

Stokes number, St

Sometimes referred to as the inertial parameter; it is an index of the impactability of an aerosol particle. It is defined by the equation: $St = 2 \tau (V_t - v_t) D_p$ where D_p is the diameter of a small drop, $V_t - v_t$ is the difference in fall velocities of the drop and aerosol particles and τ is the characteristic relaxation time of a particle.

Source:

PAC, 1990, 62, 2167 (*Glossary of atmospheric chemistry terms (Recommendations 1990)*) on page 2216