

# KL06



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## **Effects of laser peening on the very high cycle fatigue strength of additively manufactured maraging steel**

Recently, additive manufacturing (AM) has attracted interest as a new method for manufacturing parts. However, defects easily occur during the AM process, resulting in lower fatigue strength compared with the metals manufactured by the conventional method. The internal defects significantly affect fatigue strength in the very high cycle fatigue (VHCF) region exceeding  $10^7$  cycles. However, the effects of mechanical surface enhancement technology on the VHCF fatigue properties of AM metals are not clear. This keynote lecture will provide an overview of the effects of shot and laser peening technologies on the fatigue properties of AM metals. VHCF fatigue properties of AM maraging steel subjected to laser peening will be presented.

*Please also see the extended abstract.*

