

Diffraction Type	Diffractometer	Radiation Wavelength / Å	Data Collection Temperature / K	Nominal mole fraction of La in bulk	Nominal Bulk Composition	Phase Composition	Pyrochlore lattice parameter / Å	Monoclinic 'a' lattice parameter / Å	Monoclinic 'b' lattice parameter / Å	Monoclinic 'c' lattice parameter / Å	Monoclinic 'β' lattice parameter / °
Neutron	POLARIS, ISIS	Variable (TOF)	298	0	Y ₂ Ti ₂ O ₇	Pyrochlore	10.09397(3)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.025	Y _{1.95} La _{0.05} Ti ₂ O ₇	Pyrochlore	10.1020(1)	-	-	-	-
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.05	Y _{1.9} La _{0.1} Ti ₂ O ₇	Pyrochlore	10.11355(3)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.05	Y _{1.9} La _{0.1} Ti ₂ O ₇	Pyrochlore	10.1048(1)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.075	Y _{1.85} La _{0.15} Ti ₂ O ₇	Pyrochlore	10.11037(4)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.1	Y _{1.8} La _{0.2} Ti ₂ O ₇	Pyrochlore	10.10901(4)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.125	Y _{1.75} La _{0.25} Ti ₂ O ₇	Pyrochlore	10.11306(6)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.15	Y _{1.7} La _{0.3} Ti ₂ O ₇	Pyrochlore	10.11981(6)	-	-	-	-
X-ray	Bruker d8 'Advance'	1.54058	298	0.175	Y _{1.65} La _{0.35} Ti ₂ O ₇	Pyrochlore	10.12344(6)	-	-	-	-
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.2	Y _{1.6} La _{0.4} Ti ₂ O ₇	P + M	10.13428(4)	7.762(2)	5.5118(8)	13.002(5)	98.7(1)
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.45	Y _{1.1} La _{0.9} Ti ₂ O ₇	P + M	10.13077(5)	7.7592(3)	5.5115(2)	12.9953(6)	98.62(1)
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.8	Y _{0.4} La _{1.6} Ti ₂ O ₇	P + M	10.1347(8)	7.7615(3)	5.5133(2)	13.0011(6)	98.60(1)
X-ray	Bruker d8 'Advance'	1.54058	298	0.825	Y _{0.35} La _{1.65} Ti ₂ O ₇	P + M	10.1315(4)	7.7761(2)	5.5219(1)	13.0062(4)	98.573(9)
X-ray	Bruker d8 'Advance'	1.54058	298	0.85	Y _{0.3} La _{1.7} Ti ₂ O ₇	P + M	10.132(1)	7.7765(3)	5.5224(2)	13.0065(5)	98.628(7)
X-ray	Bruker d8 'Advance'	1.54058	298	0.875	Y _{0.25} La _{1.75} Ti ₂ O ₇	P + M	10.115(2)	7.7756(4)	5.5226(3)	13.0015(7)	98.586(9)
X-ray	Bruker d8 'Advance'	1.54058	298	0.9	Y _{0.2} La _{1.8} Ti ₂ O ₇	Monoclinic	-	7.7821(4)	5.5266(3)	13.0058(7)	98.62(1)
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.925	Y _{0.15} La _{1.85} Ti ₂ O ₇	Monoclinic	-	7.7865(2)	5.5308(2)	13.0051(6)	98.62(1)
X-ray	Bruker d8 'Advance'	1.54058	298	0.925	Y _{0.15} La _{1.85} Ti ₂ O ₇	Monoclinic	-	7.7889(4)	5.5319(3)	13.0091(9)	98.65(2)
X-ray	Bruker d8 'Advance'	1.54058	298	0.95	Y _{0.1} La _{1.9} Ti ₂ O ₇	Monoclinic	-	7.7953(2)	5.5369(2)	13.0111(5)	98.62(1)
Neutron	POLARIS, ISIS	Variable (TOF)	298	0.975	Y _{0.05} La _{1.95} Ti ₂ O ₇	Monoclinic	-	7.8007(2)	5.5403(1)	13.0072(5)	98.63(1)
X-ray	Bruker d8 'Advance'	1.54058	298	0.975	Y _{0.05} Ti _{1.95} Ti ₂ O ₇	Monoclinic	-	7.8040(3)	5.5423(2)	13.0150(7)	98.65(1)
Neutron	POLARIS, ISIS	Variable (TOF)	298	1	La ₂ Ti ₂ O ₇	Monoclinic	-	7.8090(1)	5.54608(7)	13.0143(2)	98.658(4)