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Title: Fast wettability transition from hydrophilic to superhydrophobic laser-textured stainless steel surfaces under low-temperature annealing

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Highlights

- Superhydrophobic surface on SUS304 was fabricated by laser texturing and annealing.
- Wettability transition was done within 4 hours only with low temperature annealing.
- The effect of grid pattern size upon the wettability change was studied.
- The effect of water droplet contact during wettability change was investigated.
- The mechanism and applications of superhydrophobic surface were proposed.

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