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List of symbols and abbreviations

UV	Ultra Violet
PAH	Polycyclic aromatic hydrocarbon
μm	micro meter
nm	nanometer
DDA	Discrete Dipole Approximation
FDTD	Finite-Difference Time-Domain method
TMM	T-matrix method
λ	wavelength
FEM	Finite Element Method
a_{eff}	Effective particle size
m	complex refractive index
N	number of dipoles
CCG	Complex Conjugate Gradient method
FFT	Fast Fourier Transform
x	Particle size parameter
GOA	Geometric Optics Approximation
θ	Scattering angle
Q_{sca}	Scattering efficiency
Q_{ext}	Extinction efficiency
Q_{abs}	Absorption efficiency
a	Single scattering albedo
g	Asymmetry parameter
d	Interdipole separation

k	wave vector
ϕ	Azimuth angle
I	Field intensity
C_{ext}	Extinction cross section
C_{abs}	Absorption cross section
C_{sca}	Scattering cross section
ω	angular frequency
F	Mueller Matrix
F_{11}	Phase function
$-F_{12}/F_{11}$	Degree of linear polarization
$\beta(\theta)$	Volume scattering function or 'VSF'
GUI	Graphical User Interface
RAM	Random Access Memory
EBCM	Extended Boundary Condition Method
SEM	Scanning Electron Microscopy
Γ	Gamma function
σ_g	standard deviation
r_g	modal radius
mW	milliwatt
DAQ	Data Acquisition
IR	Infra-red.
XRD	X-ray diffraction
EDX	Energy-dispersive X-ray spectroscopy
Fe_2SiO_4	Fayalite