

# Turkish Journal of Chemistry

Turkish Journal


of

Chemistry

On the Türker Angles in the Theory of Total  $\pi$ -Electron Energy

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 [Keywords](#)  
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**Abstract:** The Türker angles  $\theta$ ,  $\alpha$  and  $\beta$  are quantities invented by Lemi Türker, and are used in the theory of total  $\pi$ -electron energy ( $E$ ) of unsaturated conjugated hydrocarbons. We report here expressions for  $\theta$ ,  $\alpha$  and  $\beta$  in terms of  $E$  and the parameters  $n$  (= half the number of carbon atoms) and  $e$  (= the number of carbon-carbon bonds). The forms of these expressions are remarkably similar. Numerical calculation performed on a representative set of benzenoid hydrocarbons reveals that the dependence of the angles  $\alpha$  and  $\beta$  on molecular structure is very similar, and that their ratio is almost constant ( $\alpha/\beta \approx 1.564 \pm 0.015$ ).



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Turk. J. Chem., **22**, (1998), 399-402.

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