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Raman spectroscopy of Li₂SrNb₂O₇ ceramic for wireless communication

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Dielectric materials are having an active role in satellite communication system. These materials are key for development of the low-loss and temperature stable resonators and filters for the communication. High dielectric constant is required for miniaturization of wireless systems. Nowadays, Perovskites structure related materials are being studied for this application. $Li_2SrNb_2O_7$ compound was synthesized by conventional solid state reaction method. This compound was found to crystallize in orthorhombic structure at room temperature. The structure of this compound belongs to the Ruddlesden-Popper (RP) structure. The phase transition in the $Li_2SrNb_2O_7$ compound was studied with the help of Raman spectroscopy.

Biography

Santosh Kumar Singh has completed his MSc in Physics from Indian Institute of Technology Delhi, India. He is currently a PhD student under the supervision of V R K Murthy. His research is centered on Microwave Dielectric Materials.

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