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CEPC linac design

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Circular Electron-Positron Collider (CEPC) is a 100 km ring e+ e- collider for a Higgs factory. The injector of CEPC is composed of linac and booster. The linac is a normal conducting S-band linac with frequency in 2856.75 MHz and provide electron and positron beam at an energy up to 10 GeV with bunch charge larger than 1.5 nC and repetition frequency in 100 Hz. The linac design will be detailed discussed, including electron bunching system, positron source design, electron linac and positron linac. Positrons are generated using a 4 GeV electron beam with bunch charge 10 nC hit tungsten target and one preliminary damping ring design will be presented.

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