scattering matrix

The Stokes parameters of scattered light are given by the matrix equation

\[
(\mathbf{s}_0, \mathbf{s}_1, \mathbf{s}_2, \mathbf{s}_3) = \mathbf{F} (\mathbf{s}_0^0, \mathbf{s}_1^0, \mathbf{s}_2^0, \mathbf{s}_3^0)
\]

where the 4, 4 scattering matrix \( \mathbf{F} \) is comprised of 16 scattering matrix elements. These matrix elements, which may originate in theory or experiment, provide a complete description of the scattered radiation in terms of the incident radiation.

Source:
PAC, 1983, 55, 931 (Definitions, terminology and symbols in colloid and surface chemistry. Part 1.14: Light scattering (Provisional)) on page 934