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Majetich is a professor in the Physics Department at Carnegie Mellon University. She received her PhD degree in condensed matter physics from the University of Georgia, and then worked at Cornell University as a postdoc. Her research interests focus on magnetic nanoparticles and nanostructures—including both materials preparation and nanoscale characterization—for potential applications in data storage media, biomedicine, high frequency inductors, and permanent magnets. She has authored over 150 papers and has three patents. She has received a National Young Investigator Award from the US National Science Foundation, was a 2007 Distinguished Lecturer of the IEEE Magnetics Society, and is a Fellow of the American Physical Society.



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### Jacob Alldredge

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### Roy Chantrell

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Chantrell is a professor in the Department of Physics at The University of York. Prior to his current chair, he was director at Seagate Research (Pittsburgh). His research interests are in the development of theoretical and computational modeling of magnetic materials. His group is currently developing multiscale models linking *ab initio*, atomistic, and mesoscopic approaches. He is editor of the *Journal of Magnetism and*

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### Jon Dobson

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Evans is currently a post-doctoral research fellow at the University of York, where he also obtained his PhD degree in 2008. His research has centered on understanding the effects of atomic structure and disorder on the physical properties of magnetic materials, ultrafast magnetism, and heat-assisted magnetic recording. He is also the lead developer of the open source VAMPIRE

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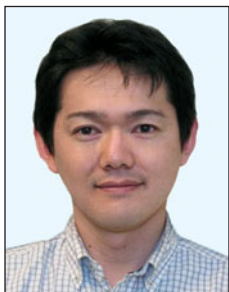


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Carnegie Mellon University, Pittsburgh, PA, USA; tel. 412-268-2319; and email [halong@andrew.cmu.edu](mailto:halong@andrew.cmu.edu). Wen has been a postdoctoral research associate in the Physics Department at Carnegie Mellon University since 2011. He received his PhD degree in materials science and engineering from the University of Washington in 2010. His dissertation focused on magnetic, thermal, and electrical properties of cobalt-based magnetic nanocomposites. His current research focus is to fabricate large-area self-assembled mono-

layers of nanoparticles and use them as nanomasks to fabricate dense hole and pillar arrays with a feature size ~10 nm.



**Gary Zabow**  
National Institute of Neurological Disorders and Stroke, Bethesda, MD, USA; tel. 303-497-4657; and email [zabow@boulder.nist.gov](mailto:zabow@boulder.nist.gov). Zabow is a senior research fellow at the National Institutes of Health (NIH) and a concurrent guest researcher at the National Institute of Standards and Technology (NIST). He earned a PhD degree from Harvard University. His research interests range widely and include atomic physics, microfluidics, magnetism, magnetic resonance imaging (MRI), and micro- and nanofabrication techniques. His current research focuses on

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