TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF SYMBOLS

A	-	Area
A_o	-	Concentration of wall charges in ionic equivalent per unit volume
AAS	-	Atomic Absorption Spectroscopy
AEC	-	Anion exchange capacity
Al	-	Aluminium
Am	-	Amp meter
AASHTO	-	American Association of State Highway and Transportation Official
ASTM	-	American Society for Testing and Materials
BS	-	British Standard
C	-	Coarse (Pg.70)
Ca^{2+}	-	Calcium
CEC	-	Cation exchange capacity
CH	-	Clay high plasticity
cm	-	Centimeter
Cm	-	Meniscus correction
Cu	-	Cuprum
c_1	-	Concentration of mobile cations
c_3	-	Concentration of free water
D	-	Dielectric constan
D.C	-	Direct current
DDDW	-	Double distill de-ionized water
E	-	Electric potentia
EO	-	Electro-osmosis
F	-	Fines (Pg.70)
f_a	-	Faraday constant

Fe	-	Electrical force per unit length (Pg.24)
Fe	-	Ferum
F_n	-	Hydraulic force
g	-	Gram
G_s	-	Specific gravity
i_e	-	Hydraulic gradient (Pg.18)
i_h	-	Hydraulic gradient (Pg.23)
kPa	-	Kilo Pascal
K^+	-	Potassium
K_e	-	Electro-osmosis permeability
l	-	Length measured along the capillary
LL	-	Liquid limit
M	-	Medium (Pg.70)
mL	-	Mililiter
mm	-	Milimeter
Mg^{2+}	-	Magnesium
Mn	-	Manganese
m_s	-	Mass of sample
MIT	-	Massachusetts Institute of Technology
NH^{4+}	-	Ammonium
n	-	Porosity of the soil
Pa	-	Pascal
PI	-	Plasticity index
PL	-	Plastic limit
Q_T	-	Total flow
q_e	-	Hydraulic flow (Pg. 27)
R	-	Radius of capillary
s	-	Second
USCS	-	Unified Soil Classification System
USDA	-	U.S. Department of Agriculture
v	-	Velocity
V	-	Volt (Pg. 34)

Vm	-	Volt meter
Vs	-	Volume of sample
x_{13}	-	Friction coefficient between cation and water
x_{34}	-	Friction coefficient between water and the pore wall
Z	-	Zeta potential
Zn	-	Zinc
μm	-	micrometer
η	-	Kinematic viscosity of electrolyte
σ	-	Surface charge density
ζ	-	Potential across a condenser
$\frac{\Delta E}{\Delta L}$	-	Voltage gradient
γ_w	-	Density of water
Ω	-	True electro-osmotic plug
ρ_s	-	Particle density