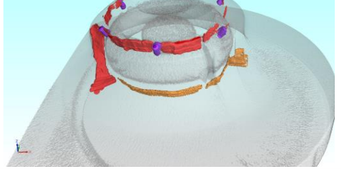
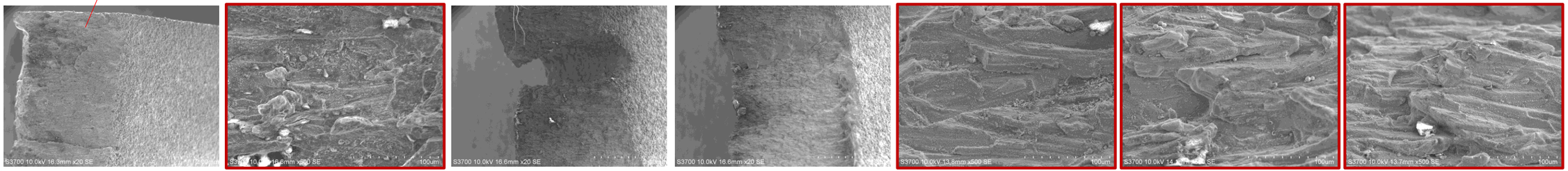
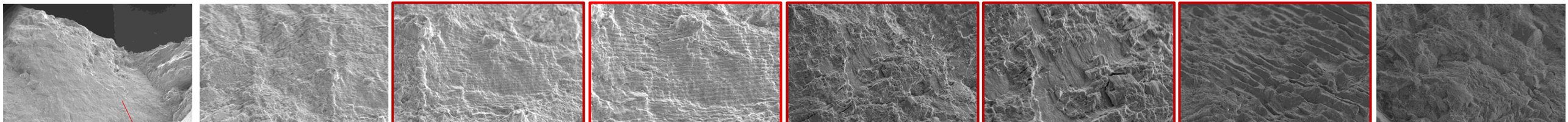
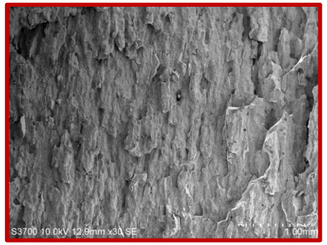
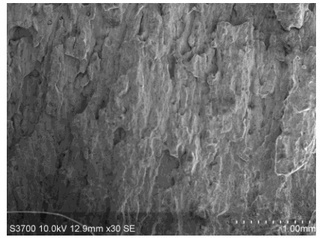
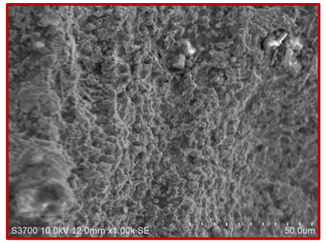
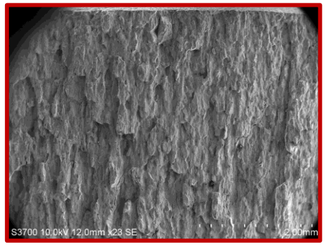
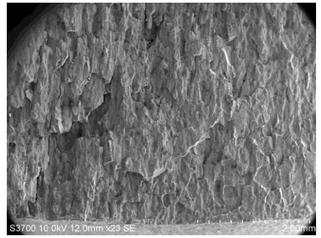
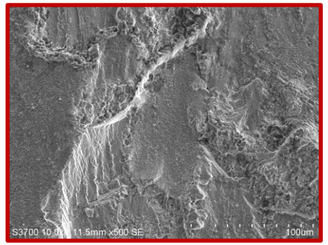
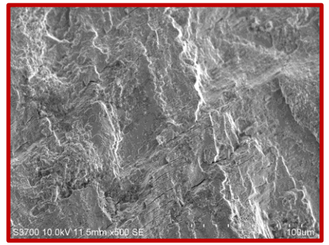
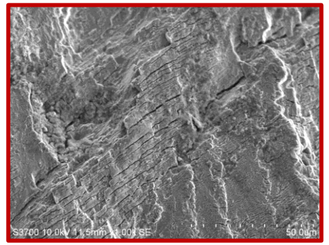
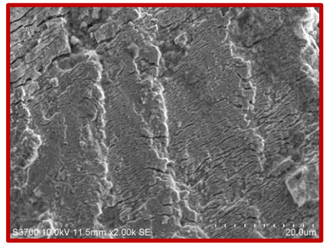
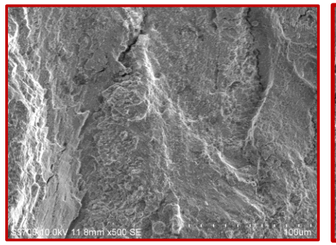
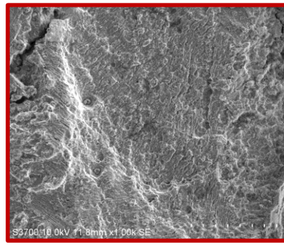
- Turbine Disk #1







- Turbine Disk #2

- در تصاویر بایستی دنبال نواحی شروع خرابی و مکانیزم های غالب شکست خستگی (با ذکر دقیق شواهدش) و همچنین دلایل شروع اون خرابی ها را دقیقا مطابق با شواهد (مثلا ناخالصی، void و ...)، یعنی نواقص موجود در ساختار تفسیر کند و نشان داد.
- لازم به ذکر ماده Ni-based superalloy می باشد که به روش Additive manufacturing تولید شده و تحت بارچرخشی (خستگی) قرار گرفته

- نواحی مختلف خستگی (ناحیه اول و دوم و سوم با توضیح شواهدش)
- cleavage
- Grains
- Microcrack
- Grain slip
- Surface-initiated damage
- Geometric irregularities
- Fine crack propagation marks
- Microstructural porosity
- Micro-porosity

- Rough, porous features
- Different patterns
- Crack nucleation
- Striation patterns
- Pores
- Cavities
- Secondary cracks
- Dimple mechanisms
- Un-melted powder particles

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