

*Supplementary Information*

**Elucidating the mechanisms of enhanced lignin bioconversion by an  
alkali sterilization strategy**

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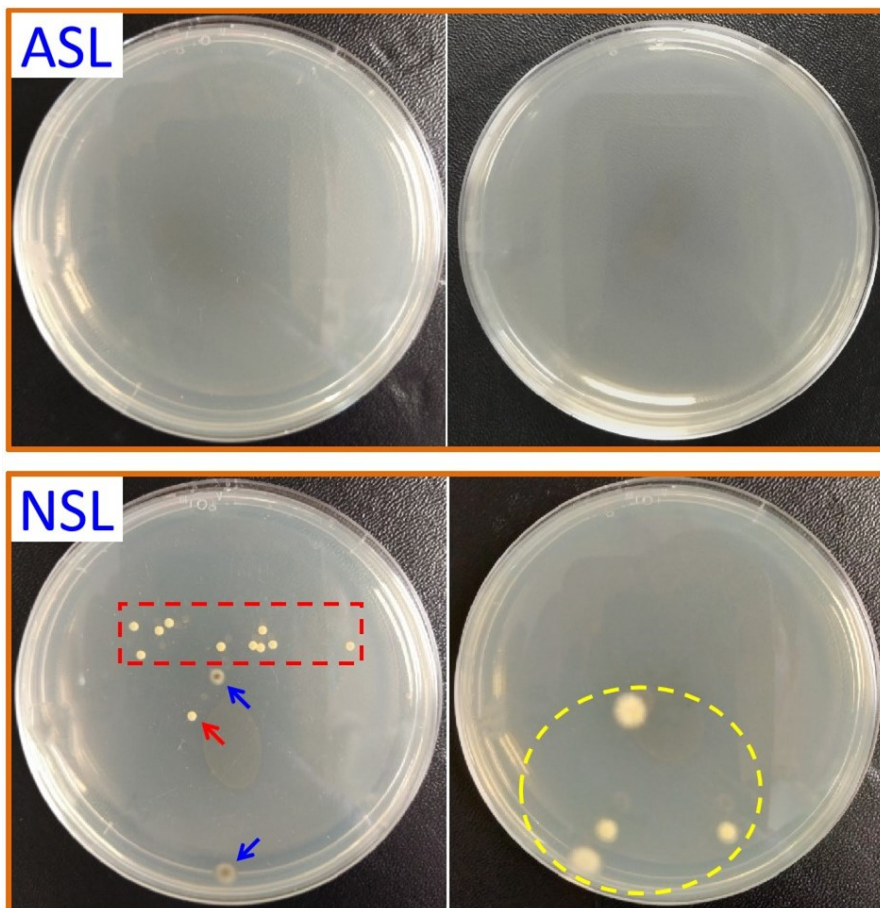
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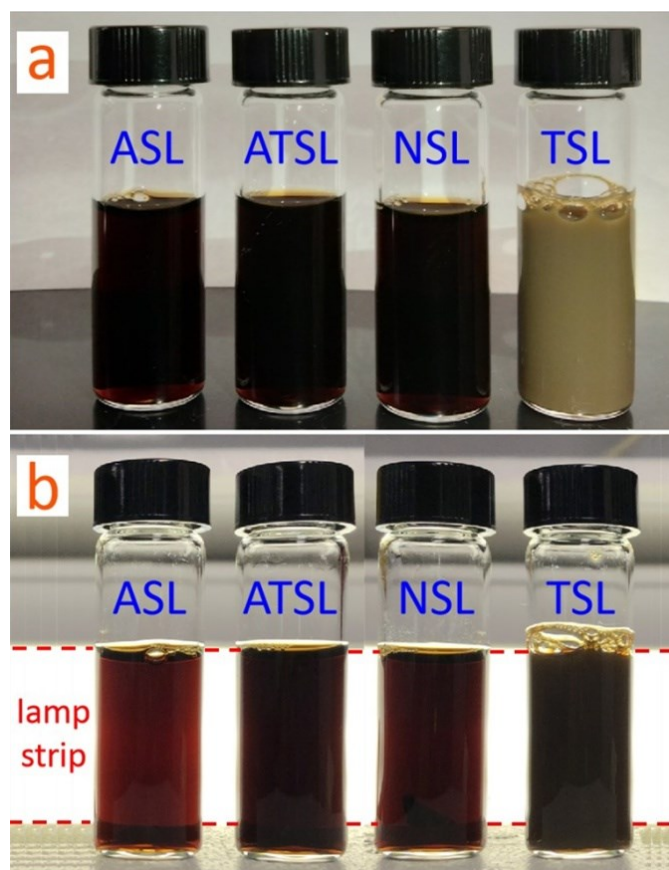
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**Fig. S1** Examination of the aseptic effect of alkaline sterilized lignin (ASL) and non-sterilized lignin (NSL) mediums by spread plate method. These experiments were conducted with two replicates.



**Fig. S2** Comparison of lignin medium color under natural light (a) and light transmittance in front of a 600-W fluorescent lamp strip (b). ASL: alkaline sterilized lignin, ATSL: alkaline and thermally sterilized lignin, NSL: non-sterilized lignin, TSL: thermally sterilized lignin.