Professor Wysocki is the Ohio Eminent Scholar of Macromolecular Structure and Function, and director of the Campus Chemical Instrument Center in Department of Chemistry and Biochemistry at Ohio State University. She earned bachelor's degree in chemistry at Western Kentucky University in 1982, and her doctorate in chemistry at Purdue University in 1987. After doing post-doctoral work at Purdue and at the Naval Research Laboratory, she joined Virginia Commonwealth University as an assistant professor in 1990. She was promoted to associate professor in 1994. She joined the University of Arizona in 1996, and was promoted to professor in 2000. Most recently, she was chair of the Department of Chemistry and Biochemistry at Arizona. Professor Wysocki joined OSU in August 2012, as an Ohio Eminent Scholar.

Research in Professor Wysocki’s group is separated into three broad areas: determination of peptide dissociation mechanisms as a means for improving programs used for automated sequencing of peptides and proteins; biomarker discovery for foreign organism detection, and disease diagnosis using proteomics methods; and implementation of surface-induced dissociation into commercial time-of-flight instruments.