## **List of Symbols**

Symbol	Description
S	Relative response
$R_a$	Resistance in air
$R_g$	Resistance in gas
$\Delta R$	Change in resistance
$\Delta V$	Change in voltage
$\Delta I$	Change in current
V <sub>a</sub>	Voltage in air
I <sub>a</sub>	Current in air
λ	Wavelength
θ	Bragg angle
K	Scherrer constant
β	Full width half maximum
ε	Microstrain
С	Lattice constant
μ	Micro
KV	Kilovolt
Si	Silicon
Hz	Hertz
h	Plank constant
υ	Frequency
$E_g$	Band gap
A	Area
$\phi_b$	Barrier height
k	Boltzmann constant
J	Current density
q	Charge
E <sub>C</sub>	Conduction band energy
$E_{\rm F}$	Fermi energy
$E_{V}$	Valance band energy
Ω	Ohm
$\tau_d$	Decay time
$\tau_r$	Rise time
X	Electron affinity
$\eta$ $E_k$	Ideality factor Kinetic energy
n	Nano
d	Inter plane distance
$\Phi_{ m m}$	Metal work function
T	Operating temperature
$\overline{\mathrm{V}_{\mathrm{r}}}$	Reverse bias voltage
A*	Richardson constant
β	Interface related parameter
$\Delta \phi_b$	Effective barrier height
D	Postance time

Response time

Recovery time

 $R_{res}$   $R_{rec}$ 

