Supplemental Materials – SpongeCake: A Layered Microflake Surface Appearance Model

ANONYMOUS AUTHOR(S)

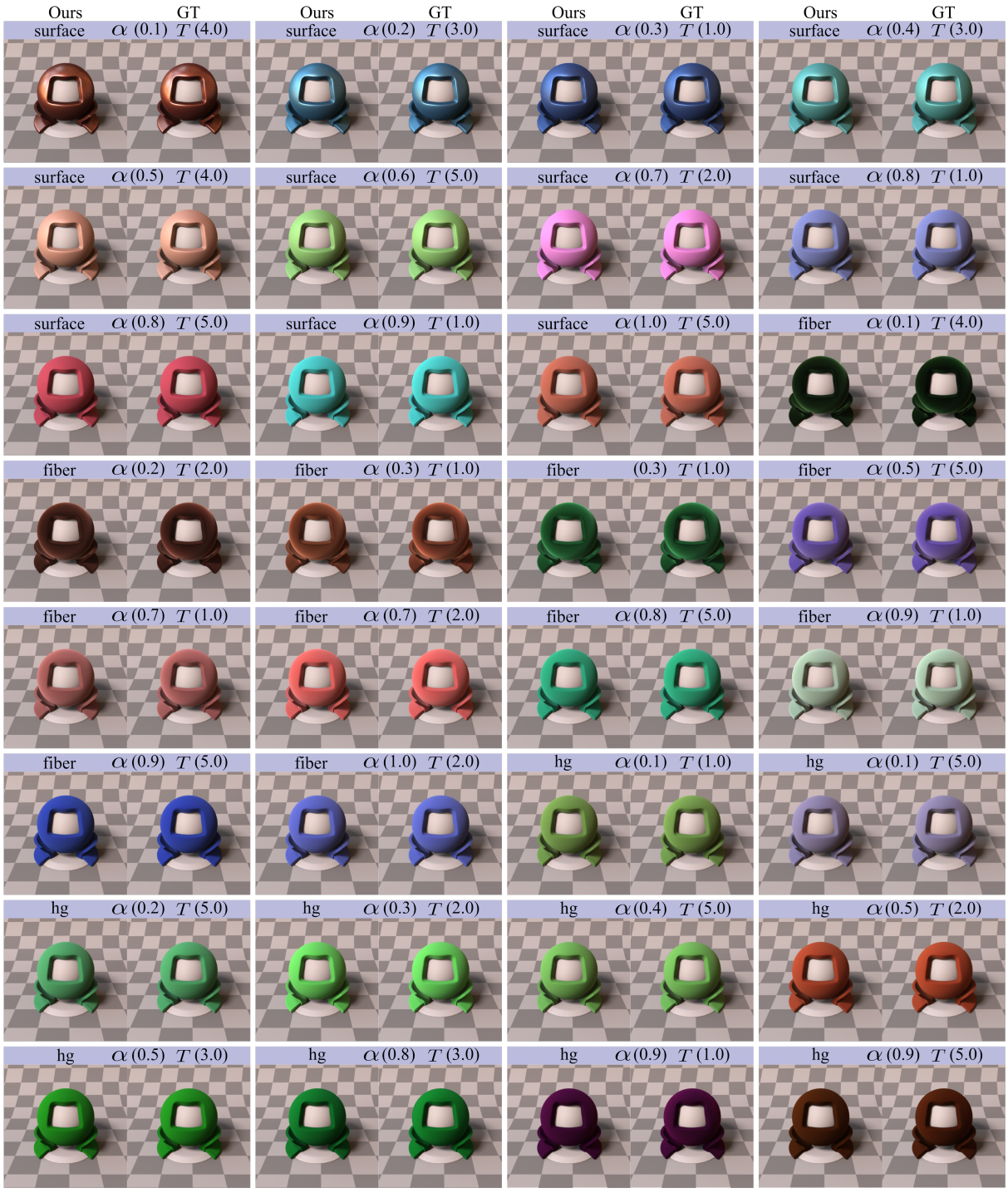

Fig. 1. Multiple scattering validation for a set of single-layer materials. For each example, we list the microflake type, roughness α and thickness T. We find small differences from the ground truth. The corresponding lobe visualizations are shown in Fig. 2, 3 and 4.

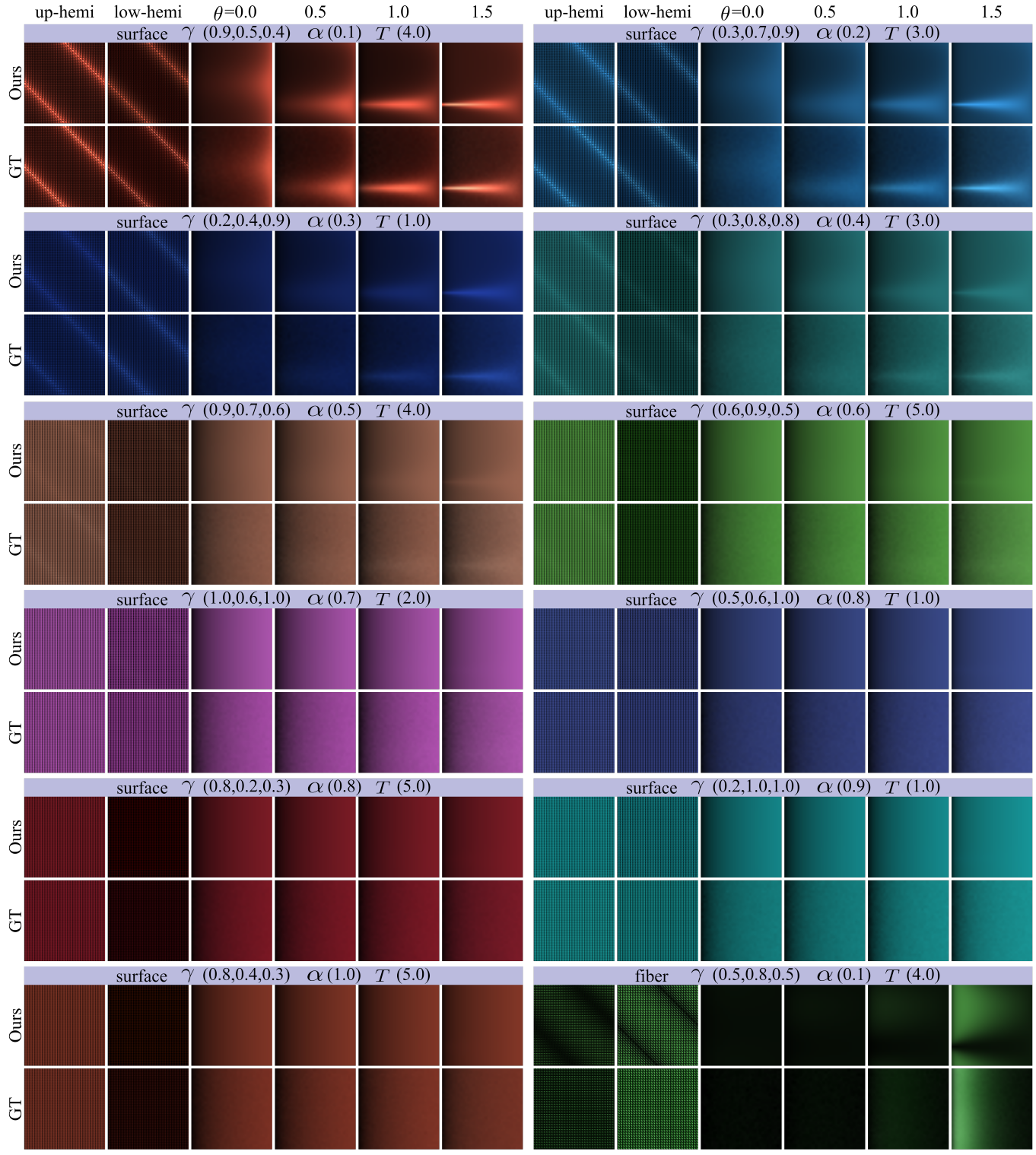

Fig. 2. Lobe visualizations for multiple scattering for a set of single-layer materials. For each example, we list the microflake type, reflectance γ, roughness α and thickness T. The first two columns represent the entire BSDF (top and bottom hemispheres), with pixel rows corresponding to a discretization of incoming directions, and pixel columns corresponding to outgoing directions. The latter four columns visualize the outgoing lobe given a fixed incoming direction at the specified angle θ.

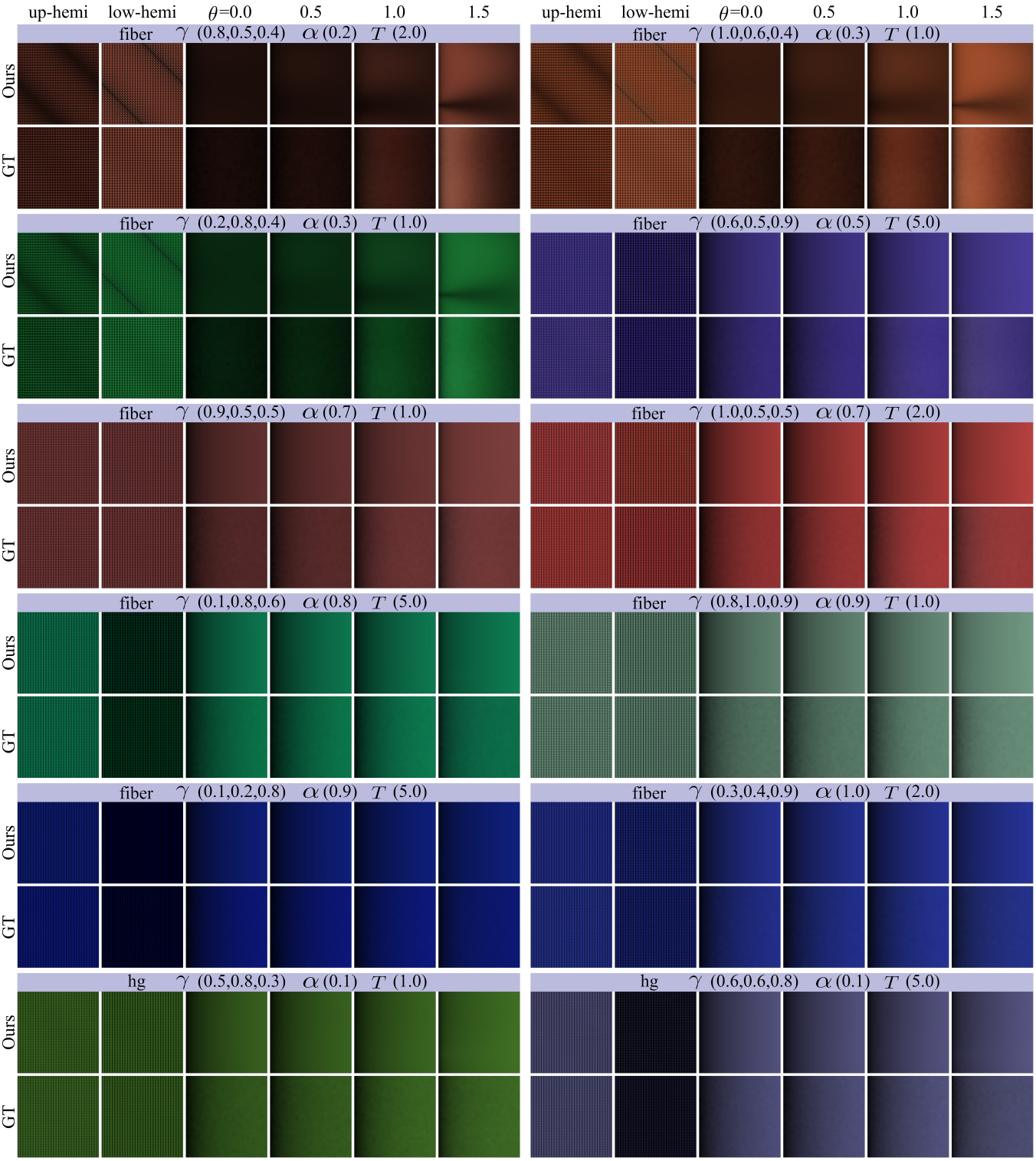

Fig. 3. More examples: Lobe visualizations for multiple scattering for a set of single-layer materials.

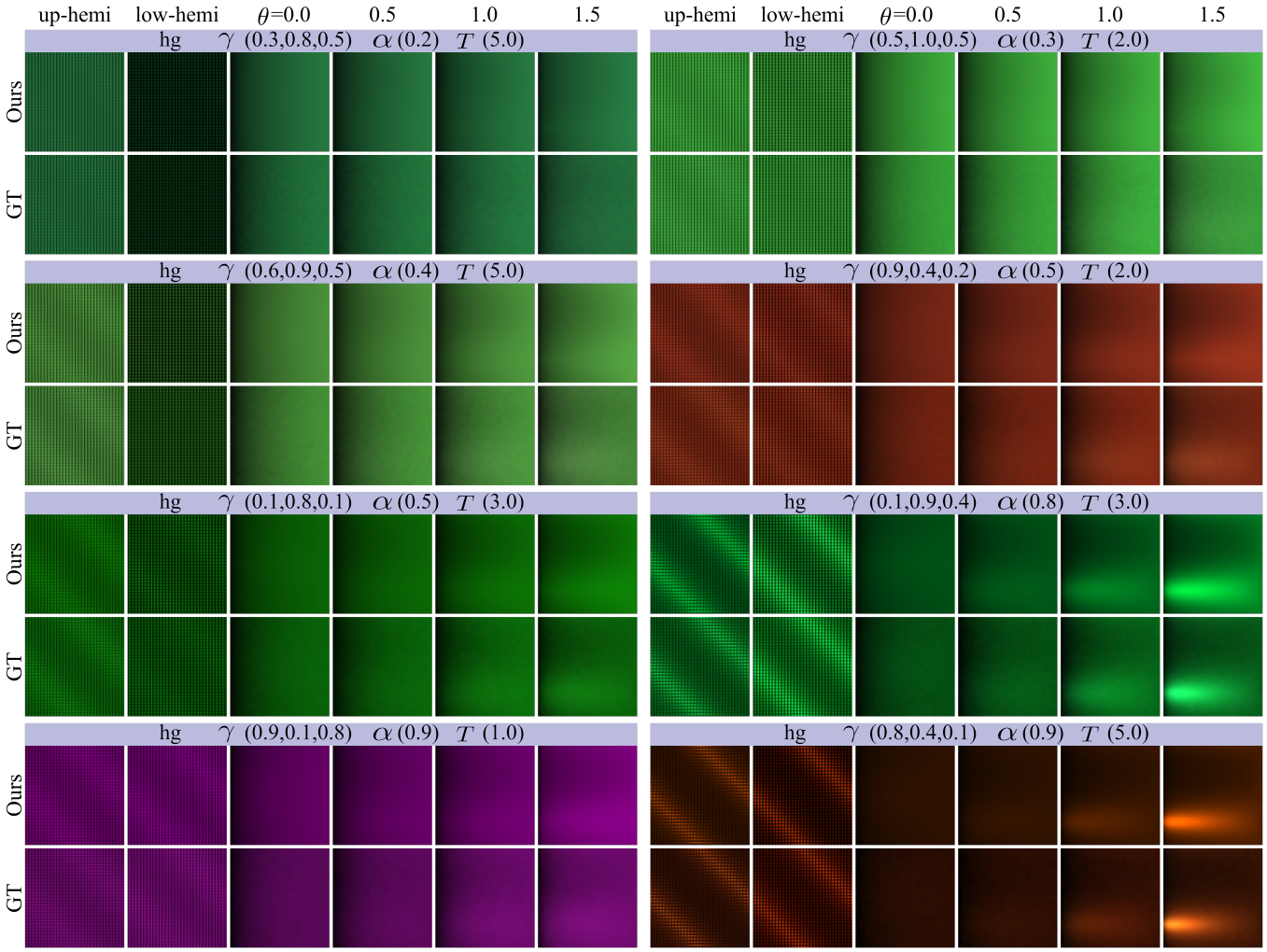

Fig. 4. More examples: Lobe visualizations for multiple scattering for a set of single-layer materials.

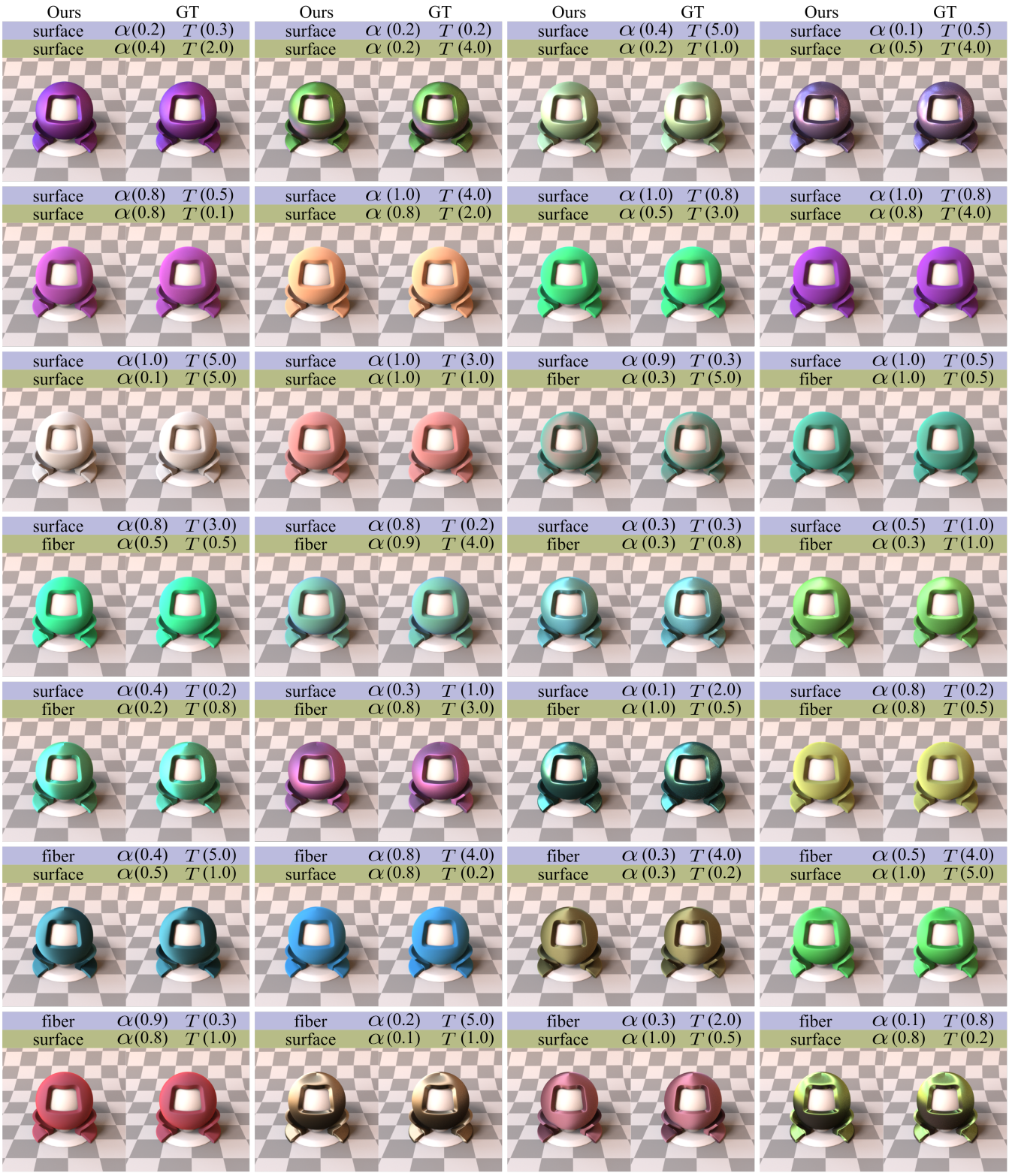

Fig. 5. Multiple scattering validation for a set of two-layer materials. For each example, we list the microflake type, roughness α and thickness T. We find small differences from the ground truth. The corresponding lobe visualizations are shown in Fig. 7, 8, 9 and 10.

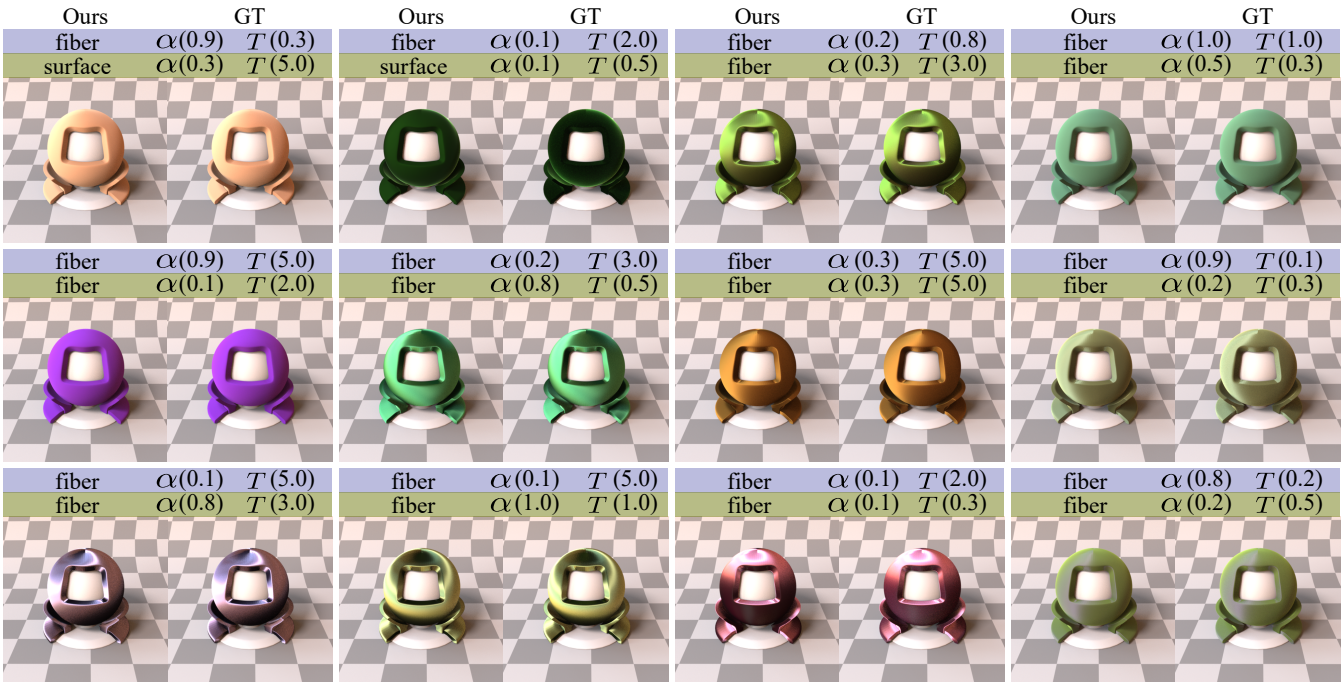

Fig. 6. More examples: multiple scattering validation for a set of two-layer materials.

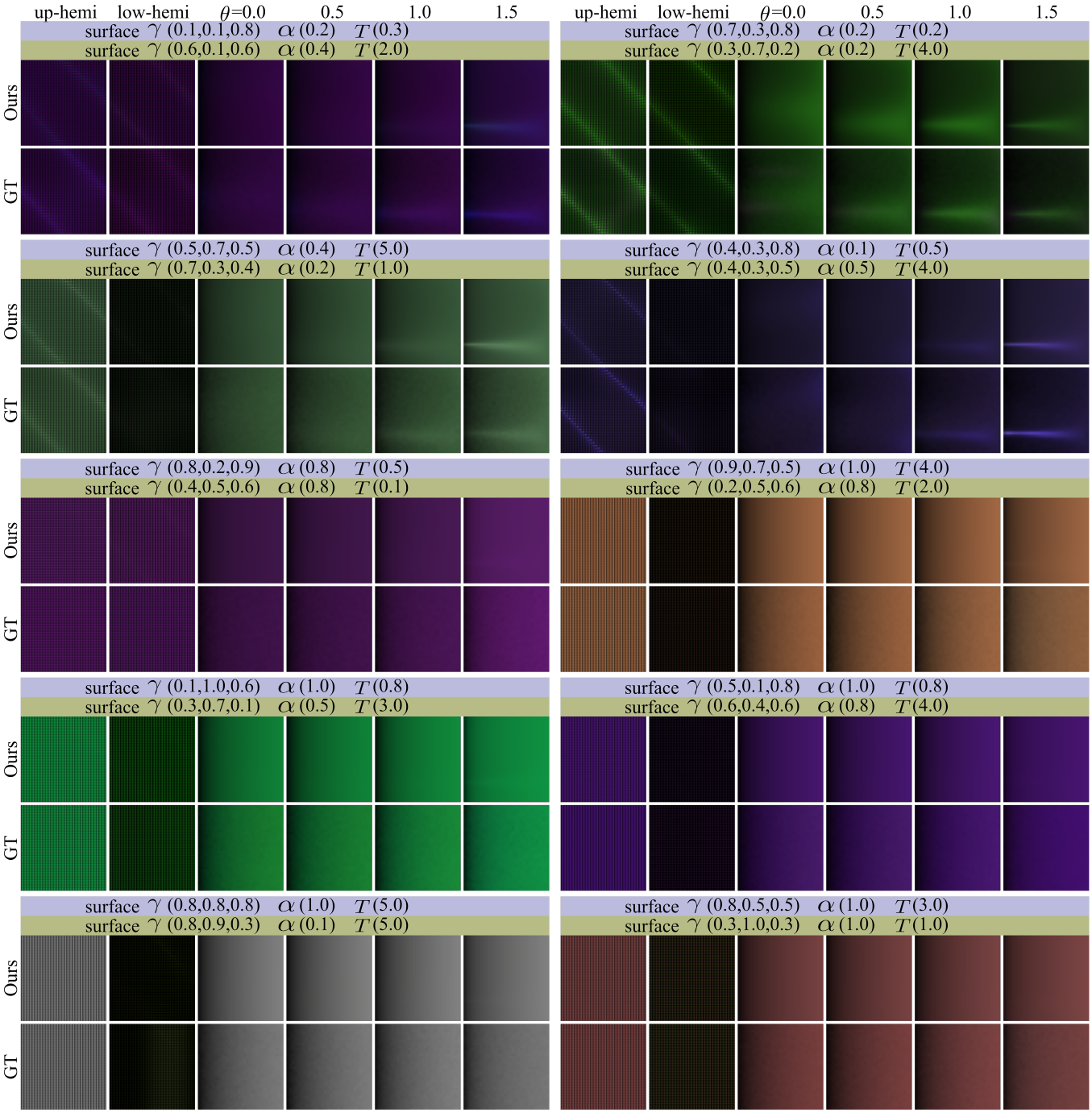

Fig. 7. Lobe visualizations for multiple scattering for a set of two-layer materials. For each example, we list the microflake type, reflectance γ, roughness α and thickness T. The first two columns represent the entire BSDF (top and bottom hemispheres), with pixel rows corresponding to a discretization of incoming directions, and pixel columns corresponding to outgoing directions. The latter four columns visualize the outgoing lobe given a fixed incoming direction at the specified angle θ.

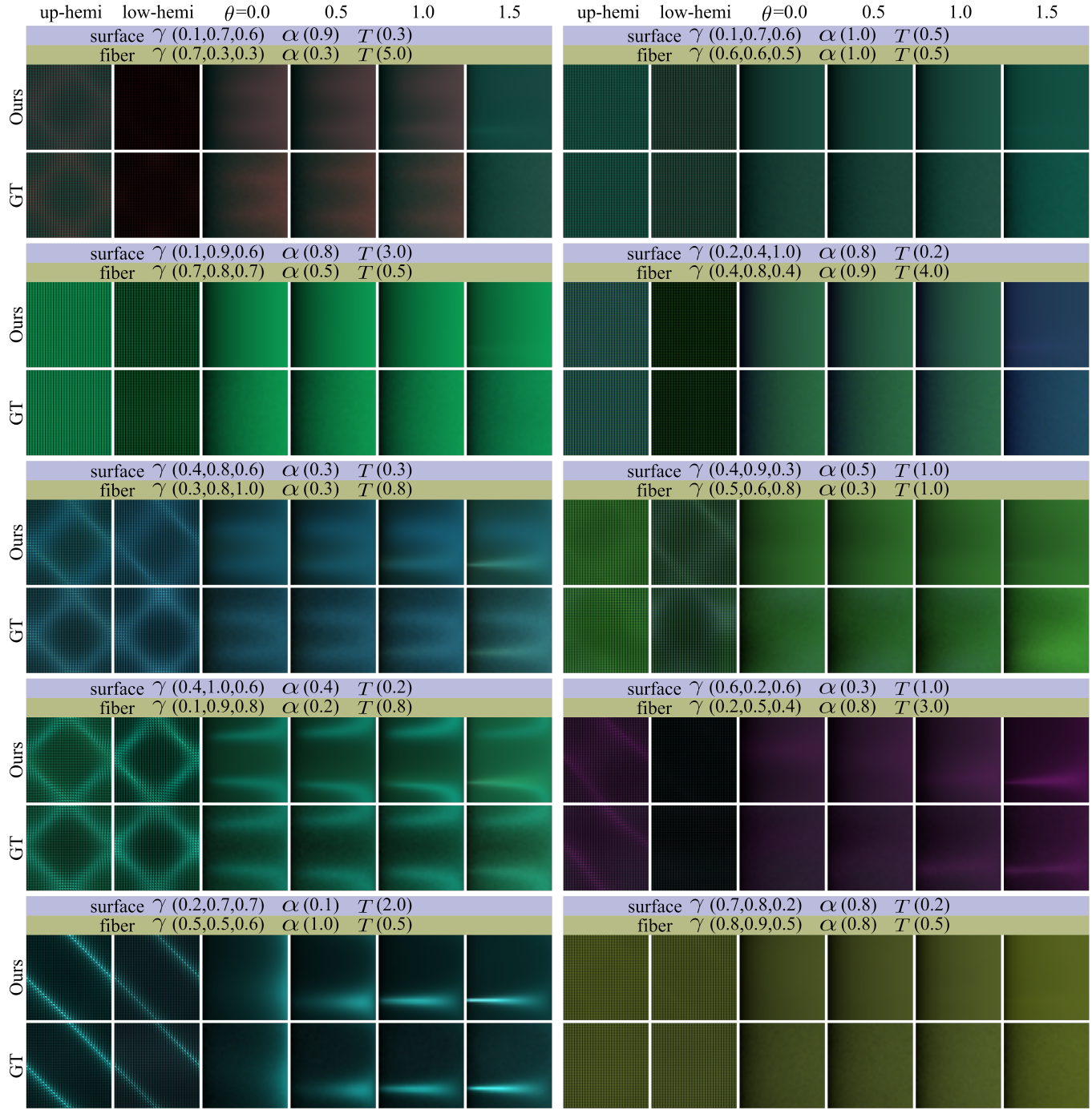

Fig. 8. More examples: Lobe visualizations for multiple scattering for a set of single-layer materials.

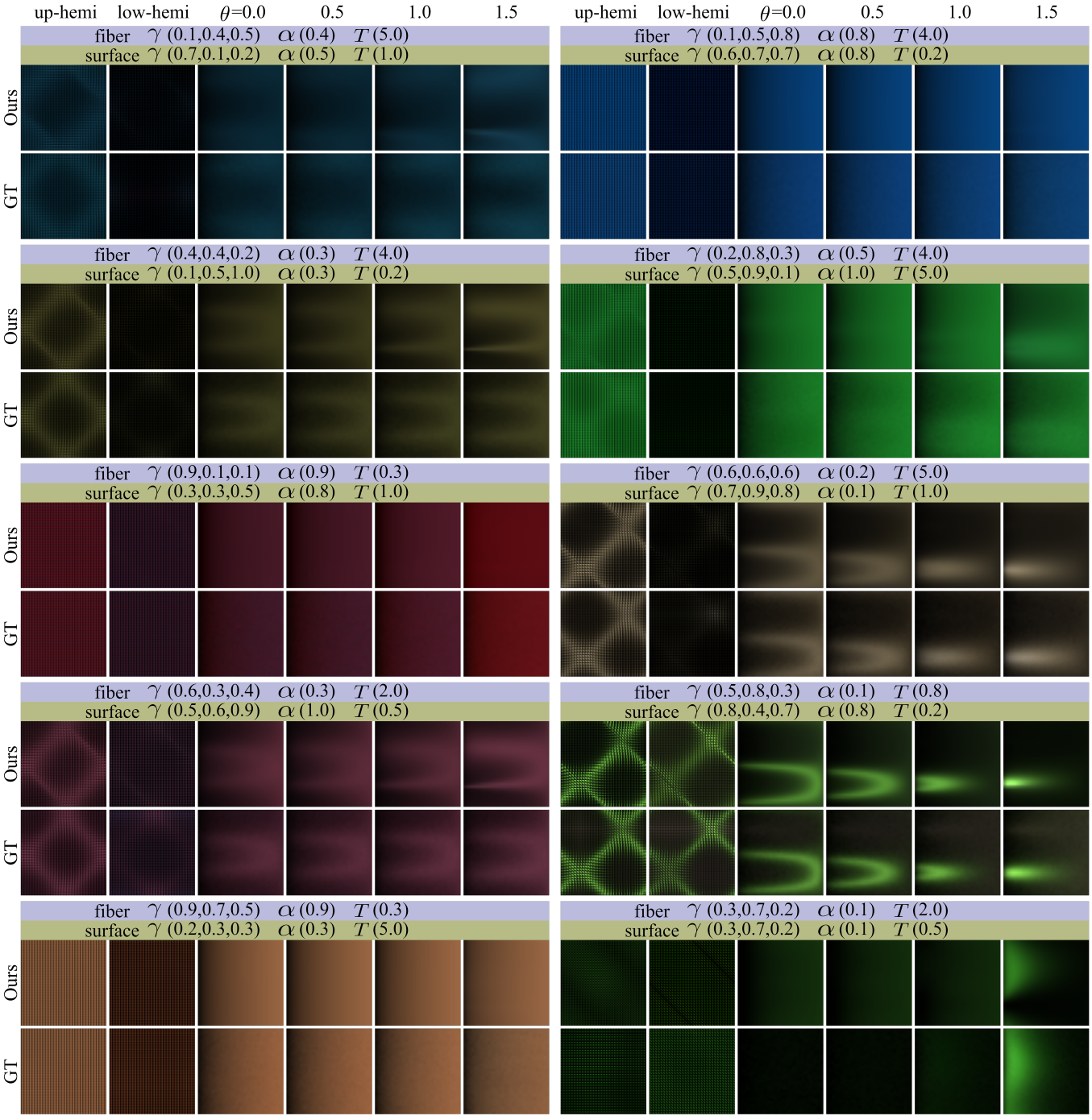

Fig. 9. More examples: Lobe visualizations for multiple scattering for a set of single-layer materials.

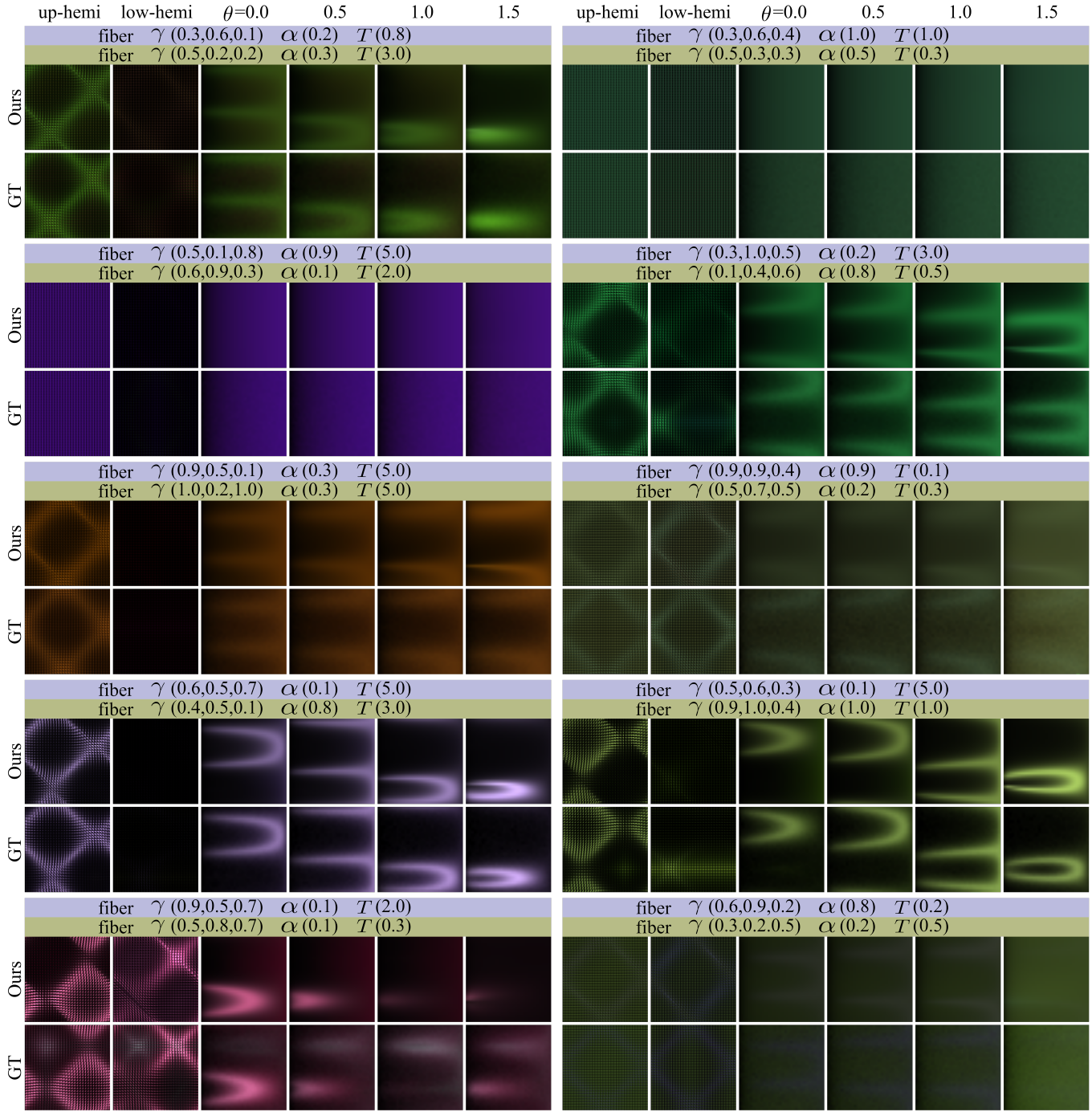

Fig. 10. More examples: Lobe visualizations for multiple scattering for a set of single-layer materials.