

Accepted Manuscript

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PII: S2589-014X(18)30016-1
DOI: doi:[10.1016/j.biteb.2018.03.002](https://doi.org/10.1016/j.biteb.2018.03.002)
Reference: BITEB 17

To appear in:

Received date: 20 February 2018
Revised date: 7 March 2018
Accepted date: 8 March 2018

Please cite this article as: Raj Morya, Manish Kumar, Indu Shekhar Thakur , Utilization of glycerol by *Bacillus* sp. ISTVK1 for production and characterization of Polyhydroxyvalerate. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Biteb*(2017), doi:[10.1016/j.biteb.2018.03.002](https://doi.org/10.1016/j.biteb.2018.03.002)

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Utilization of glycerol by *Bacillus* sp. ISTVK1 for production and characterization of Polyhydroxyvalerate

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Abstract

Plastic due to its light weight and low cost is a first choice for daily use product, which now can be replaced by Bioplastics. The current study demonstrates the screening of a previously reported thermotolerant bacterium strain *Bacillus* sp. ISTVK1 isolated from wastewater treatment plant for production of PHA by utilizing pure glycerol as carbon source. Primary screening of the selected bacterium strain was performed by Nile red staining and afterward visualization under a fluorescence microscope. Nile red fluorescence measurement of bacterial culture was also investigated based on absorbance of spectrofluorometer. GC-MS,

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