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Title:Characterization of micro-powders for the fabrication of compression molded THz lenses
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Abstract:We investigate different micro-powders that can be used as base materials for THz lenses fabricated by compression molding. For this application materials with a very weak THz absorbance and low dispersion are required. By measuring the THz absorption coefficient and refractive index of pellets pressed from the different micro-powders, we identify several materials that are well suited for the fabrication of compression molded THz lenses (CMLs). In addition, a considerable range of the refractive index is covered by the samples, which will allow for the fabrication of CMLs with different focal lengths for one and the same lens design.
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