الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي و البحث العلمي
Université Abou Bekr Belkaid
Tlemcen Algérie
جامعة أبي بكر بلقايد
تلمسان الجزائر

Titre :

Desulfocurvus vexinensis g·en. nov., sp. nov., a sulfate-reducing bacterium isofated from a deep subsurface aquifer

Auteur :

KLOUCHE Nihel

Résumé :

A novèl anaerobie, chemo-org<lnotrophic bacteriurp, designated VNs36 r, was isolated from that c;ollected water from a deep saline aqJ.Jifer used for underground gas storage at a 830 m in the Paris Basin, France. Cells were curved motile rods or vibrios (3.0-5.0x0.6 Strain VNs36T grew at temperatures between 20 and 50 •c (optimum 37 •c) and at pH
between 5.0 and 9.0 (optimum 6.9). lt did not require salt for growth, but tolerated up to 20 NaCII-1 (optimum 2 g rJ). ln the presence of sulfate, strain VNs36J used lactate, formate pyruvate as carbon and energy sources. The main fermentation products from lactate were acetate, H2 and C02• Sulfate, thiosulfate and sulfite wer.e used a.s electron acceptors. :but
sulfur. The genëmic ONA G+C content of.strain VNsssr was 67.2 mol%. Phylog13netic of the 16S rRNA gene·sequence indicated thal strain VNs36 T was affiliated with the family OesulfovJbrionaceae within the class· Deltaproteobacteria. On the basis of 16S rRNA gene
sequence comparist>ns, ONA G + C content and the absence of desulfoviridin in cell.extracts., proposed thal strain VNs36 r be asslgned to a new genus, Desulfocurvus gen. nov., as a representative of a novel species, Oesulfocwrvus vexinensis sp. nov. The type species of
genus is Oesulfocurvus vexinensis With the type strain VNs36 T

Mots Clés :

Sulfate, underground gas storage

Revue :

International journal of Systematic and Evolutjonary Microbtology (2009), 59, 31 00-3·1 04