X23b First Demographics of Very Bright Lyα Emitters at $z \sim 6-7$ Uncovered by the Subaru HSC Narrowband Data

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We present the results of spectroscopic observations for $z \sim 6-7$ bright Lya emitters (LAEs) identified with the $\sim$35 deg^2 narrowband (NB) imaging data of the Subaru/HSC SSP survey. Our NB imaging data is about an order of magnitude larger than any other surveys for $z \sim 6-7$ LAEs conducted to date. Exploiting the largest NB imaging data, we obtain 28 very bright LAE candidates with log $L_{\mathrm{Ly}\alpha} \gtrsim 43$ erg/s that are similar to Himiko and CR7. Our on-going Subaru/FOCAS optical spectroscopy have so far confirmed 12 objects with asymmetric Lya lines, and our subsequent Subaru/MOIRCS NIR spectroscopy cover UV nebular emission lines, C IV1548, He II1640, and O III]1661,1666, for three very bright LAEs with the spectroscopic redshifts. Combining spectroscopic samples from our HSC and previous Suprime-Cam studies, we make the first census of very bright LAEs at $z \sim 6-7$. We discuss the formation mechanisms of very bright LAEs at $z \sim 6-7$ with the number fraction in conjunction with Lya radial profiles and line ratios of the UV nebular emission.

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