



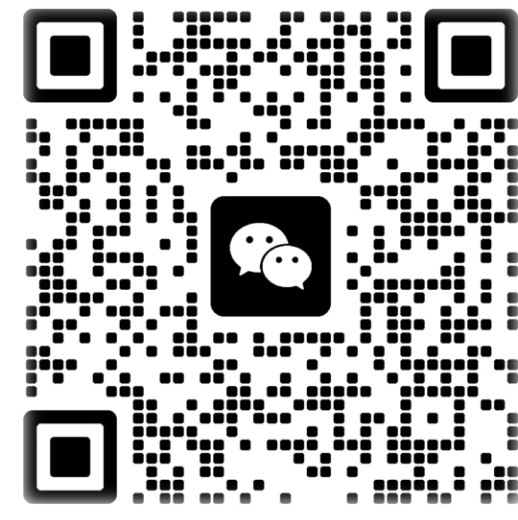
Twist-enabled Transmissive Metasurface with Co-polarized Geometric Phase



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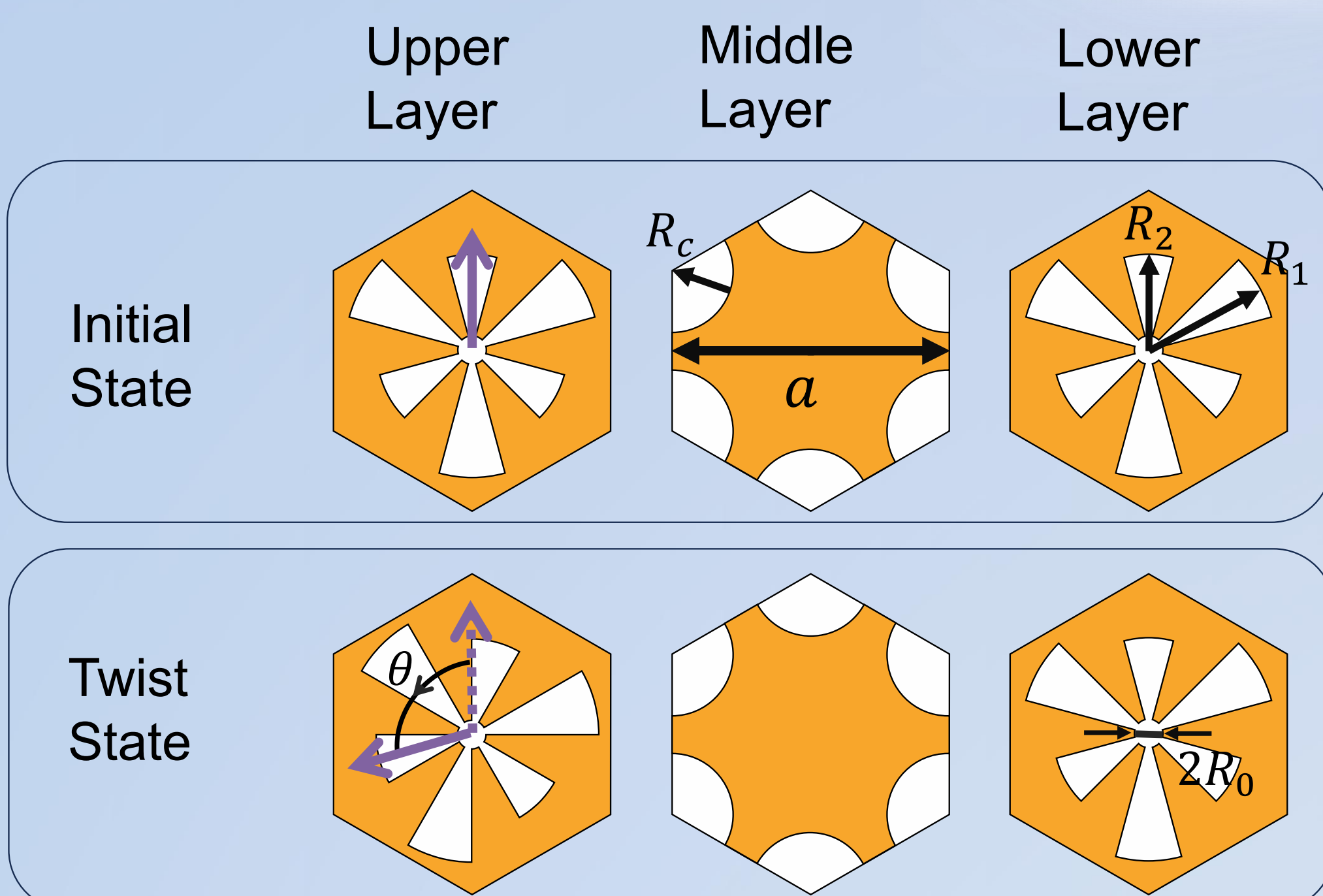


Group Web

Publication Info: J. Yu, H. Li, S. Kang, et al. "Twist-Enabled Transmissive Metasurface with Co-Polarized Geometric Phase." *Laser Photonics Rev* 19, no. 19 (2025): e02026.

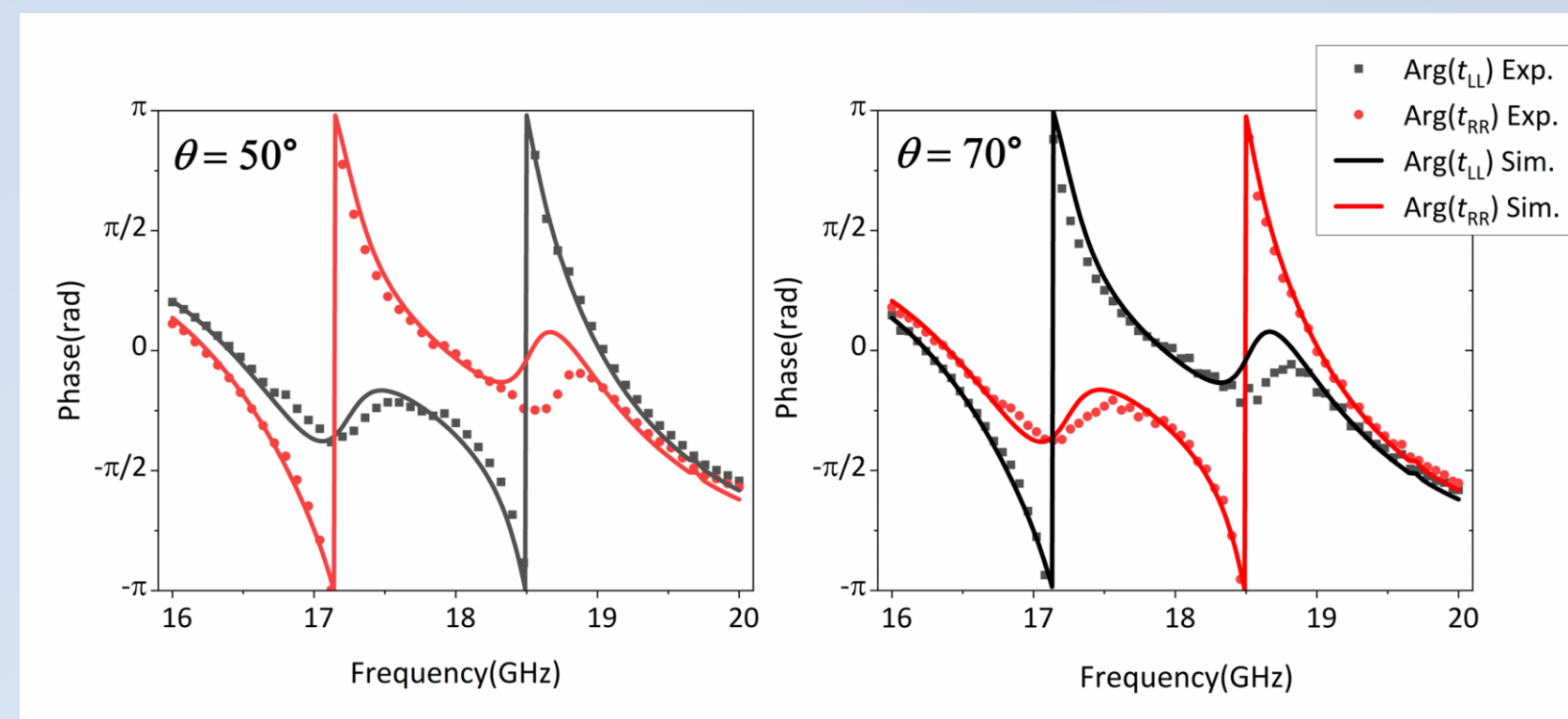
Three metallic layers

Tri-layer metasurface

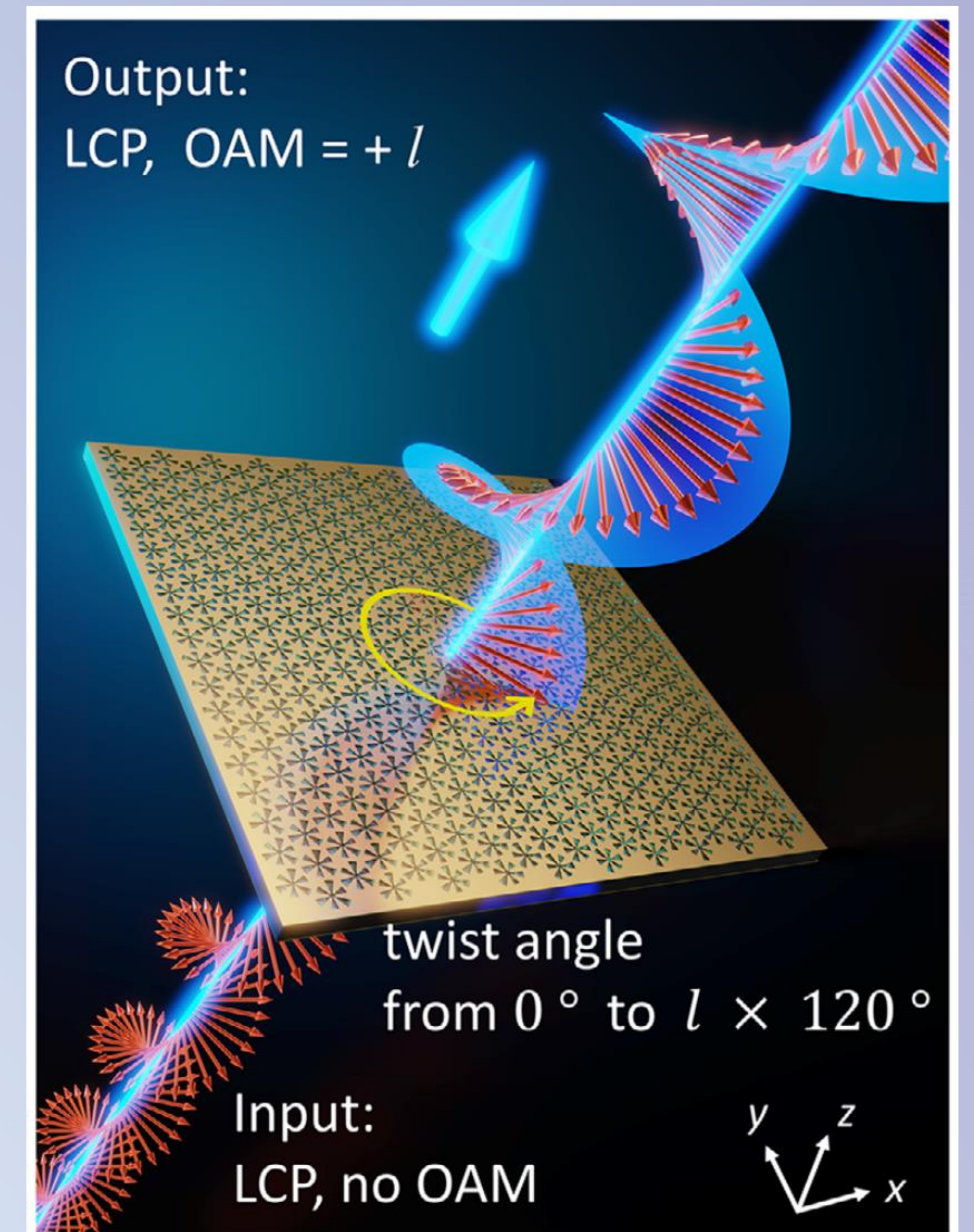


Orange : Metallic area (copper layer)
Dielectrics: low-loss laminates (F4B)

Experimental verification

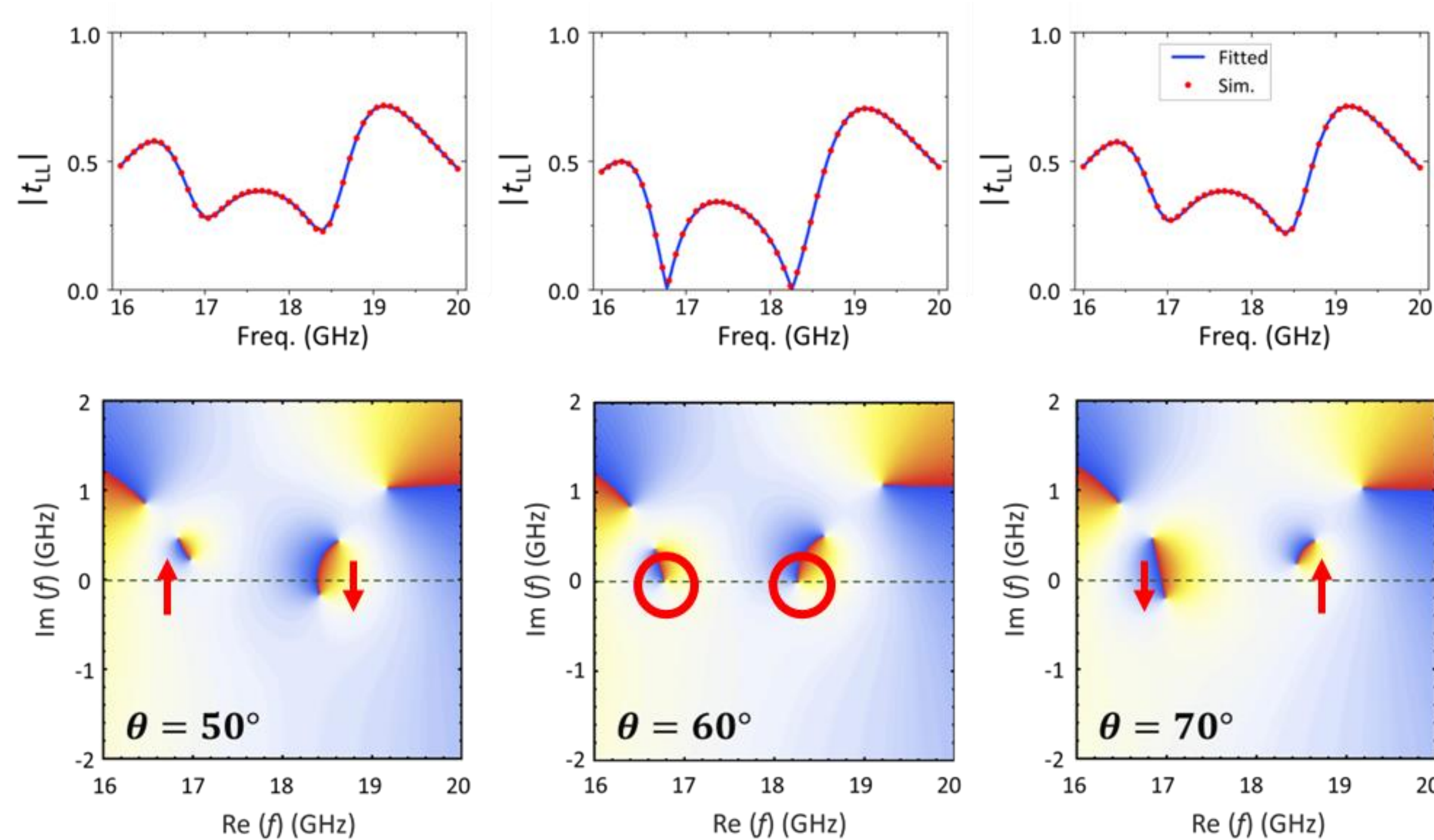


Schematic Diagram

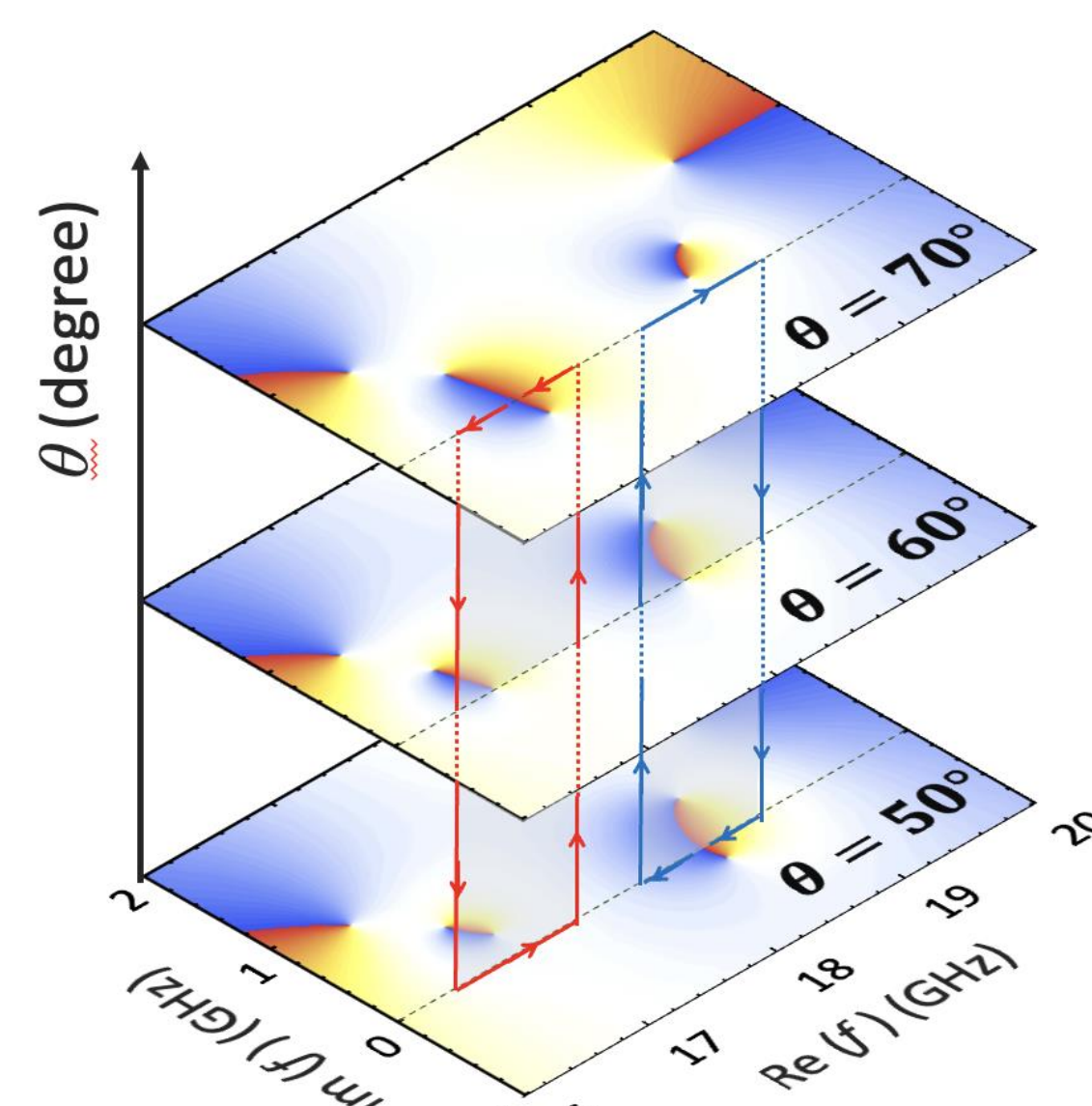


Simulated & Fitted

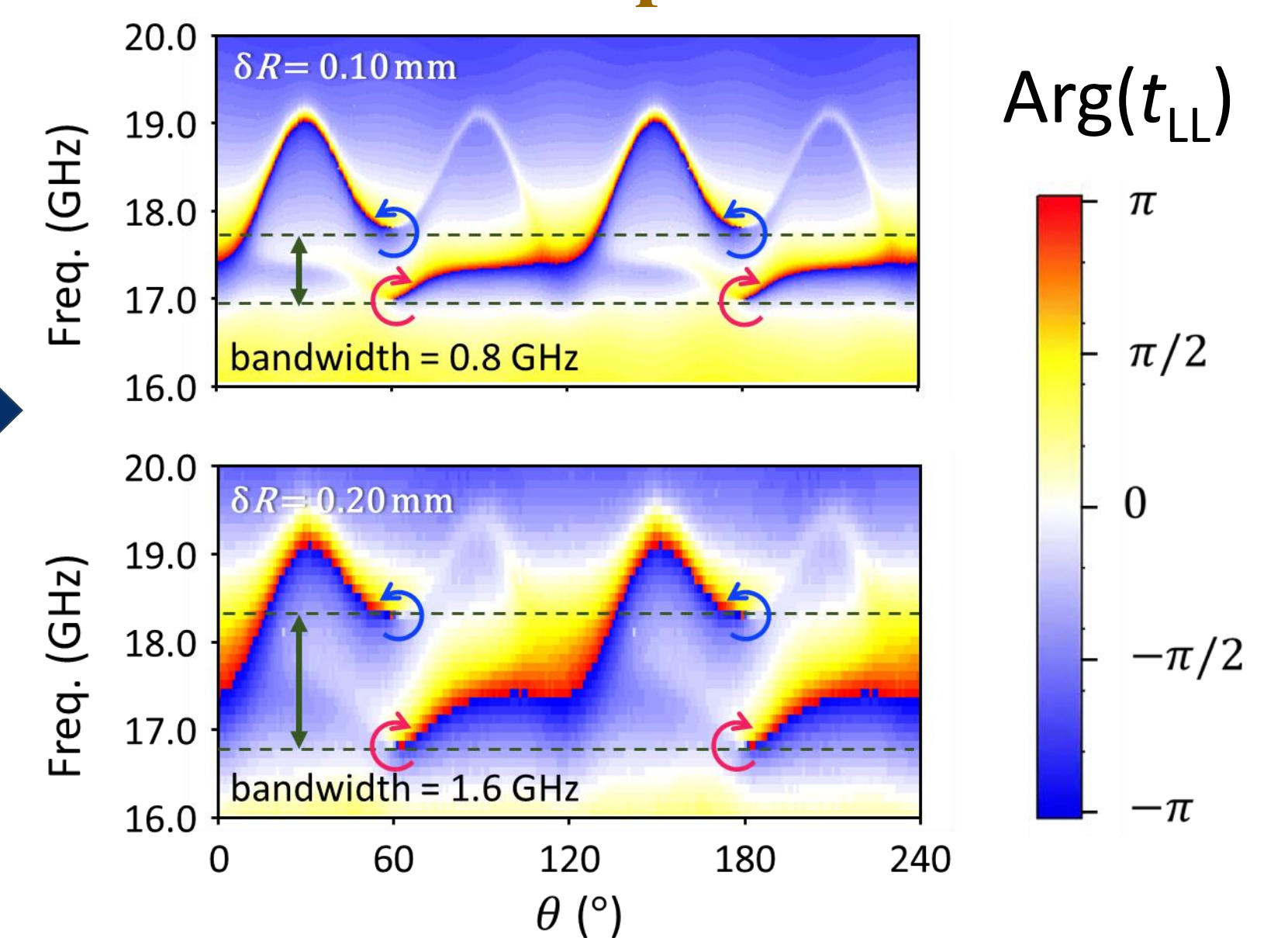
Simulated & Fitted Transmission and Complex Plane



$$\text{Co-polarized transmission: } t = t_0 + \sum_{n=1}^4 \frac{c_n \gamma_n \omega_n}{\omega^2 - \omega_n^2 - 2i\gamma_n \omega}$$



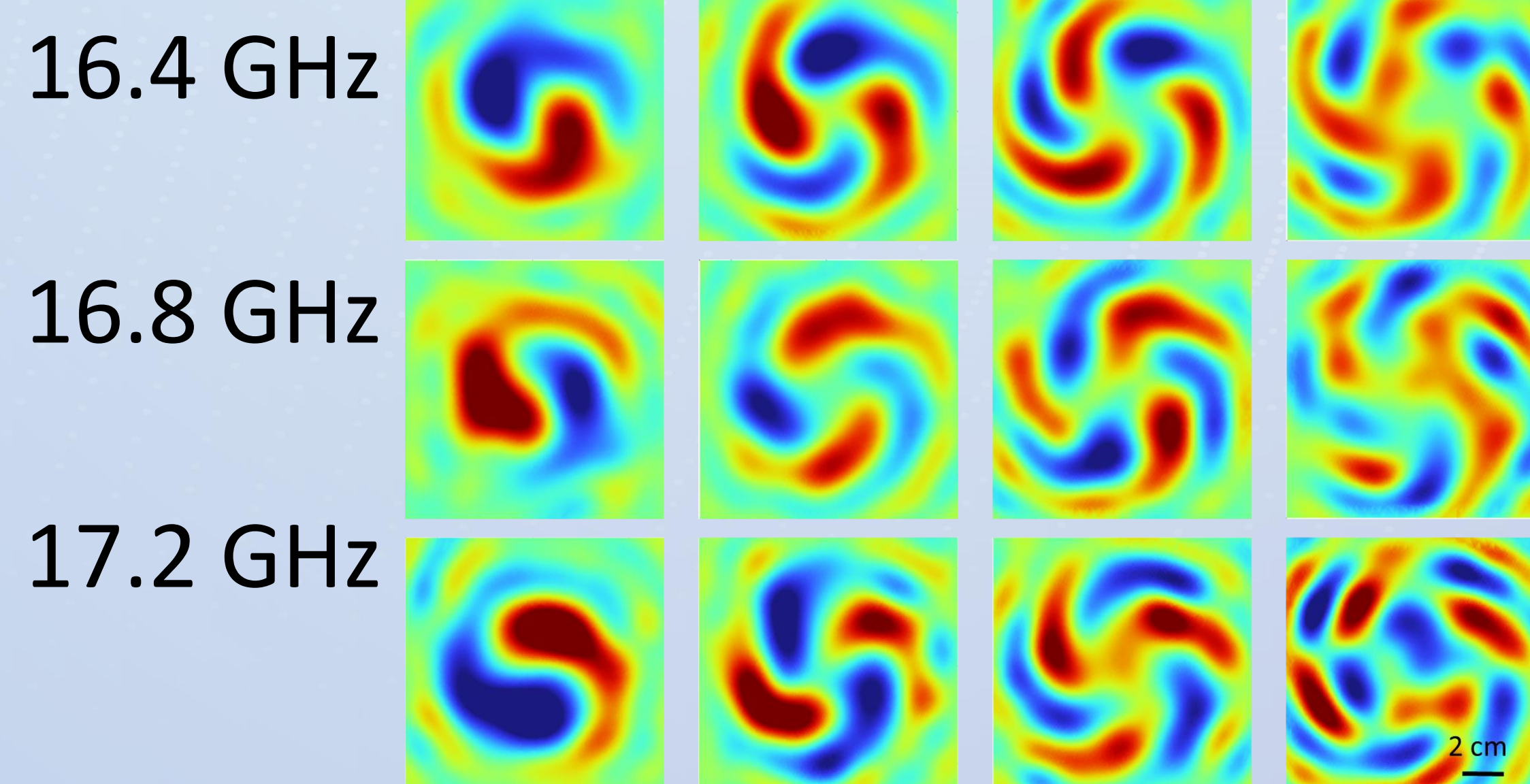
Parameter Space



OAM (orbit angular momentum)

Simulated Result

$l = 1$ $l = 2$ $l = 3$ $l = 4$



Experimental Result

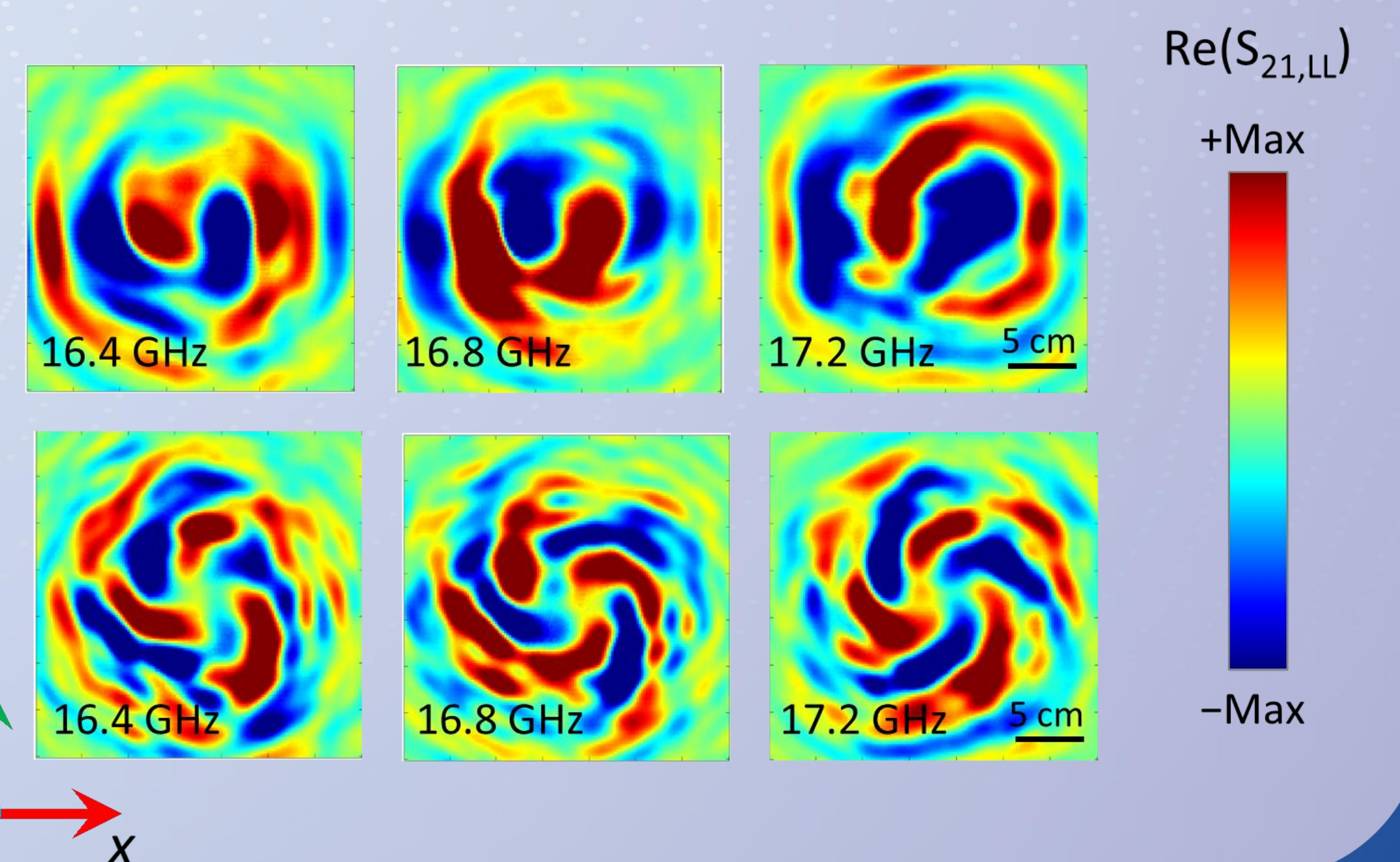


Photo of Sample

