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## Thermophilic Cellulases

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### PURPOSE OF THE ABSTRACT

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The hyperthermophilic Archaea were collected from deep-sea in extreme environment and their hyperthermophilic enzymes have been characterized. Cellulose related biomass produced from plants is the most abundant organic compound on earth. The technology for the biomass to produce fermentable sugars holds the key to the application of biomass. Cellulase is an enzyme involved in the degradation of beta-glucan cellulose biomass. Thermophilic cellulases would be particularly useful in the industrial applications for the biomass. From the hyperthermophilic Archaea, hyperthermophilic cellulases have also been cloned and characterized [1-3]. In addition thermophilic cellulases from fungi have been constructed with protein engineering method [5,6]. These enzymes have the potential for the biomass saccharification at high temperature. The presentation will cover the function and construction of the thermophilic cellulases.

### References

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## FIGURES

FIGURE 1

FIGURE 2

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### KEYWORDS

cellulase | enzyme | thermophiles | protein engineering

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### BIBLIOGRAPHY