Abstract Submitted
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Observing the first billion years of universe. V. TILVI, Arizona State University, C. PAPOVICH, Texas AM, S. FINKELSTEIN, UT Austin, J. LONG, Texas AM, M. SONG, UT Austin, A. KOEKEMOER, STScI, M. DICKINSON, NOAO, H. FERGUSON, STScI, M. GIAVALISCO, UMASS, B. MOBASHER, UC Riverside, S. MALHOTRA, J. RHOADS, Arizona State University — Epoch of reionization– one of the major milestones in the history of the universe when the universe transitioned from a completely neutral medium to an ionized phase, occurred within the first billion years. However, our knowledge about this epoch—how and when did this transition occur, remains limited. To probe this epoch, we have obtained very sensitive spectroscopic observations of galaxies within the first 800 Myrs after the Bigbang. Our results suggest that by redshift ˜8 (about 650 Myrs after the Bigbang), the universe is significantly neutral, and the transition from a neutral to an ionized universe occurs over a very short timescale of ˜300 Myrs.

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