

Abstract Submitted  
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**Resonant Ultrasound study of underdoped single crystal YBCO cuprates** ARKADY SHEKHTER, VICTOR FANELLI, NHMFL, Pulsed Field Facility, LANL, Los Alamos, NM, SCOTT RIGGS, Stanford University, Stanford, CA, YOKO SUZUKI, JON B. BETTS, ALBERT MIGLIORI, NHMFL, Pulsed Field Facility, LANL, Los Alamos, NM, GREG BOEBINGER, NHMFL, FSU, Tallahassee, FL, BRAD RAMSHAW, RUIXING LIANG, WALTER HARDY, DOUG BONN, UBC, Vancouver, Canada — We measure elastic constants and ultrasound attenuation in ultra-high quality underdoped YBCO cuprate single crystal samples. We observe a phase transition at the pseudogap temperature and reveal additional phase structure inside the pseudogap phase.

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