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## Index of frequently used symbols\*

Symbol	Name(s) or meaning(s)	Place of definition or first occurrence
$A$	Area of charge-collecting electrode	4.2.1
$a$	Coefficient in linear ( $U, u$ ) relation; lattice constant	2.2; 4.5
$b$	Coefficient in linear ( $U, u$ ) relation; Burgers' vector	2.2; 3.3.2
$C_v$	Specific heat at constant volume	2.2
$C_{ijkl} \dots$	Elastic stiffness constants in tensor or Voigt notation	3.1
$D(D_i)$	Electric displacement vector	4.2.1
$d(d_i)$	Kinematical displacement vector	2.1
$E_g$	Energy gap	4.5 and 4.9
$E(E_i)$	Electric field vector	4.2.1
$e; e_{ijk} \dots$	Electronic charge; piezoelectric stress constants	4.9
$F(F_{ij}); \hat{F}$	Deformation gradient tensor; Maxwell relaxation function	2.1, 3.3.2
$f_{ijkl}$	Electrostrictive constants	4.2.1
$H$	Magnetic field	4.8
$\mathcal{H}$	Designates Hugoniot curve on figures	2.2
$i$	Electric current	4.2.1
$\mathcal{I}$	Designates isentrope on figures	2.2
$K$	Bulk elastic stiffness; electromagnetic coupling factor	3.1; 4.2.1
$L$	Initial thickness of material plate	4.4
$M, M_s$	Magnetization	4.8
$N; N_A, N_D$	Dislocation density; acceptor and donor ion densities	3.3.2; 4.9
$n; n; \mathbf{n}$	Electron density; refractive index; wavefront normal	4.9; 5.1; 2.1
$p$	Pressure; semiconductor hole density	2.1; 4.9
$P(P_i)$	Polarization vector	4.2.1
$Q; Q_0$	Electric charge; effective polarization	4.3; 4.5
$R; R_n, R_p$	Gas constant; ratios	3.2.6; 4.9
$\mathcal{R}$	Designates Rayleigh line on figures	2.2
$S(S_{ij} \text{ or } S_i)$	Linearized strain tensor	2.1, 3.1
$s$	Entropy density	2.2
$\mathcal{S}$	Set of shock jump variables	2.2
$t$	Elapsed time	2.1
$t(t_{ij} \text{ or } t_i)$	Cauchy stress tensor	2.1, 3.1
$U$	Material propagation velocity for a plane shock	2.1
$u(u_i); u_n$	Particle velocity vector; spatial velocity of a shock	2.1
$V; V_d$	Electrical potential difference; dislocation velocity	4.2.1; 3.3.2
$v$	Specific volume	2.1
$X(X_i), X$	Material coordinates (points in reference configuration)	2.1
$x(x_i), x$	Spatial coordinates (points in space)	2.1
$\alpha$	Permittivity ratio; coefficient in eq. (5.1)	4.2.1; 5.1
$\beta$	Electronic Grüneisen parameter; coefficient in eq. (5.1)	3.2.6; 5.1
$\gamma$	Tensor component of shear strain; Grüneisen's parameter; electronic factor = 1 for $i = j$ , 0 otherwise	2.1; 5.1; 4.5
$\delta_{ij}$		2.1
$\varepsilon; \varepsilon, \varepsilon_{ij}$	Internal energy density; dielectric permittivity	2.1; 4.2.1
$\eta(\eta_{ij} \text{ or } \eta_i)$	Material strain tensor	2.1, 3.1
$\theta$	Absolute temperature	2.2
$\mu; \mu_n, \mu_p$	Shear stiffness coefficient; electron and hole mobilities	3.1; 4.9
$\rho$	Mass density	2.1
$\sigma$	Electric conductivity	4.9
$\tau; \tau_0$	Maximum shear stress or dielectric relaxation time; dislocation back stress	2.1, 4.7; 3.3.2
$\chi$	Thermal diffusivity	3.4

\* Special notations used only in a single section are not listed unless deemed to present unusual potential for confusion. Tensile stress and strain are assigned positive sign.