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The status of CEPC AHCAL R&D

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Circular Electron Position Collider(CEPC) is aimed at being Higgs and Z bosons factory and precisely measuring the mass of Higgs. High granularity calorimeter which is based on particle flow algorithm(PFA) could achieve the jet energy resolution 3%~4%. One proposal of Hadronic Calorimeter(HCAL) is Analog HCAL(AHCAL) consists of stainless as absorber and scintillator as active layer. This presentation would introduce the progress of it. Including the optimization of detector cell from distinguishing the minimum cluster based on simulation and comparing the light output and uniformity by experiment. Also we had some measurements of scintillators and they can satisfy the requirement of massively production. Effective and fast ways of integrating the detector cells are under development such as automatic packaging machine and pasting experiments. Some merged readout of detector cells had some preliminary result and it was proved a feasible method to reduce the number of electronic channels. Also the construction of a AHCAL prototype has been started.

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