

PLCCO and NCCO not as different as previously thought
both reduce gap with annealing. PLCCO just happens to
be fully gapped in SC phase.

SC fraction. \rightarrow cannot do

- $\Delta Q_w \rightarrow$ less temp difference than χ'' , if any
fluctuations seems to be stickly around?
remove
detailed balance

biased opinion: resonance isn't all. Name resonance comes
from weak-coupling approach of metals

Martin Greven's group: gap size super tiny
Spin-gap upper limit SC order by temp.
 \Rightarrow it is a suppression or low-energy flc.

Igor paper: spin-gap limited superconductivity.
suppression of fluctuations

PRL 96 137002 (2006) Motayama

gap size? where graph crosses over

Igor: disordered SrCuO_2 when doped, a pseudogap appears
Suppression of low-energy spectral weight by disorder. By annealing
you get rid of disorder and allow for spin pairing

PRL 067204 (2013)

i.e. disorder we need low energy spin fluctuations.

charge carriers are delicate.

hole-doped: holes segregate \rightarrow spin/charge modulation
electrons remain commensurate. Suppress T_c in general
compared to hole-dop.

challenge getting mobile carriers
in this system

ARMEDLYS defects out
(carrier density and
mobility affected?)

transport studies done on
AG/SC Nd₂O₃?

at lower energy, there might be a suppression at T_c .
but at lower temperature is now only relevant, get out of reach

YCCO thermal displacement XRD study \rightarrow apical oxygens
defects
this process can reduce mobile carriers
over reducing Nd₂O₃ coming out (Dai)

Cu³⁺ present like Cu₂-Sharp.

up left: why pseudogap filled with $2h \rightarrow 27h$: thermal activation
figure
 \Rightarrow no long-range spin wave due to suppression
excitations
AG impurity
— appears as a gap.
A(G): no SC, no magnetic order \rightarrow is it possible to
have fluctuation with constant form
like chain cuprate
↓ hinder
in form
SCWP? of a
gap