

3.2. Photorefractive Crystals

3.2.1. SBN Photorefractive Crystals



Strontium-Barium Niobate is an excellent optical and photorefractive material. Nominally pure and doped by Ce, Cr, Co, Fe. SBN crystals of different compositions are used in electro-optics, acousto-optics, photorefractive non-linear optics. A new growing technique (Stepanov Method)(*) provides excellent optical quality single crystals, free of growth striations, inclusions and other inhomogeneities, as well as definite cross section and linear dimensions up to 80 mm. SBN crystalline elements meet the requirements for different applications. Based on this unique crystal growing technique, large high quality SBN optical elements and photorefractive cells are available.

Code	Name	Mat.	Type	Height (mm)	Width (mm)	Len. (mm)	Description	Price	Curr.
SBN11	Crystal	SBN	SBN61 (nominally un-doped) crystal	5	5	0.5	Crystal has rough polish on the two 5*5mm faces .	147,000	JPY
SBN6	Crystal	SBN	SBN61 (nominally un-doped) crystal	5	5	1	Crystal has rough polish on the two 5*5mm faces.	132,000	JPY
SBN12	Crystal	SBN	SBN61 Doped with 0,1 wt% CeO2	5	5	5	Four faces polished, poled.	201,000	JPY
SBN5	Crystal	SBN	SBN75 (undoped) crystals	5	5	5	All six faces polished and poled.	258,000	JPY
SBN3	Crystal	SBN	SBN61, 0.75wt% La2O3 + 0.002wt% CeO2 doping	5	7.5	5	Crystal is poled and with all faces optical polished.	354,000	JPY
SBN2	Crystal	SBN	SBN: 60: 0.002 wt.%CeO2	5	10	5	Crystal is poled and with all faces optical polished.	447,000	JPY
SBN9	Crystal	SBN	SBN:61: 0.002wt.%CeO2	5	20	5	All surfaces polished, with electrodes.	657,000	JPY
SBN1	Crystal	SBN	SBN75, Cerium doping 0.015 wt% CeO2	7.5	6.5	7.5	All six faces polished and Crystal poled.	366,000	JPY
SBN13	Crystal	SBN	SBN60 Doping CeO2 0.08 wt	8	8	8	four faces polished, "C" axis on the two unpolished faces.	366,000	JPY
SBN14	Crystal	SBN	SBN61 crystal, 0.002% Ce doping	10	5	5	Crystal cut/polished suitable for laser application on the two surfaces.	435,000	JPY
SBN8	Crystal	SBN	SBN61 Doped with 0,02 wt% CeO2	14.8	6	5	6 faces polished.	492,000	JPY
SBN4	Crystal	SBN	SBN60: Ce doped 0.01 wt % CeO2 crystal	20	5.5	20	Unpoled, unpolished.	855,000	JPY
SBN15	Crystal	SBN	SBN60 crystals, 0.01 wt % CeO2	20	20	1.5	Crystal polished on 20*20mm fa	672,000	JPY
SBN10	Crystal	SBN	SBN doped with cerium, 0.002% wt. CeO2	23	5	5	All surfaces polished, with electrodes.	684,000	JPY
SBN7	Crystal	SBN	SBN:60 doped with cerium, 0.002% wt. CeO2	25	5	5	All surfaces polished, uncoated.	825,000	JPY