LIST OF SYMBOLS AND ABBREVIATIONS

a	-	Standard hardness
a_1	-	intercept on log d axis in the plot of log p vs. log d of LLR
a_2	-	intercept on log d axis in the plot of log p vs. log d of HLR
a, b, c	-	lattice parameters of unit cell
A	-	unit area
b	-	constant(depends upon material)
c, cocn	-	concentration of solution
C	-	constant depending upon the indenter shape
d	-	diagonal length of indentation mark
d	-	ionic diameter
d_1, d_2	-	short hand notation used for $d_{h_1k_1l_1}$ and $d_{h_2k_2l_2}$
d-AHT	-	ammonium hydrogen d-tartrate crystal
d_{hkl}	-	interplanar spacing of (hkl) planes
d_k	-	longer diagonal length of knoop indentation mark.
d_v	-	diagonal length of vickers indentation mark.

d_{va}, dva - average of two diagonal lengths of vickers indentation mark

d_{vx}, dvx - diagonal length of vickers indentation mark measured along direction [001] on the cleavage plane and on m-face and along direction [101] on z-face

d_{vy}, dvy - diagonal length of vickers indentation mark measured normal to direction [001] on cleavage plane and on m-face and normal to [101] on z-face

$d_{(001)}$ - diagonal length of vickers indentation mark measured along direction [001] on cleavage plane

$d_{(100)}$ - diagonal length of vickers indentation mark measured along direction [100] on the cleavage plane

D - distance

D - diffusion constant

E - modulus of elasticity (young's modulus)

E - extra-ordinary ray

E_c - energy required for formation of crystal nucleus

E_s	-	activation energy for surface dissolution
E_t	-	activation energy for tangential dissolution
FS	-	feed solution (ammonium chloride solution)
G	-	free energy of two dimentional nucleus
G	-	Galelian telescope
h	-	planck's constant
H	-	half-shade device (Laurent's plate)
$\bar{H}$	-	average hardness number in HLR
H_k	-	knoop hardness number
$\bar{H}_k$	-	average knoop hardness number in HLR
HLR	-	high load region
$\bar{H}_v$	-	average vickers hardness number in HLR
H_{v_a}, H_{va}	-	vickers hardness number considering average of two diagonal lengths of vickers indentation mark in account
H_{v_x}, H_{vx}	-	vickers hardness number along direction [001] on the cleavage and on m-face and along direction [101] on z-face
H_{v_y}, H_{vy}	-	vickers hardness number normal to direction [001] on the cleavage plane and on m-face and along [101] on z-face

k	-	Boltzmannconstant
K	-	constant
Kw	-	ionic product of water
l	-	length of tube of polarimeter
L	-	convex lens of polarimeter
L	-	the heat of dissolution
LC	-	least count
LLR	-	low load region
m	-	slope of straight line plot
m	-	gram of optical active substance in 100 c.c. of distilled water
m	-	slope of the plot of log $\bar{H}r_Q$ vs. log T_Q
M	-	Molarity, Molar concentration
n	-	slope of the plot of log p vs. log d
n_1	-	slope of the plot of log p vs. log d in LLR
n_2	-	slope of the plot of log p vs. log d in HLR
n_c	-	calculated slope of the plot of log p vs. log d
n_o	-	observed slope of the plot of log p vs. log d

n_{k1}	-	slope of the plot of log p vs. log d in LLR for knoop indentations
n_{k2}	-	slope of the plot of log p vs. log d in HLR for knoop indentations
n_{v1}	-	slope of the plot of log p vs. log d in LLR for vickers indentations
n_{v2}	-	slope of the plot of log p vs. log d in HLR for vickers indentations
N_1	-	Polarizer of polarimeter
N_2	-	analyzer of polarimeter
O	-	ordinary ray
P	-	load in grammes
P_k	-	pick at kink
R	-	radius of a crystal
RT	-	room temperature
s	-	specific rotation
S	-	diameter of arcs of x-ray powder photograph
SMS	-	sodium metasilicate solution
Sp. gra.	-	specific gravity
t	-	time

T	-	absolute temperature
T	-	glass tube of polarimeter
TA	-	d-tartaric acid solution
T_Q	-	quenching temperature
V	-	function of dissolution speed
Vl	-	the dissolution velocity (parallel to surface)
Vn	-	the dissolution velocity (normal to surface)
V_{nd}	-	the dissolution velocity at a dislocation site
V_{ndf}	-	the average vertical dissolution velocity of a dislocation free portion of the surface
V_t	-	tangential velocity of dissolution
ϵ	-	compressive strain
θ	-	angle of rotation of optically active substance
θ	-	Bragg angle
λ	-	path difference
λ	-	wavelength of x-ray beam

$\vec{v}^{*}_{h_1k_1l_1}$ - reciprocal vector corresponding to plane (h_1,k_1,l_1)

$\vec{v}^{*}_{h_2k_2l_2}$ - reciprocal vector corresponding to plane (h_2,k_2,l_2)

ρ - the droplet density

ρ - the density of d-AHT

ρ' - the density of kerosene

σ - the compressive stress

σ - the surface energy per unit area

τ - mean free time

τ - material quantity