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## Design of a 250 linac injector for the Southern Advanced Photon Source

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The Southern Advanced Photon Source (SAPS) is a 4th generation storage ring based light source under design started several years ago, which is planned to be constructed at Guangdong province at China. The equilibrium emittance of the storage ring will be below 100 pm.rad and the beam energy is determined to be 3.5 GeV. During the past two years, the nominal current of the storage ring was increased from 200 to 500 mA, so the injector system has to provide more bunch charge. Besides, the injection beam energy for the booster was increased from 150 to 250 MeV, which means two more accelerating cavities have to be added. In this paper, the update of the linac injector is presented, which consists of a thermionic electron gun, a bunching system, a 200 MeV linac. The beam transfer line from linac to booster is also presented

### Funding Agency

### Footnotes

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Yes

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