**Supporting Information**

**Intelligent method to experimentally identify the fracture mechanism of red sandstone**

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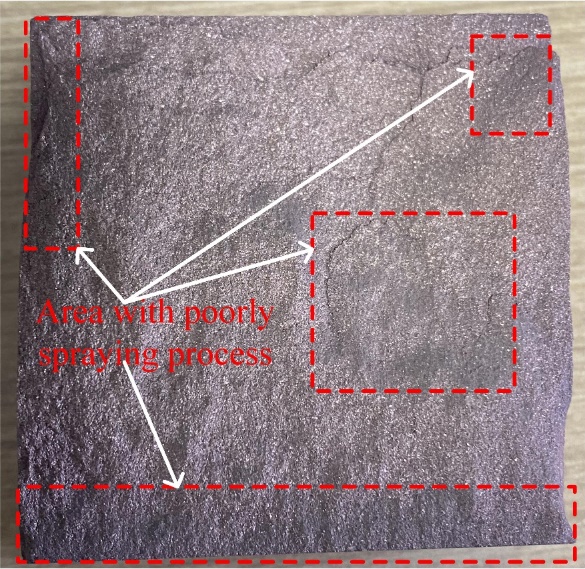
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| --- | --- |
|  |  |
| **(a)** | **(b)** |

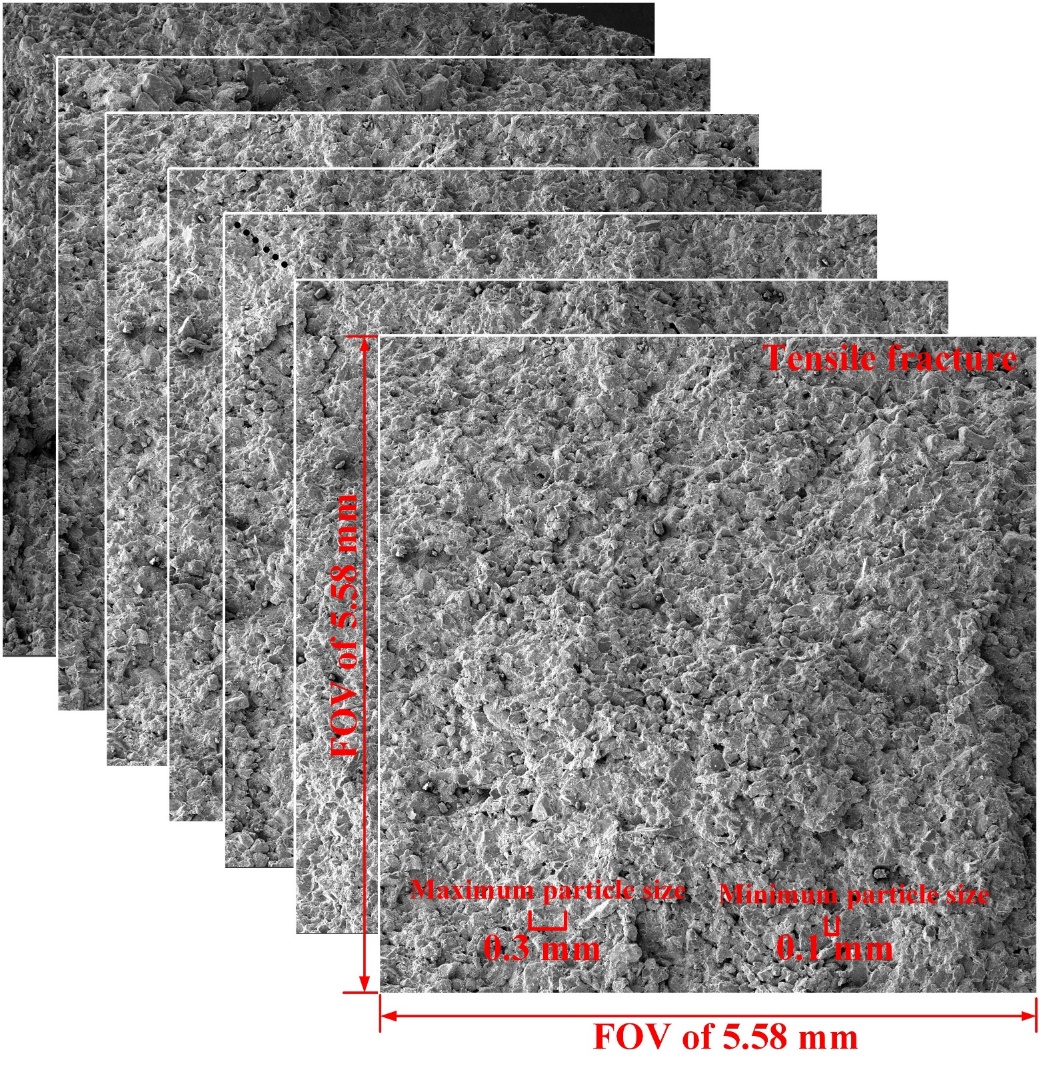
**Fig. S1. Photographic view of (a) Direct tensile tests; (b) Preset angle shear tests.**

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|  |
| **(a)** |
|  |
| **(b)** |

**Fig. S2. (a) Tensile fracture surfaces; (b) shear fracture surfaces.**



**Fig. S3. Shear fracture surface with spraying gold powder**



**Fig. S4. Collected scanning electron microscopy images at a magnification of 50.**

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| --- | --- |
|  |  |
| **(a)** | **(b)** |

**Fig. S5. (a) Uniaxial compression test and (b) Brazilian splitting test.**