Research Data Supporting "Gyroid Optical Metamaterials: Calculating the Effective Permittivity of Multidomain Samples"

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The data is arranged into three folders (.zip files; **bold**), each of which contains the follow files (.tif and .txt files; *italics*). This data and the descriptions below should be read in conjunction with the manuscript (particularly the "Experimental Methods" section) and "supporting info", both of which may be found at the following DOI: http://pubs.acs.org/doi/abs/10.1021/acsphotonics.6b00400

1. **Optical Microscopy**
   - *Figure1a.tif;* optical micrograph of multidomain gold gyroid metamaterial under linearly polarized light; sample "T10", linearly polarized light, reflection, x20 magnification objective.

2. **Scanning Electron Microscopy**
   - *Figure1b.tif;* electron micrograph of an individual domain of the sample; sample "T10", 5.00kV acceleration voltage, 1.7mm working distance.
   - *FigureS1.*tif*;* electron micrograph of gold gyroid metamaterial sample (top view) highlighting the small size and random orientation of the domains; sample "T10", 5.00kV acceleration voltage, 1.7mm working distance.

3. **Reflection Goniometer Measurements**
   - *Angles.txt;* angles in degrees at which reflection goniometer measurements are taken, defined as 90° - (angle of incidence), i.e. the complementary angle of those presented in the manuscript; single column.
   - *Wavelengths.txt;* wavelengths in nanometers at which reflection goniometer measurements are taken; single column.
   - *SilverMirrorReferenceSpectra_TE.txt;* transverse electric (TE) polarisation silver mirror goniometer reflectance spectra; rows correspond to those wavelengths in *Wavelengths.txt*, columns to those angles in *Angles.txt*.
   - *SilverMirrorReferenceSpectra_TM.txt;* transverse magnetic (TM) polarisation silver mirror goniometer reflectance spectra; rows correspond to those wavelengths in *Wavelengths.txt*, columns to those angles in *Angles.txt*.
   - *GyroidMeasuredSpectra_TE.txt;* transverse electric (TE) polarisation gyroid goniometer reflectance spectra; sample "T10"; rows correspond to those wavelengths in *Wavelengths.txt*, columns to those angles in *Angles.txt*.
   - *GyroidMeasuredSpectra_TM.txt;* transverse magnetic (TM) polarisation gyroid goniometer reflectance spectra; sample "T10"; rows correspond to those wavelengths in *Wavelengths.txt*, columns to those angles in *Angles.txt*.