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The Effect of Size, Morphology and Composition on Second Harmonic Light Scattering from Colloidal Particles GRAZIA GONELLA, HAI-LUNG DAI, Department of Chemistry - Temple University, Philadelphia, PA 19122 — Second harmonic light scattering (SHS) is a coherent second-order optical technique that is specifically surface sensitive and can be performed in-situ [1]. It has also been recently shown to be sensitive to size, shape and composition of metallic (Ag) and dielectric (polystyrene) nano and microparticles with or without adsorbed molecular monolayers. An understanding of how the size, shape, composition, structure, charge and surface chemistry influence the nonlinear optical properties makes SHS a versatile in-situ probe of nano- and/or micro-particle whose importance span from plasmonics to biomedicine [2].

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