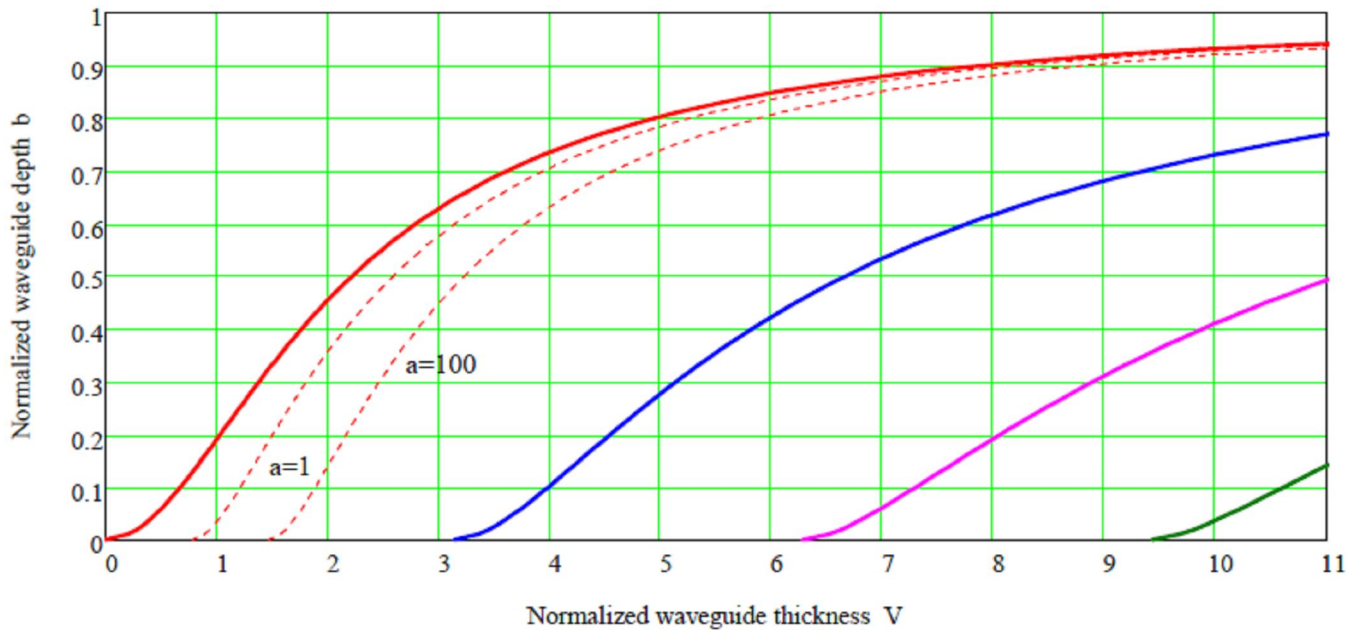


## Расчет $\text{Al}_x\text{Ga}_{1-x}\text{As}$ волновода

$$n(x) := 3.6 - 0.7 \cdot x \quad E_g(x) := 1.424 + 1.247 \cdot x \quad \lambda(x) := \frac{1.24}{1.424 + 1.247 \cdot x}$$

$$V_{\text{cut}}(a, b, m) := \frac{1}{\sqrt{1-b}} \cdot \left( m \cdot \pi + \text{atan} \left( \sqrt{\frac{b}{1-b}} \right) + \text{atan} \left( \sqrt{\frac{b+a}{1-b}} \right) \right)$$



параметры волновода:

	$x_f$	$x_c$	$x_s$	$n_f$	$n_c$	$n_s$	$f$	$\lambda$	
A =	0	0.1	0.4	0.4	3.53	3.32	3.32	0.1	0.801
	1	0	0.1	0.1	3.6	3.53	3.53	0.2	0.871
	2	0.1	0.3	0.3	3.53	3.39	3.39	0.3	0.801
	3	0	0.4	0.4	3.6	3.32	3.32	0.7	0.871
	4	0	0.3	0.3	3.6	3.39	3.39	0.4	0.871
	5	0.2	0.3	0.3	3.46	3.39	3.39	0.2	0.741
	6	0	0.4	0.4	3.6	3.32	3.32	1	0.871
	7	0.1	0.3	0.3	3.53	3.39	3.39	0.4	0.801
	8	0	0.3	0.3	3.6	3.39	3.39	0.5	0.871
	9	0.1	0.3	0.3	3.53	3.39	3.39	0.6	0.801
	10	0	0.3	0.3	3.6	3.39	3.39	0.5	0.871
	11	0.2	0.4	0.4	3.46	3.32	3.32	0.6	0.741
	12	0	0.2	0.2	3.6	3.46	3.46	0.8	0.871
	13	0.2	0.3	0.3	3.46	3.39	3.39	0.2	0.741
14	0.1	0.4	0.4	3.53	3.32	3.32	0.2	...	