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Title:	An efficient eco-friendly approach for recycling of newspaper waste
Authors:	Singh, Avtar (/jspui/browse?type=author&value=Singh%2C+Avtar)
Keywords:	Newspaper waste Chemical reduction Strategy
Issue Date:	2019
Publisher:	Springer Link
Citation:	3 Biotech,9(2).
Abstract:	In this study, a chemical reduction strategy was explored for deinking of newspaper waste using xylano-pectinolytic catalysts. A remarkable reduction of 40% in toxic chemicals consumption was obtained by introducing this enzymatic approach of deinking along with improved level of various physical and optical properties. Similarly, a reduction of 18.89% and 17.68% in BOD, COD values of effluent has also been noticed. This combined deinking methodology also resulted in a gain of 5.82% in breaking length, 6.45% in tear factor, 8.57% in burst factor and 9.64% in viscosity, which greatly improved the quality of the handsheets. The study revealed that enzymatic deinking followed by chemical deinking with 40% less chemicals consumption, could be an effective method for reducing the negative impact over the environment caused by 100% deinking chemicals. This is the first report of newspaper waste deinking using xylano-pectinolytic catalysts produced concurrently in the same production media by a bacterial isolate using agricultural wastes as carbon sources.
Description:	Only IISERM authors are available in the record.
URI:	https://link.springer.com/article/10.1007%2Fs13205-019-1590-2 (https://link.springer.com/article/10.1007%2Fs13205-019-1590-2) http://hdl.handle.net/123456789/2243 (http://hdl.handle.net/123456789/2243)
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