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H₂O₂

NaOH

NaOH

H₂O₂

NaOH

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(Lab ())

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Aquasol /

() Carmichael

() Gurnagul .()

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(TMP

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() Renders .()

() Borchardt

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EDTA

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NaOH

Elerpho

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NaOH

NaOH

T452om-98

Tappi :

CIE -Lab

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H₂O₂

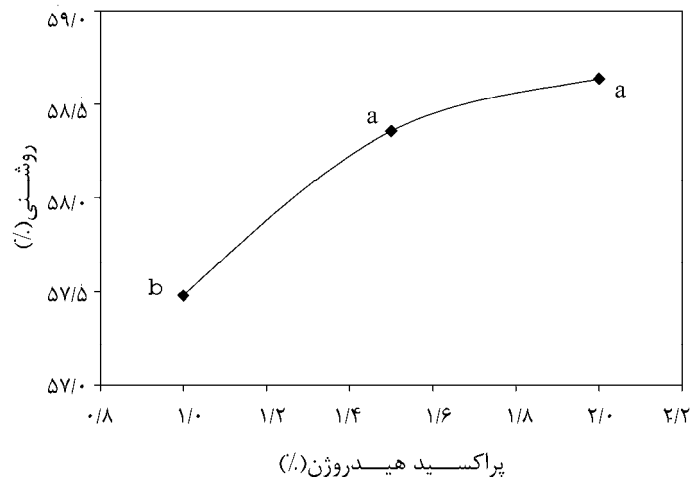
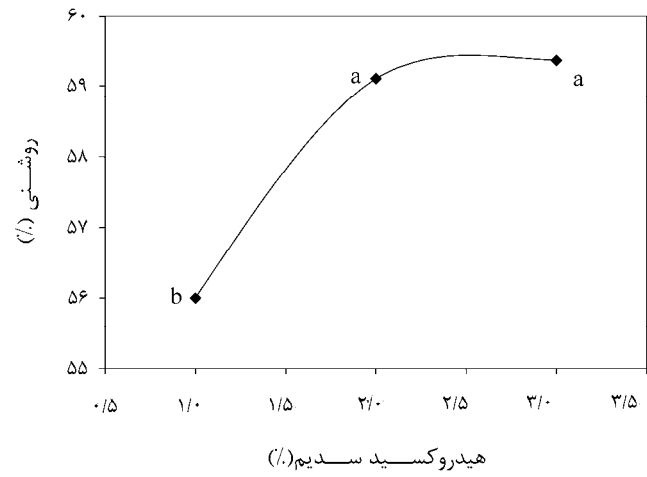
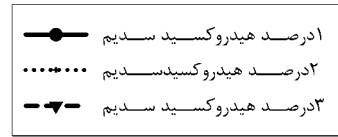
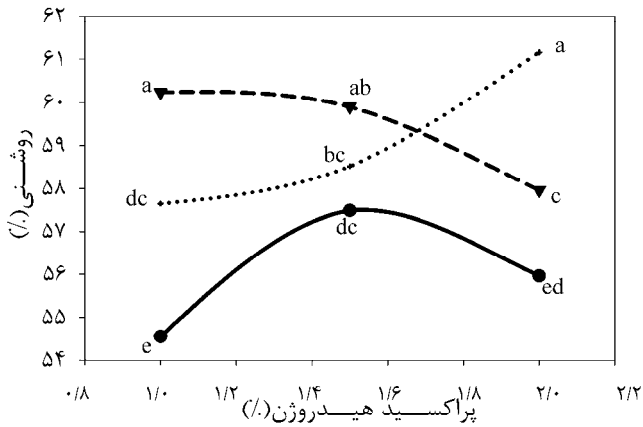
T425om-96

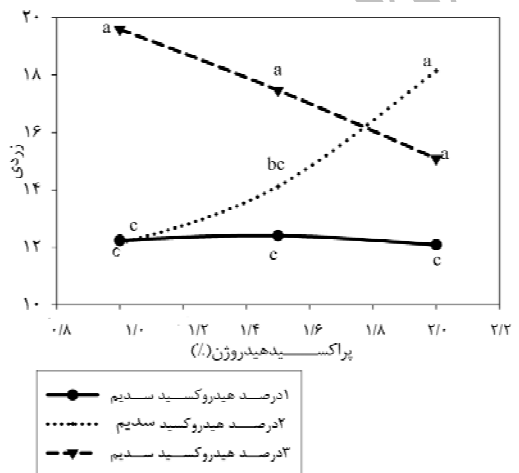
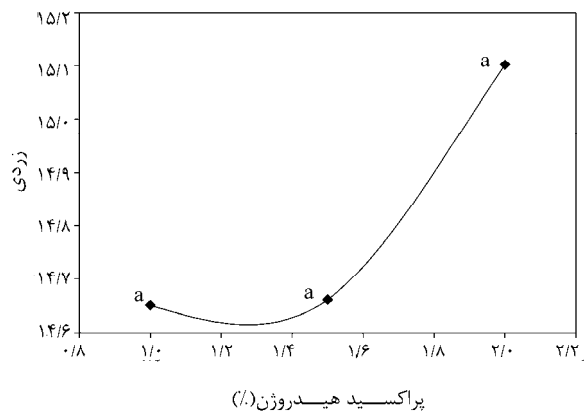
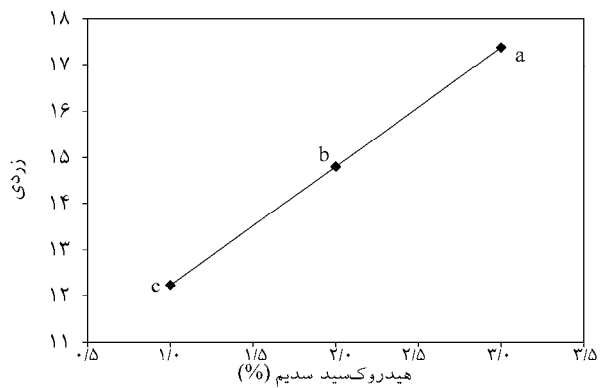
Tappi :

H₂O₂

H₂O₂ /

H₂O₂ NaOH





NaOH
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H₂O₂

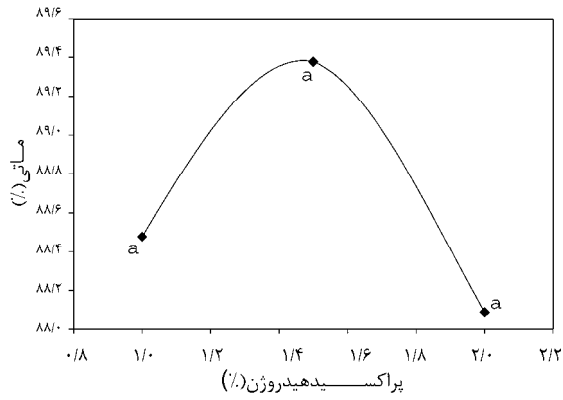
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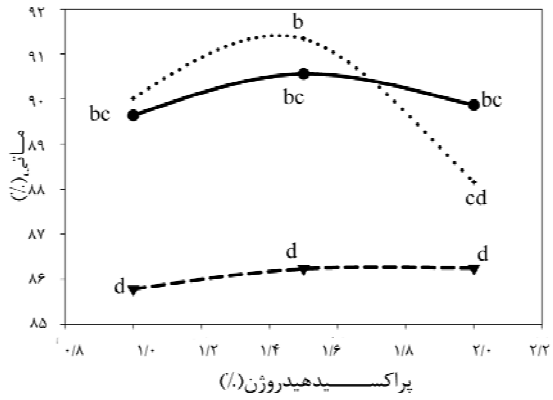
NaOH H₂O₂

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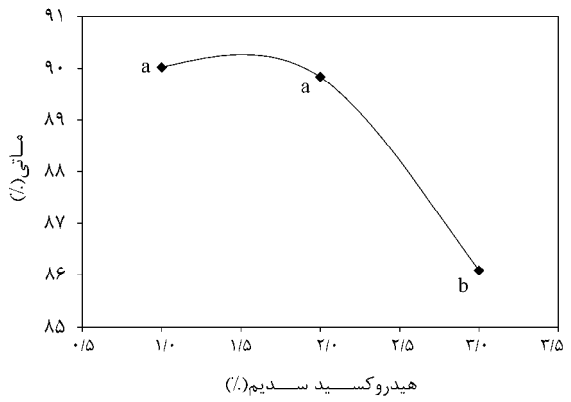
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NaOH

pH NaOH

NaOH

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Deinking characteristics of old newspaper

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Abstract

Deinking is important and detrimental for newspaper recycling and utilization. Since chemicals applied in deinking influences the removal of ink attached to fibers, the influence of two chemicals is investigated. Keyhan newspaper was deinked by oxidative deinking and bleaching process using three levels (1, 2, 3% based on oven dry weight of the paper) of sodium hydroxide and three levels (1, 2, 3% based on oven dry weight of the paper) of hydrogen peroxide. Optical properties of deinked pulp including brightness, yellowness and opacity of handsheets were measured. Results show that applying 2% NaOH and 2% H₂O₂ produces the highest brightness of deinked pulp at 61% ISO. Higher application of NaOH increases the yellowness of the deinked pulp. The highest yellowness was obtained at the highest dosage of NaOH and the lowest dosage of H₂O₂. However the opacity of the pulp produced from undeinked pulp was superior to deinked pulps.

Keywords: Deinking, Flootation, Old newspaper, Brightness, Yellowness, Opacity, Sodium hydroxide, Hydrogen peroxide

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