Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Describing Nanomaterials: A Uniform Description System[1] JOHN RUMBLE, R&R Data Services, STEVE FREIMAN, Freiman Consulting, CLAYTON TEAGUE, Retired — Products involving nanomaterials are growing rapidly and nanoparticles also occur naturally. Materials, scientists, engineers, health officials, and regulators have realized they need a common description system. Led by CODATA and VAMAS, a Uniform Description System (UDS) for nanomaterials is being developed to meet the requirements of a broad range of scientific and technical disciplines and different user communities. The goal of the CODATA/VAMAS effort is the creation of a complete set of descriptors that can be used by all communities, e.g., materials, physics, chemistry, agricultural, medical, etc., interested in nanomaterials. The description system must be relevant to researchers, manufacturers of nanomaterials, materials selectors, and regulators. The purpose of the UDS for materials on the nanoscale is twofold: Uniqueness and Equivalency. The first step in the development of the UDS has been the creation of a Framework that will be used by the different communities to guide in the selection of descriptors relevant to their needs. This talk is a brief description of the draft of such a Framework, and how the framework will be translated into a robust description system with input from many scientific communities including physics.

[1]A contribution from the CODATA/VAMAS Working Group on the Description of Nanomaterials

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Date submitted: 09 Nov 2013 Electronic form version 1.4