

Biographical Sketch for Scott Crittenden

Scott Crittenden
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(a) Professional Preparation

University of Nevada, Reno	Reno, NV	Mathematics	B.S. 1997
Purdue University U.S. Army Research Laboratory	West Lafayette, IN Adelphi, MD	Physics	PhD 2004 2004–2007, postdoctoral researcher

(b) Appointments

2016–present Associate Professor, Univ. of S. Carolina, Columbia, SC
2007–2016 Assistant Professor, Univ. of S. Carolina, Columbia, SC

(c) Products

1. N. Marshall, W. James, J. Fulmer, S. Crittenden, A. B. Thompson, P. A. Ward, G. T. Rowe, 2019, *Polythiophene Doping of the Cu-Based Metal–Organic Framework (MOF) HKUST-1 Using Innate MOF-Initiated Oxidative Polymerization*, *Inorg. Chem.*, 2019, 58, 5561-5575, <https://doi.org/10.1021/acs.inorgchem.8b03465>
2. F. Oberbeck-Oxsher, B. Altschul, T. Crawford, S. Crittenden, 2018, *Ligand-induced magnetic changes in metal thin films*, *Phys. Rev. B* 98, 134408, <https://link.aps.org/doi/10.1103/PhysRevB.98.134408>
3. N. Marshall, A. Rodriguez, S. Crittenden, 2018, *Diazonium-functionalized thin films from the spontaneous reaction of p-phenylenebis(diazonium) salts*, *RSC Advances* 8, 6690-6698
4. S. Sridharan, B. Altschul, S. Crittenden, *Time required for a sphere to fall through a funnel*, *AIP Advances*, *AIP Advances* 4, 127137 (2014), <http://dx.doi.org/10.1063/1.4904948>
5. B. Kumar, S. Crittenden, 2014, *Nanoscale dielectric measurements from electrostatic force microscopy*, *Mod. Phys. Lett. B* 28 1430011, <http://dx.doi.org/10.1142/S0217984914300117>
6. B. Kumar, S. Crittenden, 2013, *Stern potential and Debye length measurements in dilute ionic solutions with electrostatic force microscopy*, *Nanotechnology* 24, 435701, <http://dx.doi.org/10.1088/0957-4484/24/43/435701>

(d) Synergistic Activities

1. Mentored high school and undergraduate summer students (18 in the last five years, including 4 minority students and 6 women) as part of the SC-AMP (South Carolina Alliance for Minority Participation), GSSM (Governor's School for Science and Mathematics) SPRI (Summer Program for Research Interns), and NSF REU programs, as well as two high school students unaffiliated with a formal program. Both the SC-AMP and GSSM SPRI are similar to the REU program. Students work on a research project for six to ten weeks over the summer, giving a poster presentation at the end.
2. Regular participant in the U. SC Physics Department's R. L. Childers Day at the Fair, in which 2500+ high school students from around the State learn physics in the field through hands-on demonstrations and guided experiments on the fair rides.
3. Developed a new advanced undergraduate laboratory course in biophysics, which included a \$200k internal grant from the University to design and build three dual-trap optical tweezers.

4. Revamped the Department's Advanced Laboratory courses to double the amount of required laboratory time for undergraduates and refocused that time on non-scripted experimentation.