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## Microscopy and Microanalysis

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### SPMicros Special Section

#### White Spots on Smoke Rings by Bruce Nauman: A Case Study On Contemporary Art Conservation Using Microanalytical Techniques

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#### Abstract

The artwork "Smoke Rings: Two Concentric Tunnels, Non-Communicating" by Bruce Nauman represents a case study of corrosion of a black patina-coated Al-alloy contemporary artwork. The main concern over this artwork was the widespread presence of white spots on its surface. Alloy substrate, patina, and white spots were characterized by means of energy-dispersive X-ray fluorescence and scanning electron microscopy with energy-dispersive spectroscopy. Alloy substrate was identified as an aluminum alloy 6,000 series Al-Si-Mg. Patina's identified composition confirmed the documentation provided by the atelier. Concerning the white spots, zircon particles were found on patina surface as external elements.

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#### Key words

Bruce Nauman; contemporary artwork; EDXRF; SEM-EDS; micro-XRD

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