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Cool Side of Galaxy Evolution at High Redshift

The peak of cosmic star formation rate density in the Universe appears to be observed around redshift z 2. It is likely that many young galaxies could experience intense starbursts in this era. Soon after the starburst phase, the superwind activity could occur, causing a shocked gaseous shell around them. Such a shell could evolve to the HI-dominated cool gaseous shell that may be responsible for the origin of damped Lyman alpha absorption systems (DLAs) or Lyman limit absorption systems (LLSs) at high redshift. We discuss this superwind-driven formation model for both DLAs and LLSs (see Taniguchi and Shioya 2001, ApJ, 547, 146). We also discuss that this model will be examined by future ALMA observations.