

Semiconductor	Bandgap ΔW [eV]	Dielectric strength E_{MAX} [V/cm]	Electron mobility μ_n [cm ² /Vs]	Hole mobility μ_p [cm ² /Vs]
PbS	0.37	(breakdown<2V)	600	200
Se	1.95	(breakdown<25V)	0.005	0.14
PbSe	0.27		900	700
PbTe	0.32		1700	930
Cu ₂ O	2.137	(breakdown<8V)	0.2	0.1
Si	1.11	$3 \cdot 10^5$	1400	450
Ge	0.67	10^5	3900	1900
Si _{1-x} Ge _x	0.67-1.11	$3 \cdot 10^5$		
SiO ₂	9	10^6 - 10^7		
Si ₃ N ₄	5.4	$3 \cdot 10^6$		
C (diamond)	5.5	10^6 - 10^7	2200	1800
3C-SiC	2.36	10^6	800	320
4H-SiC	3.23	$3 \cdot 10^6$ - $5 \cdot 10^6$	900	120
6H-SiC	3.05	$3 \cdot 10^6$ - $5 \cdot 10^6$	400	90
GaAs	1.43	$4 \cdot 10^5$	5000	400

Semiconductor	Bandgap ΔW [eV]	Dielectric strength E_{MAX} [V/cm]	Electron mobility μ_n [cm ² /Vs]	Hole mobility μ_p [cm ² /Vs]
AlAs	2.16	$6 \cdot 10^5$	1200	420
Ga _{1-x} Al _x As	1.43-2.16	$4 \cdot 10^5$ - $6 \cdot 10^5$		
InP	1.344	$5 \cdot 10^5$	5400	200
GaP	2.26	10^6	250	150
GaSb	0.726	50000	3000	1000
InAs	0.354	40000	40000	400
InSb	0.17	1000	77000	850
GaN	3.4	$5 \cdot 10^6$	1800	30
AlN	6.28	$1.2 \cdot 10^6$ - $1.8 \cdot 10^6$	300	14
InN	0.65		3200	
BN	5.4	$3 \cdot 10^6$ - $6 \cdot 10^6$	200	500
CdS	2.42		400	
CdSe	1.74		650	
CdTe	1.44		1100	100
Hg _{1-x} Cd _x Te	0-1.5			