International Tables for Crystallography (2006). Vol. D, References, pp. 216–219.

Table 1.7.5.2 (*cont.*)

Crystal	Nonlinear coefficients SHG (d_{ij}) and EO (r_{ij})	OPO/OPA	References†
DAST	d_{11}(1318 nm) = 1010 pm V^{-1} d_{11}(1542 nm) = 290 pm V^{-1} d_{26}(1542 nm) = 39 pm V^{-1} r_{11}(720 nm) = 92 pm V^{-1} r_{11}(1313 nm) = 53 pm V^{-1} r_{11}(1535 nm) = 47 pm V^{-1}	Terahertz generation (difference frequency mixing)	(*v*), (*w*)
2A5NPCl	$d_{11} = 9 \pm 4$ pm V^{-1} $d_{12} = 8 \pm 3$ pm V^{-1} $d_{13} = 11 \pm 4$ pm V^{-1} $d_{\rm eff} = 5.1$ pm V^{-1} or 9.7 pm V^{-1}		(*x*)

† References: (*a*) Halbout *et al.*, 1979; (*b*) Morrell *et al.*, 1979; (*c*) Donaldson & Tang, 1984; (*d*) Rosker *et al.*, 1985; (*e*) Puccetti *et al.*, 1993; (*f*) Oudar & Hierle, 1977; (*g*) Levine *et al.*, 1979; (*h*) Lipscomb *et al.*, 1981; (*i*) Morita *et al.*, 1988; (*j*) Zyss *et al.*, 1981; (*k*) Sigelle & Hierle, 1981; (*l*) Zyss *et al.*, 1985; (*m*) Ledoux *et al.*, 1987; (*n*) Josse *et al.*, 1988; (*o*) Ledoux *et al.*, 1990; (*p*) Josse *et al.*, 1992; (*q*) Khodja *et al.*, 1995(*b*); (*r*) Khodja, 1995; (*s*) Zyss *et al.*, 1984; (*t*) Kotler *et al.*, 1992; (*u*) Fève *et al.*, 1999; (*v*) Bosshard, 2000; (*w*) Kawase *et al.*, 2000; (*x*) Horiuchi *et al.*, 2002.

conversion occur simultaneously inside the same crystal. An overview of these attractive materials is given in Brenier (2000).

1.7.6. Glossary

μ_0	vacuum magnetic permeability
ε_0	permittivity of free space
c	velocity of light in a vacuum
$\mathbf{P}$	electronic polarization
$\mathbf{P}_n$	nth order electronic polarization
$\mathbf{P}^{\rm NL}$	nonlinear polarization
$\chi^{(n)}$	nth order dielectric susceptibility tensor
ε	dielectric tensor
n	refractive index
n_x, n_y, n_z	principal refractive indices
(x, y, z)	principal axes of the index surface (optical frame)
n_o, n_e	refractive indices of the ordinary and extraordinary eigen modes
T	transmission coefficient
V	half of the angle between optic axes
ω	laser circular frequency
λ	laser wavelength
φ	laser phase
v_g	laser group velocity
$\mathbf{k}$	wavevector
$\mathbf{u}$	unit wavevector
(θ, φ)	spherical coordinates of the wavevector in the optical frame
Π	neutral vibration plane
$\mathbf{E}$	electric field vector
$(\mathbf{e}, E)$	unit vector and amplitude of the electric field
$\mathbf{D}$	dielectric displacement vector
$\mathbf{d}$	unit dielectric displacement vector
$\mathbf{H}$	magnetic field vector
$\mathbf{S}$	Poynting vector
$\mathbf{s}$	unit Poynting vector
W	work done per unit time
(X, Y, Z)	orthonormal wave frame where Z is along the wavevector
ρ	double refraction angle (walk-off angle)
∇	nabla operator
$\otimes$	tensorial product
$\cdot$	tensorial contraction
$\times$	vectorial product
Q^*	complex conjugate of Q
w_0	laser beam waist radius
Z_R	Rayleigh length of the laser beam
τ	laser pulse half duration
f	repetition rate of the pulsed laser
$P, P(t)$	laser instantaneous power
I	instantaneous laser intensity
$\tilde{E}$	total energy per laser pulse
$\tilde{P}$	average laser power
P_c	laser peak power
L	crystal length
$\chi_{\rm eff}, d_{\rm eff}$	effective coefficient
$\mathbf{F}^{(n)}$	nth order field tensor
Δk	phase mismatch
$\eta_{\rm SHG}$	conversion efficiency of second harmonic generation
G, h	spatial walk-off attenuation functions

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