2012)

II.400 C. X. Li, B. Yang, S. T. Zhang, R. Zhang, Y. Sun, H. J. Zhang, and W. W. Cao, Enhanced multiferroic and magnetocapacitive properties of $(1-x)Ba_{0.7}Ca_{0.3}TiO_3$–$xBiFeO_3$ ceramics, *J. Am. Ceram. Soc.* 97(3), 816 (2014)

II.401 Q.-H. Jiang, A. Mei, Y.-H. Lin, C.-W. Nan, and Z. Shen, Ferroic properties of highly dense multiferroic $Bi_{1-x}La_{0.05}Tb_xFeO_3$ ceramics via sheltered spark plasma sintering, *J. Am. Ceram. Soc.* 91(7), 2189 (2008)

II.402 Y. Qin, X. M. Chen, and X. Q. Liu, Dielectric, ferroelectric, and magnetic characteristics of $LuFeCuO_4$ ceramics, *J. Am. Ceram. Soc.* 95(3), 977 (2012)

II.403 Y. Bai, X. L. Zhu, X. M. Chen, and X. Q. Liu, Dielectric and ferroelectric characteristics of $Ba_5NdFe_{1.5}Nb_{8.5}O_{30}$ tungsten bronze ceramics, *J. Am. Ceram. Soc.* 93(11), 3573 (2010)

II.404 S. Dash, R. N. P. Choudhary, P. R. Das, and A. Kumar, Structural, dielectric and multiferroic properties of $(Bi_{0.5}K_{0.5})(Fe_{.5}Nb_{0.5})O_3$, *Can. J. Phys.* 93(7), 738 (2015)

II.405 V. Turchenko, V. G. Kostishyn, S. Trukhanov, F. Damay, F.Porcher, M. Balasoiu, N. Lupu, B. Bozzo, I. Fina, A. Trukhanov, J. Waliszewski, K. Recko, and S. Polosan, Crystal and magnetic structures, magnetic and ferroelectric properties of strontium ferrite partially substituted with in ions, *J. Alloys Compd.* 821, 123412 (2020)

II.406 G. Tan and X. Chen, Synthesis, structures, and multiferroic properties of strontium hexaferrite ceramics, *J. Electron. Mater.* 42(5), 906 (2013)

II.407 V. G. Kostishyn, L. V. Panina, V. Timofeev, L. V. Kozhitov, A. N. Kovalev, and A. K. Zyuzin, Dual ferroic properties of hexagonal ferrite ceramics $BaFe_{12}O_{19}$ and $SrFe_{12}O_{19}$, *J. Magn. Magn. Mater.* 400, 327 (2016)

II.408 Z. Manzoor, A. Khalid, G. M. Mustafa, S. M. Ramay, S. Naseem, and S. Atiq, Magnetoelectric coupling caused by strain mediation in hetero-structured spinel-perovskite multiferroic composites, *J. Magn. Magn. Mater.* 500, 166409 (2020)

II.409 S. K. Upadhyay, V. R. Reddy, S. M. Gupta, N. Chauhan, and A. Gupta, Reduced leakage current and improved ferroelectricity in magneto-electric composite ceramics prepared with microwave assisted radiant hybrid sintering, *AIP Adv.* 5(4), 047135 (2015)

II.410 T. P. Wendari, S. Arief, N. Mufti, A. Insani, J. Baas, G. R. Blake, and Zulhadjri, Structural and multiferroic properties in double-layer Aurivillius phase $Pb_{0.4}Bi_{2.1}La_{0.5}Nb_{1.7}Mn_{0.3}O_9$ prepared by molten salt method, *J. Alloys Compd.* 820, 153145 (2020)

II.411 M. K. Das, M. A. Zubair, H. Tanaka, and A. K. M. A. Hossain, An experimental insight of the multiferroic properties of magne to electrically coupled xLNCZFO+$(1-x)$BSTDO composites, *J. Magn. Magn. Mater.* 502, 166449 (2020)

II.412 T. Acharya and R. N. P. Choudhary, Structural, electrical and magneto-electric properties of chemically synthesized Bi/$PbTiO_3$-modified cobalt titanate, *Physica B* 582, 411970 (2020)

II.413 P. Gupta, P. K. Mahapatra, and R. N. P. Choudhary, Structural and electrical characteristics of Bi_2YZrVO_9 ceramic, *Mater. Res. Bull.* 124, 110745 (2020)

II.414 D. N. Bhoyar, S. B. Somvanshi, P. B. Kharat, A. A. Pandit, and K. M. Jadhav, Structural, infrared, magnetic and ferroelectric properties of $Sr_{0.5}Ba_{0.5}Ti_{1-x}Fe_xO_3$ nanoceramics: Modifications via trivalent Fe ion doping, *Physica B* 581, 411944 (2020)

II.415 S. Das, R. C. Sahoo, and T. K. Nath, Investigation of room temperature multiferroic properties in sol–gel derived gadolinium, cobalt doped $BiFeO_3$ nanoceramics, *J. Appl. Phys.* 127(5), 054101 (2020)

II.416 N. Pradhani, P. K. Mahapatra, R. N. P. Choudhary, and R. Giri, Structural, dielectric and electrical characteristics of manganese modified $Bi_{0.5}K_{0.5}TiO_3$ ceramic, *Physica B* 580, 411719 (2020)

II.417 A. D. Mani and I. Soibam, Influence of diamagnetic Zn on structural, ferroelectric and ferromagnetic properties of $BiFe_{1-x}Zn_xO_3$ ($0\% \le x \le 8\%$), *Physica B* 560, 97 (2019)

II.418 A. Panda, R. Govindaraj, and G. Amarendra, Magneto dielectric coupling in $Bi_2Fe_4O_9$, *Physica B* 570, 206 (2019)

II.419 B. Shri Prakash and K. B. R. Varma, Effect of sintering conditions on the microstructural, dielectric, ferroelectric and varistor properties of $CaCu_3Ti_4O_{12}$ and $La_{2/3}Cu_3Ti_4O_{12}$ ceramics belonging to the high and low dielectric constant members of $ACu_3M_4O_{12}$ (A=alkali, alkaline-earth metal, rare-earth metal or vacancy, M=transition metal) family of oxides, *Physica B* 403(13–16), 2246 (2008)

II.420 F. Mumtaz, G. H. Jaffari, Q. Hassan, and S. I. Shah, Correlation between ionic size and valence state of tetra, penta and hexavalent B-site substitution with solubility limit, phase transformation and multiferroic properties of $Bi_{0.875}Eu_{0.125}FeO_3$, *Physica B* 538, 213 (2018)

II.421 J. Fisher, S. H. Jang, M. S. Park, H. Sun, S. H. Moon, J. S. Lee, and A. Hussain, The effect of niobium doping on the electrical properties of $0.4(Bi_{0.5}K_{0.5})TiO_3$–$0.6BiFeO_3$ lead-free piezoelectric ceramics, *Materials (Basel)* 8(12), 8183 (2015)

II.422 S. Hait, S. Ghose, and K. Mandal, Effect of Ba and Y co-doping on the structural and magneto-electric properties of $BiFeO_3$ ceramic, *J. Alloys Compd.* 822, 153614 (2020)

II.423 W.-M. Zhu, H.-Y. Guo, and Z.-G. Ye, Structure and properties of multiferroic $(1-x)BiFeO_3$–$xPbTiO_3$ single crystals, *J. Mater. Res.* 22(8), 2136 (2007)

II.424 T. T. Carvalho, J. R. A. Fernandes, J. Perez de la Cruz, J. V. Vidal, N. A. Sobolev, F. Figueiras, S. Das, V. S. Amaral, A. Almeida, J. A. Moreira, and P. B. Tavares, Room temperature structure and multiferroic properties in $Bi_{0.7}La_{0.3}FeO_3$ ceramics, *J. Alloys Compd.* 554, 97 (2013)

II.425 Y. J. Wu, N. Wang, S. P. Gu, Y. Q. Lin, and X. M. Chen, Dielectric and magnetic properties of $Ba_5BiNiNb_9O_{30}$ ceramics, *Curr. Appl. Phys.* 11(3), s247 (2011)

II.426 A. R. Khan, G. M. Mustafa, S. K. Abbas, S. Atiq, M. Saleem, S. M. Ramay, and S. Naseem, Flexible ferroelectric and magnetic orders in $BiFeO_3/MnFe_2O_4$ nanocomposites to steer wide range energy and data storage capability, *Res. Phys.* 16, 102956 (2020)

II.427 M. M. Rhaman, M. A. Matin, M. A. Hakim, and M. F. Islam, Dielectric, ferroelectric and ferromagnetic properties of samarium doped multiferroic bismuth ferrite, *Mater. Res. Express* 6(12), 125080 (2019)

II.428 A. Mukherjee, S. Basu, P. K. Manna, S. M. Yusuf, and M. Pal, Giant magnetodielectric and enhanced multiferroic properties of Sm-doped bismuth ferrite nanoparticles, *J. Mater. Chem. C* 2(29), 5885 (2014)

II.429 M. Shariq, D. Kaur, V. S. Chandel, and M. A. Siddiqui, Electrical, surface morphology and magneto-capacitance properties of Pb free multiferroic $(BiFeO_3)_{1-x}(BaTiO_3)_x$ solid solutions, *Acta Phys. Pol. A* 127(6), 1675 (2015)

II.430 M. S. Wu, Z. B. Huang, C. X. Han, S. L. Yuan, C. L. Lu, and S. C.Xia, Enhanced multiferroic properties of $BiFeO_3$ ceramics by Ba and high-valence Nb co-doping, *Solid State Commun.* 152(24), 2142 (2012)

II.431 Y. A. Chaudhari, C. M. Mahajan, E. M. Abuassaj, P. P. Jagtap, P. B. Patil, and S. T. Bendre, Ferroelectric and dielectric properties of nanocrystalline $BiFeO_3$ multiferroic ceramics synthesized by solution combustion method (SCM), *Mater. Sci. Pol.* 31(2), 221 (2013)

II.432 S. D. Lakshmi and I. B. S. Banu, Multiferroism and magnetoelectric coupling in single-phase Yb and X (X=Nb, Mn, Mo) co-doped $BiFeO_3$ ceramics, *J. Sol-Gel Sci. Technol.* 89(3), 713 (2019)

II.433 C. Chakrabarti, Q. Fu, X. Chen, C. Li, B. Meng, Y. Qiu, and S. Yuan, Substitution driven enhancement of ferromagnetic, ferroelectric and leakage properties in multiferroic $0.7Bi_{1-x}Er_xFeO_3$–$0.3Bi_{0.5}Na_{0.5}TiO_3$ solid solutions, *J. Sol–Gel Sci. Technol.* 93(3), 587 (2020)

II.434 A. S. Priya, I. B. Shameem Banu, M. Shahid Anwar, and S. Hussain, Studies on the multiferroic properties of (Zr, Cu) co-doped $BiFeO_3$ prepared by sol–gel method, *J. Sol–Gel Sci. Technol.* 80(3), 579 (2016)

II.435 L. G. Wang, C. M. Zhu, L. Chen, C. L. Li, and S. L. Yuan, Room-temperature magnetoelectric coupling study of multiferroic $(1-x)(0.7BiFeO_3–0.3Bi_{0.5}Na_{0.5}TiO_3)–xCoFe_2O_4$ ceramics, *J. Sol-Gel Sci. Technol.* 82(1), 184 (2017)

II.436 P. Ganguly, Influence of ionic radius of rare-earths on the structural and electrical properties of $Ba_5RTi_3Nb_7O_{30}$ (R=rare-earth) ferroelectric ceramics, *J. Rare Earths* 33(12), 1310 (2015)

II.437 H. Dai, Z. Chen, T. Li, and Y. Li, Microstructure and properties of Sm-substituted $BiFeO_3$ ceramics, *J. Rare Earths* 30(11), 1123 (2012)

II.438 S. F. Mansour, N. I. Abu-Elsaad, and T. A. Elmosalami, Magnetoelectric and magnetic studies of the $Bi_{1-x}Ca_xFeO_3$ multiferrioc system, *Can. J. Phys.* 92(5), 389 (2014)

II.439 D. H. Wang, W. C. Goh, M. Ning, and C. K. Ong, Effect of Ba doping on magnetic, ferroelectric, and magnetoelectric properties in mutiferroic $BiFeO_3$ at room temperature, *Appl. Phys. Lett.* 88(21), 212907 (2006)

II.440 D. Kothari, V. R. Reddy, A.Gupta, V. Sathe, and A. Banerjee , Multiferroic properties of polycrystalline $Bi_{1-x}Ca_xFeO_3$, *Appl. Phys. Lett.* 91(20), 202505 (2007)

II.441 W. Luo, D. Wang, F. Wang, T. Liu, J. Cai, L. Zhang, and Y. Liu, Room-temperature simultaneously enhanced magnetization and electric polarization in $BiFeO_3$ ceramic synthesized by magnetic annealing, *Appl. Phys. Lett.* 94(20), 202507 (2009)

II.442 A. Mukherjee, S. Basu, P. K. Manna, S. M. Yusuf, and M. Pal, Giant magnetodielectric and enhanced multiferroic properties of Sm doped bismuth ferrite nanoparticles, *J. Mater. Chem. C* 2(29), 5885 (2014)

II.443 D. Nanda, P. Kumar, B. Samanta, R. Sahu, and A. Singh, Structural, dielectric, ferroelectric and magnetic properties of (BNT-BT)-NCZF composites synthesized by a microwave assisted solid-state reaction route, *J. Electron. Mater.* 48(8), 5039 (2019)

II.444 P. Bai, Y. Zeng, J. Han, Y. Wei, Y. Li, and M. Li, Effects of $Bi_2O_3–B_2O_3–ZnO$ glass additive on structure, ferroelectric and dielectric properties of $BiFeO_3$ ceramics, *Ferroelectrics* 555(1), 173 (2020)

II.445 G. Gong, J. Zhou, Y. Duan, R. Chen, N. Sun, Y. Wang, and Y. Su, Co-existence of room temperature ferromagnetic and ferroelectric propertiesin $Ba_4SmFe_{0.5}Nb_{9.5}O_{30}$ ceramics, *Ferroelectrics* 555(1), 231 (2020)

II.446 N. Sheoran, A. Kumar, V. Kumar, and A. Banerjee, Structural, optical, and multiferroic properties of yttrium Y^{3+}-substituted $BiFeO_3$ nanostructures, *J. Supercond. Nov. Mater.* 33(7), 2017 (2020)

II.447 V. S. Puli, A. Kumar, N. Panwar, I. C. Panwar, and R. S. Katiyar, Transition metal modified bulk $BiFeO_3$ with improved magnetization and linear magneto-electric coupling, *J. Alloys Compd.* 509(32), 8223 (2011)

II.448 P. Gupta, L. K. Meher, and R. N. P. Choudhary, Structural, dielectric, impedance and modulus spectroscopy of $BiLa_2TiVO_9$ ceramic, *Appl. Phys. A Mater. Sci. Process.* 126(3), 187 (2020)

II.449 R. F. Zhang, C. Y. Deng, L. Ren, Z. Li, and J. P. Zhou, Ferroelectric, ferromagnetic, and magnetoelectric properties of multiferroic $Ni_{0.5}Zn_{0.5}Fe_2O_4–BaTiO_3$ composite ceramics, *J. Electron. Mater.* 43(4), 1043 (2014)

II.450 P. Gupta, P. K. Mahapatra, and R. N. P. Choudhary, Structural, dielectric and electrical characteristics of lead-free ferroelectric ceramic: $Bi_2SmTiVO_9$, *J. Electron. Mater.* 47(9), 5458 (2018)

II.451 P. Gupta, R. Padhee, P. K. Mahapatra, R. N. P. Choudhary, Structural, dielectric, impedance and modulus spectroscopy of ferroelectric ceramics, *J. Mater. Sci. Mater. Electron.* 28(22), 17344 (2017)

II.452 M. Dhilip, K. Saravana Kumar, R. Ramesh Kumar, and V. Anbarasu, Intrinsic magnetic and ferroelectric behaviour of non-magnetic Al^{3+} ion substituted dysprosium iron garnet compounds, *J. Electron. Mater.* 48(12), 8243 (2019)

II.453 R. Rameshkumar, T. Ramachanadran, K. Natarajan, M. Muralidharan, F. Hamed, and V. Kurapati, Fraction of rare-earth (Sm/Nd)-lanthanum ferrite-based perovskite ferroelectric and magnetic nanopowders, *J. Electron. Mater.* 48(3), 8243 (2019)

II.454 G. Qian, C. Zhu, L. Wang, Z. Tian, C. Yin, C. Li, and S. Yuan, Enhanced ferromagnetic, ferroelectric, and dielectric properties in $BiFeO_3–SrTiO_3–Bi_{0.5}Na_{0.5}TiO_3$ ceramics, *J. Electron. Mater.* 46(11), 6717 (2017)

II.455 L. Singh, S. S. Yadava, B. C. Sin, U. S. Rai, K. D. Mandal, and Y. Lee, Comparative dielectric and ferroelectric characteristics of $Bi_{0.5}Na_{0.5}TiO_3$, $CaCu_3Ti_4O_{12}$, and $0.5Bi_{0.5}Na_{0.5}TiO_3–0.5CaCu_3Ti_4O_{12}$ electroceramics, *J. Electron. Mater.* 45(6), 2662 (2016)

II.456 S. R. Das, R. N. P. Choudhary, P. Bhattacharya, R. S. Katiyar, P. Dutta, A. Manivannan, and M. S. Seehra, Structural and multiferroic properties of La-modified $BiFeO_3$ ceramics, *J. Appl. Phys.* 101(3), 034104 (2007)

II.457 S. Thakur, K. Parmar, S. Sharma, and N. S. Negi, Structural, electric and ferroelectric properties of lead free $50Na_{0.5}Bi_{0.5}TiO_3–50CoFe_2O_4$ multiferroic particulate composite, *Integr. Ferroelectr.* 203, 37 (2019)

II.458 M. Dewan and S. B. Majumder, Investigations on the multifunctionality of bismuth iron oxide, *Trans. Indian Inst. Met.* 72(8), 2072 (2019)

II.459 X. Li, X. Wang, Y. Li, W. Mao, P. Li, T. Yang, and J. Yang, Structural, morphological and multiferroic properties of Pr and Co co-substituted $BiFeO_3$ nanoparticles, *Mater. Lett.* 90, 152 (2013)

II.460 Y. J. Yoo, J. S. Hwang, Y. P. Lee, J. S. Park, J. Y. Rhee, J. H. Kang, K. W. Lee, B. W. Lee, and M. S. Seo, Origin of enhanced multiferroic properties in Dy and Co co-doped $BiFeO_3$ ceramics, *J. Magn. Magn. Mater.* 374, 669 (2015)

II.461 A. Mukherjee, S. Basu, P. K. Manna, S. M. Yusuf, and M. Pal, Enhancement of multiferroic properties of nanocrystalline $BiFeO_3$ powder by Gd-doping, *J. Alloys Compd.* 598, 142 (2014)

II.462 M. S. Bernardo, T. Jardiel, M. Peiteado, F. J. Mompean, M. Garcia-Hernandez, M. A. Garcia, M. Villegas, and A. C. Caballero, Intrinsic compositional inhomogeneities in Bulk Ti-doped $BiFeO_3$: Microstructure development and multiferroic properties, *Chem. Mater.* 25(9), 1533 (2013)

II.463 Y. K. Jun, S. B. Lee, M. Kim, S. H. Hong, J. W. Kim, and K. H. Kim, Dielectric and magnetic properties in Ta-substituted $BiFeO_3$ ceramics, *J. Mater. Res.* 22(12), 3397 (2007)

II.464 K. M. Batoo, J. P. Labis, R. Sharma, and M. Singh, Ferroelectric and magnetic properties of Nd-doped $Bi_{4-x}FeTi_3O_{12}$ nanoparticles prepared through the egg-white method, *Nanoscale Res. Lett.* 7(1), 511 (2012)

II.465 K. Singh, R. K. Kotnala, and M. Singh, Study of electric and magnetic properties of $(Bi_{0.9}Pb_{0.1})(Fe_{0.9}Ti_{0.1})O_3$ nanomultiferroic system, *Appl. Phys. Lett.* 93(21), 212902 (2008)

II.466 A. Mukherjee, S. Basu, P. K. Manna, S. M. Yusuf, and M. Pal, Giant magnetodielectric and enhanced multiferroic properties of Sm doped bismuth ferrite nanoparticles, *J. Mater. Chem. C* 2(29), 5885 (2014)

II.467 D. Suastiyanti. S. Yatmani, and Y. N. Maulida, A chemical route to the synthesis of $Bi_{1-x}Mg_xFeO_3$ (x =0.1 and x =0.07) nanoparticle with enhanced electrical properties as multiferroic material, *Int. J. Engn. Technol. Manag. Res.* 5(6), 103 (2018)

II.468 S. Matteppanavar, S. Rayaprol, K. Singh, V. R. Reddy, and B. Angadi, Evidence for magneto-electric and spin–lattice coupling in $PbFe_{0.5}Nb_{0.5}O_3$ through structural and magneto-electric studies, *J. Mater. Sci.* 50(14), 4980 (2015)

II.469 O. M. Hemeda, A. Tawfik, D. E.El Refaey, A. H. El-Sayed, and Sh. Mohamed, Electric and magnetic properties of $[(NCZF)_{1-x}(Na(ac.ac))_x]$ nanocomposite, *Open J. Appl. Sci. (Faisalabad)* 7(10), 559 (2017)

II.470 H. Y. Dai, Z. P. Chen, T. Li, R. Z. Xue, and J. Chen, Structural and electrical properties of bismuth ferrite ceramics sintered in different atmospheres, *J. Supercond. Nov. Magn.* 26(10), 3125 (2013)

II.471 M. Atif, U. Younas, W. Khalid, Z. Ahmed, Z. Ali, and M. Nadeem, Impedance spectroscopy, ferroelectric and optical properties of cobalt doped $Zn_{1-x}Co_xO$ nanoparticles, *J. Mater. Sci. Mater. Electron.* 31, 5253 (2020)

II.472 S. K. Mohanty, D. P. Datta, B. Behera, H. S. Mohanty, B. Pati, and P. R. Das, Synthesis and dielectric spectroscopic study of lead-free ferroelectric ceramic $K_{0.5}Bi_{0.5}TiO_3NaNbO_3$, *J. Mater. Sci. Mater. Electron.* 31(4), 3245 (2020)

II.473 S. Manzoor, S. Husain, A. Somvanshi, and M. Fatema, Structural, thermal, dielectric and multiferroic investigations on $LaFeO_3$ composite systems, *J. Mater. Sci. Mater. Electron.* 31(10), 7811 (2020)

II.474 M. Y. Shami, M. S. Awan, and M. Anis-ur-Rehman, Phase pure synthesis of $BiFeO_3$ nanopowders using diverse prekursor via co-precipitation method, *J. Alloys Compd.* 509, 10139 (2011)

II.475 Y. A. Chaudhari, A. Singh, E. M. Abuassaj, R. Chatterjee, and S. T. Bendre, Multiferroic properties in $BiFe_{1-x}Zn_xO_3$ (x =0.1–0.2) ceramics by solution combustion method (SCM), *J. Alloys Compd.* 518, 51 (2012)

II.476 Md. R. Islam, R. H, Galib, A. Sharif, M. Hasan, Md. A. Zubair, and Md. F. Islam, Correlation of charge defects and morphology with magnetic andelectrical properties of Sr and Ta codoped $BiFeO_3$, *J. Alloys Compd.* 688, 1186 (2016)

II.477 S. Godara, N. Sinha, G. Ray, and B. Kumar, Combined structural, electrical, magnetic and optical characterization of bismuth ferrite nanoparticles synthesized by auto-combustion route, *J. Asian Ceram. Soc.* 2(4), 416 (2014)

II.478 P. Saxena, M. A. Dar, P. Sharma, A. Kumar, and D. Varshney, Structural, dielectric and ferroelectric properties of La and Ni codoped $BiFeO_3$, *AIP Conf. Proc.* 1728, 020307 (2016)

II.479 L. S, P. D. Babu, and S. Srinath, Effect of La doping on dielectric and magnetic properties of room temperature multiferroic $LuFeO_3$, *AIP Conf. Proc.* 1953, 120076 (2018)

II.480 A. S. Mahapatra, K. Mukhopadhyay, K. Mukhuti, and P. K. Chakrabartipabitra, Modulated magnetoelectric property of $BiFeO_3$ incorporated in $Co_{0.50}Fe_{0.50}Fe_2O_4$, *AIP Conf. Proc.* 1591, 445 (2014)

II.481 N. Kumar, N. Panwar, B. Gahtori, N. Singh, H. Kishan, and V. P. S. Awan, Structural, dielectric and magnetic properties of Pr substituted $Bi_{1-x}Pr_xFeO_3$ ($0\leq x \leq 0.15$) multiferroic compounds, *J. Alloys Compd.* 510(2), L29 (2010)

II.482 M. Ahmadzadeh, A. Ataie, and E. Mostafavi, The effects of mechanical activation energy on the solid-state synthesis process of $BiFeO_3$, *J. Alloys Compd.* 622, 548 (2015)

II.483 Sarkar, S. Mukherjee, and S. Mukherjee, Structural, electrical and magnetic behaviour of undoped and nickel doped nanocrystalline bismuth ferrite by solution combustion route, *Process. Appl. Ceram* 9(1), 53 (2015)

II.484 Z. Branković, D. Luković Golić, A. Radojković, J. Ćirković, D. Pajić, Z. Marinković Stanojević, J. Xing, M. Radović, G. Li, and G. Branković, Spark plasma sintering of hydrothermally synthesized bismuth ferrite, *Process. Appl. Ceram* 10(4), 257 (2016)

II.485 Z. Li, Z. Wang, R. Gao, W. Cai, G. Chen, X. Deng, and C. Fu, Dielectric, ferroelectric and magnetic properties of $Bi_{0.78}La_{0.08}Sm_{0.14}Fe_{0.85}Ti_{0.15}O_3$ ceramics prepared at different sintering conditions, *Process. Appl. Ceram.* 12(4), 394 (2018)

II.486 M. Počcučca-Nešić, Z. Marinković Stanojević, P. Cotič Smole, A. Dapčević, N. Tasić, G. Branković, and Z. Branković, Processing and properties of pure antiferromagnetic h-$YMnO_3$, *Process. Appl. Ceram.* 13(4), 427 (2019)

II.487 X. Qin, R. Xu, H. Wu, R. Gao, Z. Wang, G. Chen, C. Fu, X. Deng, and W. Ca, A comparative study on the dielectric and multiferroic properties of $Co_{0.5}Zn_{0.5}Fe_2O_4/0.8Sr_{0.2}TiO_3$ composite ceramics, *Process. Appl. Ceram.* 13(4), 349 (2019)

II.488 M. A. Matin, M. M. Haman, M. N. Hossain, F. A. Mozahid, M. A. Hakim, M. H. Rizvi, and M. F. Islam, Effect of preparation routes on the crystal purity and properties of $BiFeO_3$ nanoparticles, *Trans. Electr. Electron. Mater.* 20(6), 485 (2019)

II.489 X. Luo, H. Wang, R. Gao, X. Li, J. Zhang, and H. Ban, Effects of molar ratio on dielectric, ferroelectric and magnetic properties of $Ni_{0.5}Zn_{0.5}Fe_2O_4$–$BaTiO_3$ composite ceramics, *Process. Appl. Ceram* 14(2), 91 (2020)

II.490 M. M. Rhaman, M. A. Matin, M. N. Hossain, M. N. I. Khan, M. A. Hakim, and M. F. Islam, Ferromagnetic, electric, and ferroelectric properties of samarium and cobalt co-doped bismuth ferrite nanoparticles, *J. Phys. Chem. Solids* 147, 109607 (2020)

II.491 A. Sagdeo, P. Mondal, A. Upadhyay, A. K. Sinha, A. K. Srivastava, S. M. Gupta, P. Chowdhury, T. Ganguli, and S. K. Deb, Correlation of microstructural and physical properties in bulk $BiFeO_3$ prepared by rapid liquid-phase sintering, *Solid State Sci.* 18, 1 (2013)

II.492 K. Verma, M. K. Shamim, S. Kumar, and S. Sharma, Role of ferrite phase on the structural, ferroelectric and magnetic properties of $(1-x)$ BCT–xCZFO composites, *Mater. Chem. Phys.* 255, 123284 (2020)

II.493 F. Sehar, S. Anjum, Z. Mustafa, and S. Atiq, Coexistence of ferroelectric and ferromagnetic properties of Bi^{+3} substituted M-type barium hexaferrites, *J. Supercond. Nov. Mater* 33(7), 2073 (2020)

II.494 S. Taran, B. Biswas, and H. D. Yang, Structural, magnetic, and ferroelectric properties of Zr-doped $Y_{1-x}Zr_xCrO_3$ bulk polycrystalline system, *J. Supercond. Nov. Mater* 33(8), 2483 (2020)

II.495 K. Parida and N. P. Choudhary, Structural, electrical, and magnetic characteristics of chemically synthesized lead-free double perovskite: $BiMgFeCeO_6$, *J. Supercond. Nov. Mater* 33, 3493 (2020)

II.496 K. S. Samantaray, R. Amin, E. G. Rini, and S. Sen, Fe-doped $Na_{0.47}Bi_{0.47}Ba_{0.06}Ti_{0.98-x}V_{0.02}Fe_xO_3$: Structure correlated vibrational, optical and electrical properties, *J. Alloys Compd.* 849, 156503 (2020)

II.497 M. Sufyan, Z. Lu, Z. Chen, X. Wang, and S. K. Abbas, Multiferroic characterization of 3-phase $(1-x)$ $(0.7BiFeO_3$–$0.3CoFe_2O_4)$–xPb(Zr, Ti)O_3 composites withmagnetically driven polarization, *J. Alloys Compd.* 849, 156681 (2020)

II.498 S. Satapathy, G. Prudhvi, A. A. Khan, P. Deshmukh, A. Ahlawat, K. R. S. P. Meher, and A. K. Karnal, $MgFe_2O_4/(Ba_{0.85}Ca_{0.15})$ $(Zr_{0.1}Ti_{0.9})O_3$ lead free ceramic composite: A study onmultiferroic and magnetoelectric coupling properties at room temperature, *J. Alloys Compd.* 853, 156960 (2021)

II.499 S. Sharma, J. M. Siqueiros, and O. R. Herrera, Structural, dielectric, ferroelectric and optical properties of Er doped $BiFeO_3$ nanoparticles, *J. Alloys Compd.* 853, 156979 (2021)

References for Part III

III.136 M. Liu, H. Yu, and Z. Liu, A pair of homochiral trinuclear Zn(II) clusters exhibiting unusual ferroelectric behaviour at high temperature, *CrystEngComm* 21(14), 2355 (2019)

III.137 L. Yu, X.-H. Hua, X.-J. Jiang, L. Qin, X.-Z. Yan, L.-H. Luo, and L. Han, Histidine-controlled homochiral and ferroelectric metal-organic frameworks, *CrystEngComm* 15, 687 (2015)

III.138 Y. Wang, Y. Qi, V. A. Blatov, J. Zheng, Q. Li, and C. Zhang, Two new zinc(II) coordination complexes with helix characteristics showing both interpretation and self-catenation features: A platform for the synthesis of chiral and catenated structures assembled by lengh-modulated dicarboxylates, *Dalton Trans.* 43, 15151 (2014)

III.139 J. Hu, L. Huang, X. Yao, L. Qin, Y. Li, Z. Guo, H. Zheng, and Z. Xue, Six new metal-organic frameworks based on polycarboxylate acids and V-shaped imidazole-based synthon: Synthesis, crystal structures, and properties, *Inorg. Chem.* 50(6), 2404 (2011)

III.140 H. Zhou, G.-X. Liu, X.-F. Wang, and Y. Wang, Three cobalt(II) coordination polymers based on V-shaped aromatic polycarboxylates and rigid bis(imidazole) ligand: Synthesis, crystal structures, physical properties and theoretical studies, *CrystEngComm* 15, 1377 (2013)

III.141 H. Zhao, Q. Ye, Z.-R. Qu, D.-W. Fu, R.-G. Xiong, S. D. Huang, and P. W. H. Chan, Huge deuterated effect on permittivity on a metal-organic frameworks, *Chemistry* 14(4), 1164 (2014)

III.142 M. D. Zhang, Y. L. Li, Z. Z. Shi, H. G. Zheng, and J. Ma, A pair of 3D enantiotopic zinc(II) complexes based on two asymmetric achiral ligands, *Dalton Trans.* 46(43), 14779 (2017)

III.143 J. K. H. Hui, H. Kishida, K. Ishiba, K. Takemasu, M. Morikawa, and N. Kimizuka, Ferroelectric coordination polymers self-assembled from mesogenic Zinc(II) porphyrin and dipolar bridging ligands, *Chemistry* 22(40), 14213 (2016)

III.144 X.-Q. Yao, J.-S. Hu, M.-D. Zhang, L. Qin, Y.-Z. Li, Z.-J. Guo, and H.-G. Zheng, Chiral and noncentrosymmetric metal−organic frameworks featuring a 2D→3D parallel/parallel inclined subpolycatenation, *Cryst. Eng. Comm.* 13, 3381 (2013)

III.145 Q. Huang, J. Yu, J. Gao, X. Rao, X. Yang, Y. Cui, C. Wu, Z. Zhang, S. Xiang, B. Chen, and G. Qian, Two chiral nonlinear optical coordination networks based on interwoven two-dimensional square grids of double helices, *Cryst. Growth Des.* 10(10), 5291 (2010)

III.146 R. Kumari, R. Seera, A. De, R. Ranjan, and T. N. G. Row, Organic multi-functional materials: Second harmonic, ferroelectric and dielectric properties in N-benzylideneaniline analogues, *Cryst. Growth Des.* 19(10), 5934 (2019)

III.147 G. X. Wang, Z. Xing, L. Z. Chen, and G. F. Han, A ferroelectric olefin–copper(I) organometallic polymer with flexible organic ligand(R)-MbVBP, *J. Mol. Struct.* 1091, 16 (2015)

III.148 M. Yu, F. Xuan, J. Lia, and G.-X. Liu, Four Zinc(II) coordination polymers with dicarboxylate and Tri(4-pyridylphenyl)amine ligand: Syntheses, crystal structures and physical properties, *J. Mol. Struct.* 1199(5), 127005 (2020)

III.149 D. Feng, Y. Che, and J. Zheng, An acentric lanthanide-formate complex: Synthesis, structure, ferroelectric and magnetic properties, *J. Rare Earths*30(8), 798 (2012)

III.150 D.-W. Fu, H.-Y. Ye, Q. Ye, K.-J. Pan, and R.-G. Xiong, Ferroelectric metal–organic coordination polymer with a high dielectric constant, *Dalton Trans.* 7, 874 (2008)

III.151 Kumari, R. Seera, A. De, R. Ranjan, and T. N. Guru Row, Organic multifunctional materials: Second harmonic, ferroelectric, and dielectric properties in *N* benzylideneaniline analogues, *Cryst. Growth Des.* 19(10), 5934 (2019)

III.152 X. Xu, M. Liu, and Z. Liu, Crystal structures and ferroelectric properties of homochiral metal organic frameworks constructed from a single chiral ligand, *Dalton Trans.* 49(30), 10402 (2020)