

Materials List for:

Identification of Metal Oxide Nanoparticles in Histological Samples by Enhanced Darkfield Microscopy and Hyperspectral Mapping

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Materials

Name	Company	Catalog Number	Comments
CytoViva 150 Unit (condenser)	CytoViva (Auburn, AL)		mounted to Olympus BX43 microscope
Olympus BX43 Microscope - Analyzer Slot - HSI with 10x and 40x air objectives and 100X oil immersion objective	obtained through CytoViva (Auburn, AL)		for use with CytoViva 150 Unit condenser
Dagexcel-M Digital Firewire Camera - Cooled; includes Exponent 7 software	obtained through CytoViva (Auburn, AL)		enhanced darkfield camera and software
CytoViva Hyperspectral Imaging System 1.4; includes Pixelfly hyperspectral camera, XY stage controller, ENVI hyperspectral imaging software	obtained through CytoViva (Auburn, AL)		hyperspectral camera and software
cleanroom cleaned glass microscope slides (glass B slides)	Schott NEXTERION	1025087	reduced debris and artifacts compared to conventional glass microscope slides for optimal imaging
cleanroom cleaned glass microscope coverslips (#1.0; 22 mm x 22 mm x 1.45 mm)	Schott NEXTERION	custom	reduced debris and artifacts compared to conventional glass coverslips for optimal imaging
type A microscopy immersion oil	Fisher Scientific	12368B	multiple suppliers
70% isopropanol in water			multiple suppliers
ImageJ software	National Institutes of Health (NIH)		free open-source software online download
metal oxide nanoparticles	supplied to the research team by industrial partners		alumina, silica, and ceria nanoparticles in aqueous suspensions. Due to a Non-Disclosure Agreement between the authors and industry partners, further product information cannot be disclosed.