Laser Micro Texture Processing

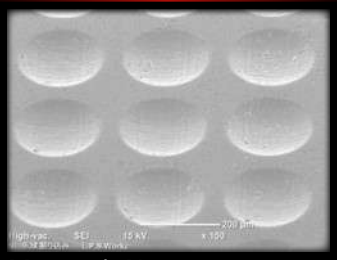
with an Ultra-short Pulse Laser

Feature1　Possible to apply a systematic fine periodic structure at the micron order

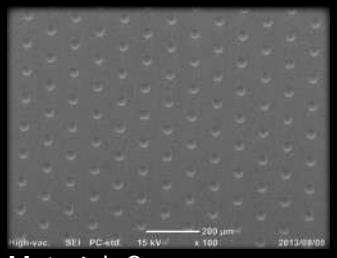
Feature2　High-quality processing with burr and the thermal impact suppressed to the minimum

Feature3　Possible to support all materials (e.g., metals, resins, glass and ceramics)

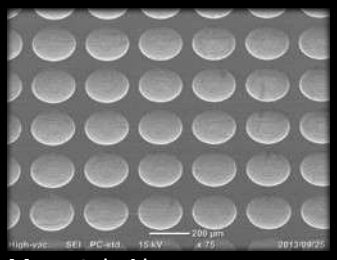
Dimple Processing



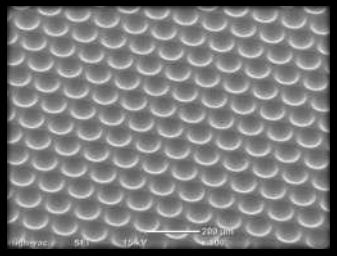
Material: Ni
Hole diameter: Φ200 μm
Depth: 30 μm



Material: Cu
Hole diameter: Φ35 μm
Depth: 10 μm

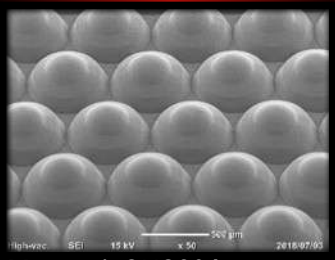


Material: Al
Hole diameter: Φ200 μm
Depth: 20 μm

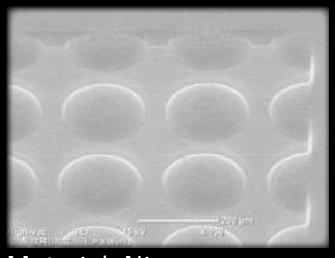


Material: SUS430
Hole diameter: Φ95 μm
Depth: 28 μm

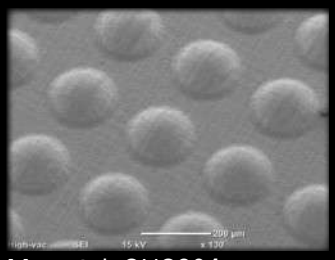
Embossing



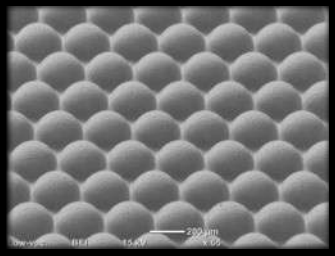
Material: SUS304
Diameter: 590 μm
Height: 230 μm



Material: Ni
Diameter: 200 μm
Height: 30 μm

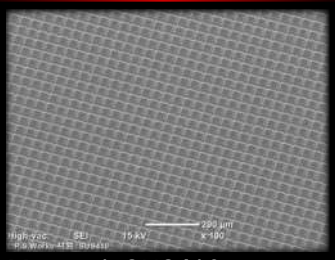


Material: SUS304
Diameter: 200 μm
Height: 30 μm

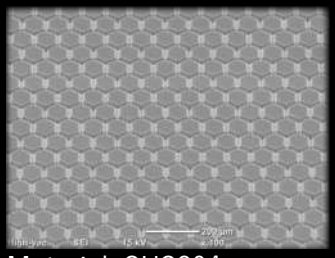


Material: Borosilicate glass
Diameter: 250 μm
Height: 125 μm

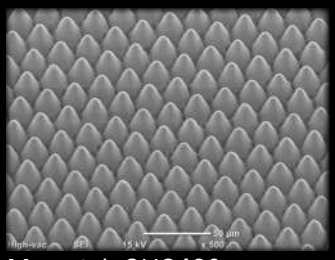
Lattice Groove Processing



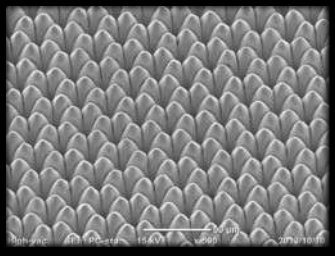
Material: SUS410
L/S: 20 μm / 20 μm
Groove depth: 2 μm



Material: SUS304
Side length: 50 μm
Groove depth: 10 μm

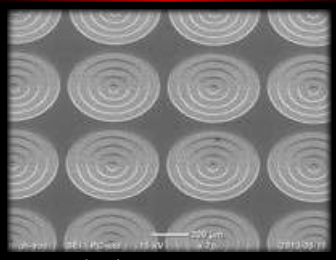


Material: SUS430
Height: 20 μm
Pitch: 20 μm

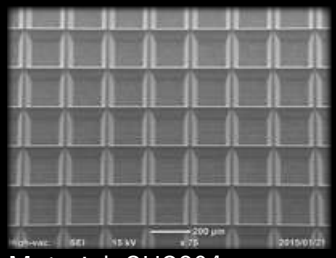


Material: SUS304
Side length: 15 μm
Groove depth: 17 μm

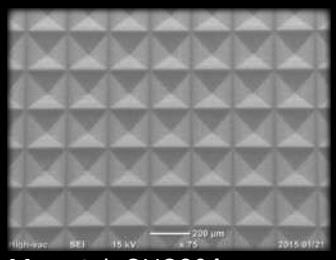
Three-dimensional Shapes



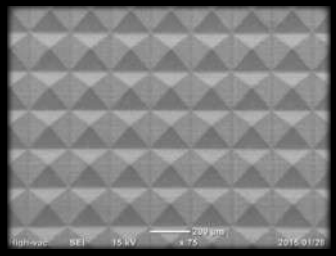
Material: Aluminum
Hole diameter:50,150,250,350,450 μm
Height dimensions: 6 μm for each stage



Material: SUS304
□ dimensions: 200 μm
Depth: 50 μm



Material: SUS304
□ dimensions: 190 μm
Depth: 50 μm



Material: SUS304
□ dimensions: 190 μm
Depth: 50 μm

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