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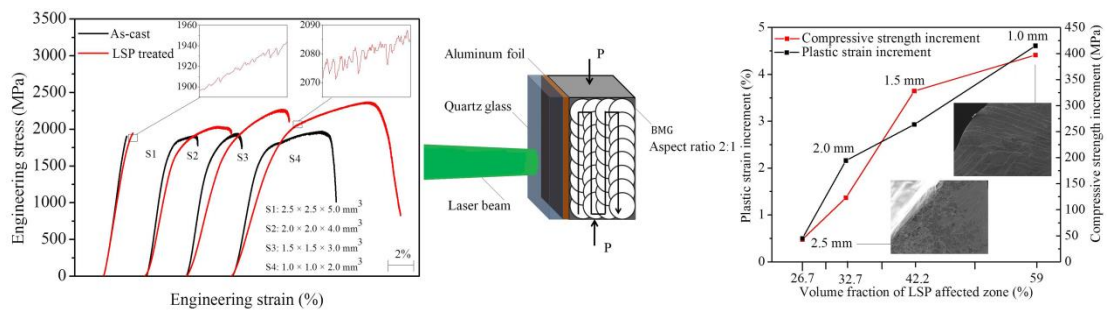
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Graphical abstract



Abstract:

In this study, laser shock peening (LSP) has been performed on brick-shaped $Zr_{41.2}Ti_{13.8}Cu_{12.5}Ni_{10}Be_{22.5}$ (vit1) bulk metallic glass (BMG) with different dimensions but the same aspect ratio of 2:1 to study the effects of LSP treatment and size-dependence on plasticity and compressive strength at room temperature. The results show that: (1) the plasticity of LSP treated specimens is still size-dependent, the smaller the specimen size is, the higher plasticity and compressive strength it has, which means the size effects of BMG can be preserved and inherited during LSP. (2) The same LSP treatment has different effects on different size specimens, the smaller the specimen size is, the greater effect it has, which

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