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Mimicking lizard-like surface structures upon ultrashort laser pulse irradiation of inorganic materials

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Graphical abstract



Research Highlights

- Two laser processing strategies were evaluated to process hierarchical nano- and microstructures on carbon alloyed steel surfaces
- Self-assembled ripples, grooves and spikes were generated by fs-laser irradiation
- Capillary channels with micro-dimple patterns were fabricated by ps-laser irradiation
- Lizard-like fluid transport properties can be realized by laser processing

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