Stable carbon isotopic composition of the Sulfolobus sp. strain

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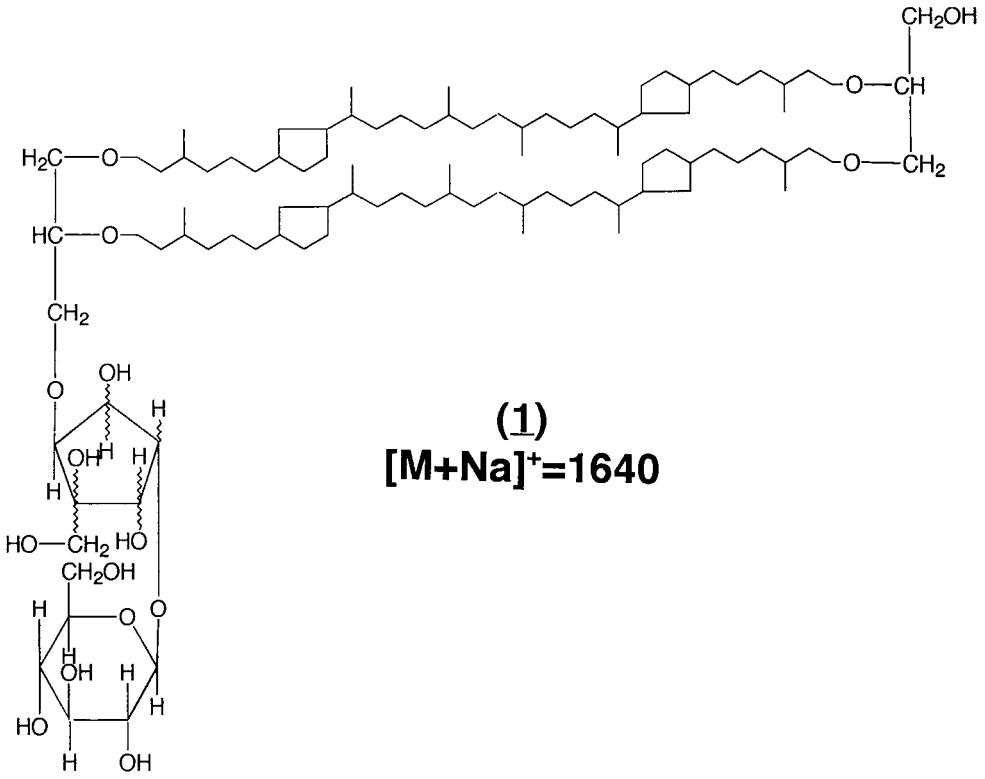
We have isolated a thermoacidophilic strain and identified it as Sulfolobus sp. The strain contains glucopyranosylcalditoglycerocaldarchaeol as the main component of its lipids. We determined the Delta13C (PDB) of the biomass in heterotrophic case. The process; cultivation - CO2 preparation -13C measurement, are repeated three times and the Delta13C were determined as -17.73, -17.72, -17.69 per mil. It indicates that the strain has almost unique Delta13C under the condition. The Delta13C of yeast extract, the carbon source, is -20.74 per mil. The biomass have heavier Delta13C than the carbon source and the DeltaDelta13C is +3.03per mil. It suggests that the strain utilizes an isotopically heavy carbon source, as the marine planktonic archaea.



(1)

$[M+Na]^+$=1640