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# METHANOGENESIS FROM RUMEN FLUID FORMULATIONS BY A *Methanococcus maripaludis* IB1 PREVALENT IN THE FAECES OF YAK FROM HISPER GLACIER

**Bashir Ahmad*[1], Aamer Hamid[1], Imran Javed[2], Muhammad Ishtiaq Ali[3], Pir Bux Ghumro[4]**

*[1]Department of Environmental Sciences (Biotechnology), International Islamic University, Islamabad, Pakistan; [2]Department of Dairy Technology, University of Veterinary and Animal Sciences, Lahore, Pakistan; [3]Department of Microbiology, Quaid-i-Azam University, Islamabad, Pakistan; [4]Department of Microbiology, Shah Abdul Latif Univesrity, Jamshoro, Pakistan*
*e-mail: bashir.ahmad@iiu.edu.pk*

**Abstract**

Methanogenic enterococci were isolated from yak faeces collected from glaciers in sakardu region, Pakistan. The isolate IB1 was capable of growing between 4 and 40°C with optimal growth at 25°C in facultatively anaerobic conditions in the culture medium containing rumen fluid. During the batch fermentation, maximum methane was detected at 25°C, pH 7, using urea as nitrogen source and fructose as carbon source, 0.5% $H_2S$ and 5% inoculums grown for 24 hours. Effect of various parameters like agitation speed, pressure, moderately hot water, exothermic reaction using urea, bulk constituents and metabolites like methane itself was partially studied.