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Influx of Bis 2 Amino Pyridinium Maleate with Acetone

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Abstract: Bis 2 Amino Pyridinium Maleate (B2APM) crystals are NLO in nature and are grown by solution growth method, since NLO materials are widely used for number of variety of applications such as ease of fabricating, high stability and wide range of transparency of light; they are proposed to be grown as the titled specimen. The single XRD data confirms that this crystal is having a as $21.760 \,\text{Å}$, b as $23.555 \,\text{Å}$, c as $5.626 \,\text{Å}$, $\alpha = \beta = \gamma = 900$ and the crystal is orthorhombic in nature, Fdd2 is the space group of Bis 2 Amino Pyridinium Maleate crystals. Structure is the combination of 2C5H7N2+.C4H2O4-.

The wavelength from fluorescence emission is 403 nm and is in the range of visible spectrum.

Keywords: B2APM, XRD, NLO ...

1. EXPERIMENTAL

The B2APM was prepared by suspend 2-aminopyridine and maleic acid in 2:1 molar ratio in water at 100oC. Crystals of B2APM were acquired by slow evaporation of the solvent at the room temperature.

The reaction mechanism is

$$2C_5H_6N_2 + C_4H_4O_4 \rightarrow 2C_5H_7N_2^+.C_4H_2O_4^{-2}$$

2. Influx

Influx is measured by Acetone in B2APM crystals and is found to be 2.5869 microns

3. CONCLUSION

B2APM crystals are grown by slow evaporation method and here the grown material is subjected to XRD, NLO and FL and from that it is orthorhombic in nature. The single XRD data confirms that this crystal is having a as 21.760 Å, b as 23.555 Å, c as 5.626 Å, $\alpha = \beta = \gamma = 900$. The influx is 2.5869 microns

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