

Thermotolerance of hyperthermophiles under simulated hydrothermal vent conditions

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Using a newly-developed flow-apparatus simulating a submarine hydrothermal circulation, we studied the second-time-order thermotolerances of hyperthermophilic *Thermococcus* strain Tc-1-95, isolated from a superheated hydrothermal fluid in the Central Indian Ridge deep-sea hydrothermal field. Our results showed that T. strain Tc-1-95 is thermotolerant up to 114 C at 0.5 MPa and that increasing the pressure from 0.5 to 25 MPa raises by 4 C the thermotolerant limit of T. strain Tc-1-95.

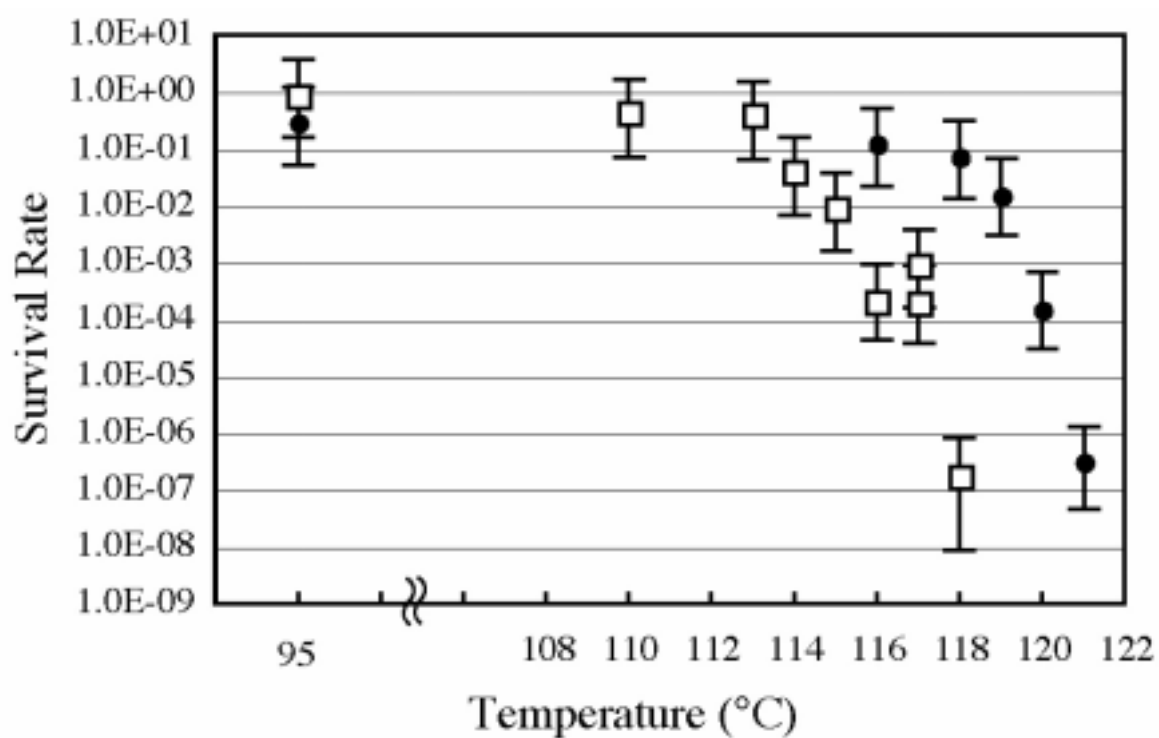


図 1. *Thermococcus* strain Tc-I-95の耐熱性。□:0.5 MPa、●:25 MPa。