

Laser Analysis and Cleaning of Nineteenth Century Daguerreotypes

Valerie V. Golovlev and John C. Miller*#, Life Sciences Division, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6125

Grant Romer, International Museum of Photography and Film, George Eastman House, 900 East Avenue., Rochester, NY 14607-2298

Paul Messier, Boston Art Conservation, 60 Oak Square Ave., Boston, MA 02135

ABSTRACT

Laser ablation mass spectrometry and surface-enhanced Raman spectroscopy have been used to characterize both modern and 150 year old daguerreotypes. Such investigations are a necessary prelude to attempts to clean them of tarnish by laser ablation.

Oak Ridge National Laboratory managed by Lockheed Martin Energy Research Corporation for the U.S. Department of Energy under Contract No. DE-AC05-96OR22464.