Nomenclature

$\bar{r}$	average of the outer and inner radii	—
$\bar{x}$	mean particle size	m
β	ratio of Q_a to Q_{sh}	—
η	dynamic viscosity	Pas
κ	ratio of r_1 to r_4	—
Ω	transfer function	—
ω	angular speed	1/s
Ω_{max}	maximum height of a the transfer function	—
σ	width of a the transfer function	—
τ	particle relaxation time	s
τ^*	nominal particle relaxation time	s
$\widetilde{\mu_2}, \widetilde{\mu_1}$	fit parameters for the shift of a Gaussian function	—
$\widetilde{\mu}$	shift of a the transfer function	—
$\widetilde{\tau}$	normalized particle relaxation time	—
$\widetilde{Z}$	normalized particle mobility	—
a, d	fit parameters for the height of a Gaussian function	—
a_c	centrifugal acceleration	m/s^2
c, e	fit parameters for the width of a Gaussian function	—
c_0	total number concentration	#/m^3
Cu	Cunningham slip correction factor	—
d_m	electric mobility equivalent diameter	m
d_v	volume equivalent diameter	m
d_{ae}	aerodynamic equivalent diameter	m

The line numbers 430, 435, 440, 445, 450 appear in the left margin.

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d_{st}	stokes equivalent diameter	m
455 E	electric field magnitude	V/m
F_c	centrifugal force	N
F_{Dr}	drag force	N
F_{el}	electrical force	N
L	length of the CDMA transfer path	m
460 m_P	particle mass	kg
n_1	particle number concentration after the first device in a tandem setup	$\#/m^3$
n_2	particle number concentration after both devices in a tandem setup	$\#/m^3$
Q_a	aerosol volume flow	m^3/s
Q_P	particle charge	As
465 Q_s	sample volume flow	m^3/s
Q_{ex}	excess air volume flow	m^3/s
Q_{sh}	sheath air volume flow	m^3/s
r_1	inner radius	m
r_2	maximum radius at which the particles enter	m
470 r_3	minimum radius of which the particles are still classified	m
r_4	outer radius	m
r_{in}	actual radius at which the particle enters	m
s	radial distance	m
s_{max}	maximum radial distance	m
475 T	truncation factor	—
U	voltage	V
u	velocity of the air	m/s

w_{Dr}	particle drift velocity	m/s
y	position of the particle in stream-wise direction	m
Z^*	nominal particle mobility	$\text{m}^2/(\text{Vs})$
Z_p	particle mobility	$\text{m}^2/(\text{Vs})$

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