

## Pressure Dependence of Nernst Effect for $\text{La}_{2-x-y}\text{Nd}_y\text{Sr}_x\text{CuO}_4$

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Anomalous Nernst effect well above  $T_c$  in high- $T_c$  cuprates is now a well-known experimental result, and it has long been discussed as a clue to the mechanism of superconductivity. At present, there are considered to be two explanations for it. One is that the large Nernst signal is attributed to the movement of vortices which survives far above  $T_c$ <sup>1</sup>. The other is that Nernst signal is enhanced by stripe order<sup>2</sup>.

We have previously measured the Nernst effect of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  with controlling the strength of the stripe order by Nd-doping and found that the stabilization of the stripe order enhances the Nernst signal<sup>3</sup>. Here, we measured pressure dependence of the Nernst effect to confirm the above result. Hydrostatic pressure is known to quite effectively control the stripe strength with using the same sample<sup>4</sup>. In the static pressure, we found the enhancement of the Nernst signal below superconducting fluctuation temperature  $T_{fl} \sim 60\text{K}$ . This indicates that the suppression of the stripe strength by applying pressure leads to the enhancement of the superconducting fluctuation. On the other hand, upturn of Nernst signal around 150K could be considered to be the temperature where fluctuation of the stripe order develops.

<sup>1</sup>Z. A. Xu et al., Nature, **406** (2000) 486

<sup>2</sup>Olivier Cyr-Choinière et al., Nature, **458** (2009) 743

<sup>3</sup>T. Fujii et al., Physica C, **470** (2010) S21

<sup>4</sup>S. Arumugam et al., Phys. Rev. Lett., **88** (2002) 247001