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% (*Quercus castanifolia*) (*Alnus subcordata*)

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Alnus Subcordata

Quercus Catanifolia

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$$S_y (\%) = \frac{A}{B} \times$$

$$(\%) = S_y$$

$$(\) = A$$

$$= B$$

$$(\) /$$

$$(\)$$

$$.(\)$$

$$S_y = s_y \times y^s / y$$

$$(\%) = y^s$$

$$(\%) = y$$

$$(\ : V/W) (\% \)$$

$$(\%) = S_y$$

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$$ml \%$$

$$ml$$

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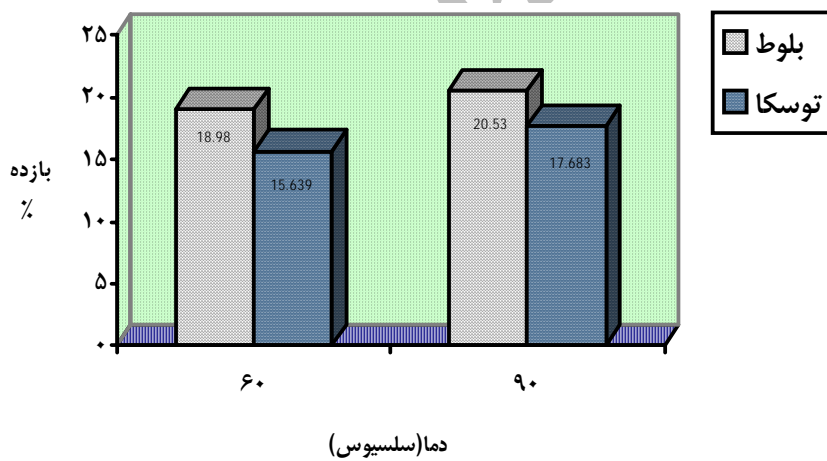
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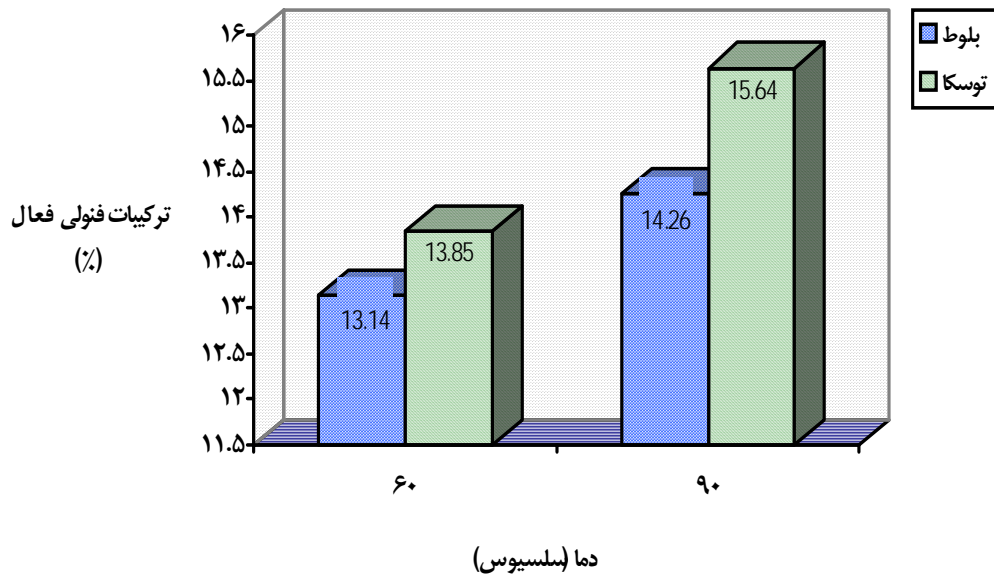
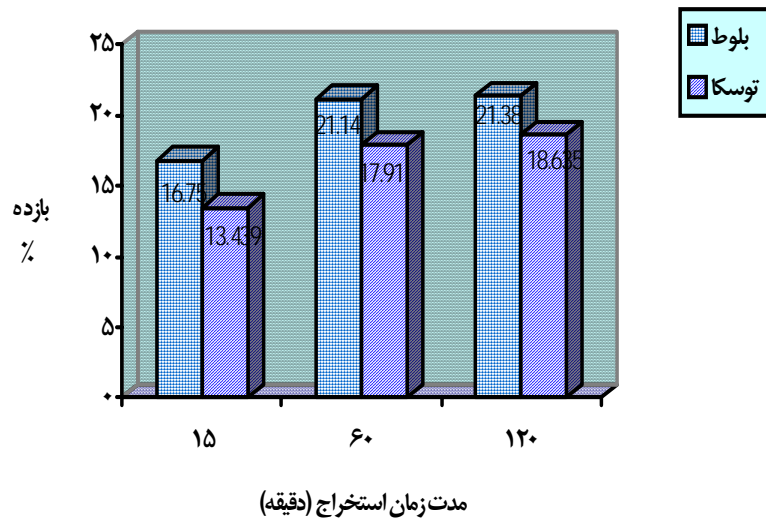
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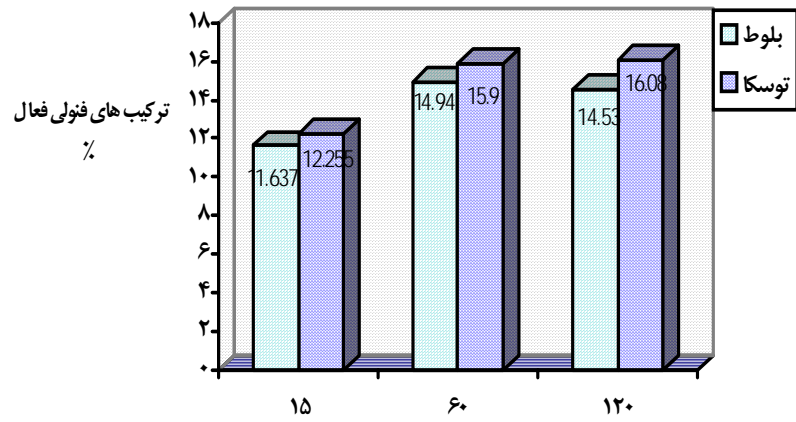
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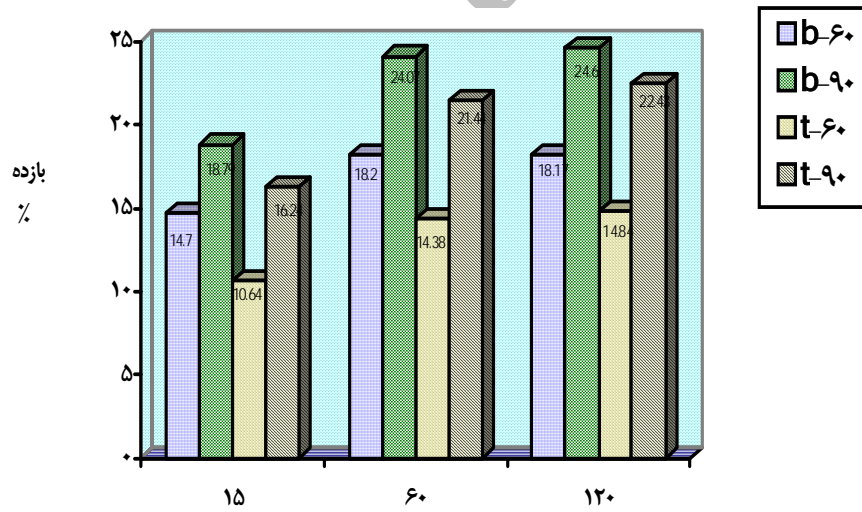
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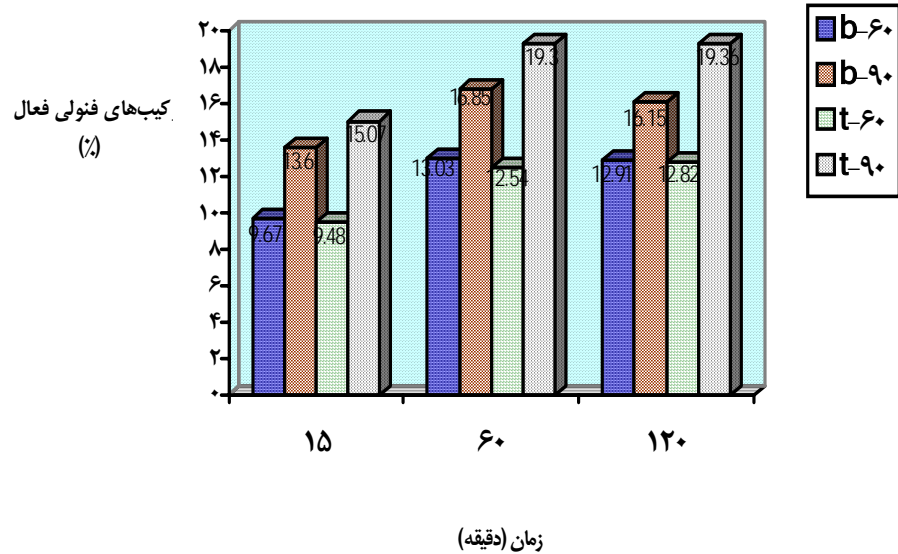




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Effects of some extraction factors on reaction and yield of bark extracts of Alder and Oak

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Abstract

In this study, Alder (*Alnus subcordata*) and Oak (*Quercus castanifolia*) barks were extracted with sodium hydroxide (1% NaOH) at temperature (in two levels of 60 and 90°C) and extraction time (in three levels of 15, 60 and 120 min). The purpose was to determine the effects of temperature and extraction time on yield and polyphenolic compounds. Data were statistically analysed with SPSS Software in multifactor analysis and Duncan's test were used for mean's comparison in levels of 1 and 5 %. Temperature increase caused increase in yield and polyphenolic compounds of both species. The extraction time increasing had positive effect on yield and polyphenolic compounds but there was not significant difference between two extraction time 60 and 120 min and they are in same groups based on Duncan's test. Therefore the best condition of temperature and extraction time are 90°C and 60 min. The yield of oak extractive materials (24.07 %) is much more than alder (21.44 %) while the polyphenolic compounds of alder (19.35 %) were obtained higher than oak.

Keywords: Alder, Oak, Extractive materials, Polyphenolic compounds, Temperature, Extraction time

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