

rechnung_spannungsfolger

Student Group

First Name	Surname	Matrikel Nr.

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\$\$ Betrachtung der Ströme

aus (2+3)	$\textcolor{blue}{\{l_p\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$l_p\$ und \$l_m\$ sind damit definiert$
$\$ \textcolor{blue}{\{l_p\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$ \textcolor{blue}{\{l_p\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$ \textcolor{blue}{\{l_p\}} = \textcolor{blue}{\{l_m\}} = 0\$$
aus (3) und (5)	$\textcolor{blue}{\{l_o\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$l_o\$ ist damit definiert$
$\$ \textcolor{blue}{\{l_o\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$ \textcolor{blue}{\{l_o\}} = \textcolor{blue}{\{l_m\}} = 0\$$	$\$ \textcolor{blue}{\{l_o\}} = \textcolor{blue}{\{l_m\}} = 0\$$

\$II\$ Betrachtung der Spannungsverstärkung

aus (0)	$\{\textcolor{blue}\{A_V\}=\frac{\{U_A\}}{\{U_E\}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{\{U_A\}}{\{\textcolor{blue}\{U_E\}}}\}$	mit (4)
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{\{U_A\}}{\{\textcolor{blue}\{U_{A+U_D}\}}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{\{\textcolor{blue}\{U_A\}}{\{\textcolor{blue}\{U_{A+U_D}\}}}\}$	mit (1)
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{\{\textcolor{blue}\{A_{D\cdot U_D}\}}{\{\textcolor{blue}\{A_{D\cdot U_D}\}+U_D}\}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{\{A_{D\cdot U_D}\}}{\{A_{D\cdot U_D}+U_D\}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\textcolor{blue}\{\frac{\{A_{D\cdot U_D}\}}{\{A_{D\cdot U_D}+U_D\}}\}\}$	Erweitern mit $\{\frac{1}{A_{D\cdot U_D}}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\textcolor{blue}\{\frac{\{A_{D\cdot U_{D\cdot \frac{1}{A_{D\cdot U_D}}}\}}{\{A_{D\cdot U_D}+U_D\}}\cdot \frac{1}{\{A_{D\cdot U_D}\}}\}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\textcolor{blue}\{\frac{1}{1+\frac{1}{A_D}}\}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{1}{1+\frac{1}{A_D}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{1}{1+\textcolor{blue}\{\frac{1}{A_D}\}}\}$	mit (4)
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{1}{1+\textcolor{blue}\{0\}}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{A_V=\frac{1}{1}=1\}$	$\{\text{quad}\}$
$\{\text{quad}\}$	$\{\text{quad}\}$	$\{\text{quad}\}$

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