## Abstract Submitted for the OSF16 Meeting of The American Physical Society

Thermoluminescence during phase transition POONEH SAA-DATKIA, JIANFENG JI, KSENIJA GLUSAC, FARIDA SELIM, Bowling Green State Univ — Low-temperature thermoluminescence (TL) has been applied to investigate the behavior of red emission in SrTiO<sub>3</sub>bulk single crystals during phase transition. We observed a TL peak close to the phase transition temperature which makes the peak very narrow in terms of temperature and wavelength. Also, different heating rates have been used to study the unusual behavior for kinetics of TL process in SrTiO<sub>3</sub>. The measurements reveal that by increasing the heating rate the TL peak shifted to the lower temperatures which is not commonly observed in other materials.

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Date submitted: 12 Sep 2016 Electronic form version 1.4