SUM FREQUENCY GENERATION SIGNAL LINESHAPE DEPENENCE ON AZIMUTHAL ROTATION OF SINGLE CRYSTAL SILVER SURFACES

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The dependence of azimuthal rotation angle of single crystal Ag surfaces on resonant SFG line shapes is examined for ex-situ bare and modified Ag crystal surfaces. Interesting line shapes arising from resonant transitions change dramatically with azimuthal rotation and show varying degrees of symmetry depending on the underlying metal crystal face. The transformations of resonant signal line shapes from peak, dip, and derivative-shaped features are examined and correlated with the changing non-resonant signals acquired from the bare metals.