Title: Deinking of xerographic-printed paper by novel methods
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Abstract: We describe novel approaches to deinking xerographic papers employing a simple two-step process involving pulping and froth notation. The approaches include: (a) the use of polyethylene oxide-polypropylene oxide triblock copolymers; (b) the use of diblock copolymers which more closely resemble the ink toner chemistry; and (c) the addition of an agglomerating agent in the notation step. The deinking performance is evaluated in terms of the brightness of the deinked fiber, the dirt count and the amount of fiber lost in the operations. The process developed here is novel due to its simplicity and the good biodegradability characteristics of the block copolymers. Both from an economic point of view (amount of chemicals consumed is 20 to 30 times smaller than that in more conventional deinking formulations) and from an environmental point of view (reduced need to treat process water from deinking operations), the process outlined here appears attractive.

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