Influence of cutting modes on power characteristics of rotational turning by multifaceted cutters

A S Binchurov, N S Indakov, Y I Gordeev, V B Yasinski
Change of the main component of the cutting force depending on the cutting modes: cutting depth $amf$; longitudinal feed $fn$; azimuthal feed $faz$; cutting speed $V_r$. 

\[ P_z = 662.12 \cdot \frac{f_n^{0.1523} \cdot f_{az}^{0.4043} \cdot a_{mf}^{0.2241}}{V_r^{0.2402}} \]
Influence of the cutting modes on the main component of the cutting force: cutting speed $V_r$; longitudinal feed $f_n$. 