

Abstract Submitted
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TERS and AFM Mapping of Molecular Aggregates ZACHARY LIEGE, Baylor University, Texas A&M University, ALEXANDER SINYUKOV, Texas A&M University, DMITRI VORONINE, ALEXEI SOKOLOV, Texas A&M University, Baylor University — Tip-enhanced Raman spectroscopy is a well-known analysis technique for surfaces and other material science. We combined TERS mapping with a simultaneous AFM mapping in order to correlate topographical features with corresponding Raman spectra. We applied this technique to image copper phthalocyanine molecular aggregates on a molybdenum disulfide substrate. Our results showed chemically-enhanced Raman “hot spots” on the sample surface. These did not correspond with the Raman hot spots observed without the tip. This is the first imaging of chemically-enhanced Raman hot spots on a semiconductor surface.

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