

Abstract Submitted
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Exploring HETDEX Pilot Survey Lyman-alpha Emitters with Spectral Energy Distribution Fitting ALEX HAGEN, ROBIN CIARDULLO, CARYL GRONWALL, JOANNA BRIDGE, GREGORY ZEIMANN, Pennsylvania State University, HETDEX TEAM — We use photometry spanning from the rest-frame UV to the rest-frame NIR to fit the individual spectral energy distributions (SEDs) of 67 bright Ly-alpha emitting galaxies (LAEs) discovered in the HETDEX Pilot Survey. We find that bright LAEs in the redshift range $1.9 < z < 3.5$ are quite heterogeneous. Our LAE masses span more than three orders of magnitude and are distributed in a manner that suggests that the objects are drawn in an almost uniform manner from the underlying galaxy mass function. This diversity is also reflected in the LAEs' dust content: while most of our objects are dust poor, some of the more massive LAEs are dust-rich, with differential extinctions as large as $E(B-V) \sim 1.2$. We find no significant correlation between half-light radius and stellar mass but we show that the Ly-alpha escape fraction does depend on mass, with low-mass systems being more efficient Ly-alpha emitters. Finally, we present evidence which suggests that there is an upper limit to the mass-specific star formation rates of Ly-alpha emitting galaxies.

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