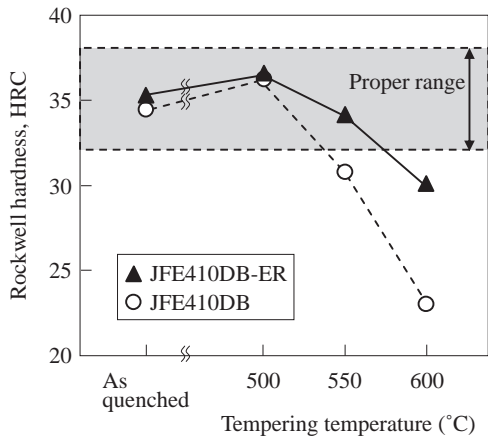
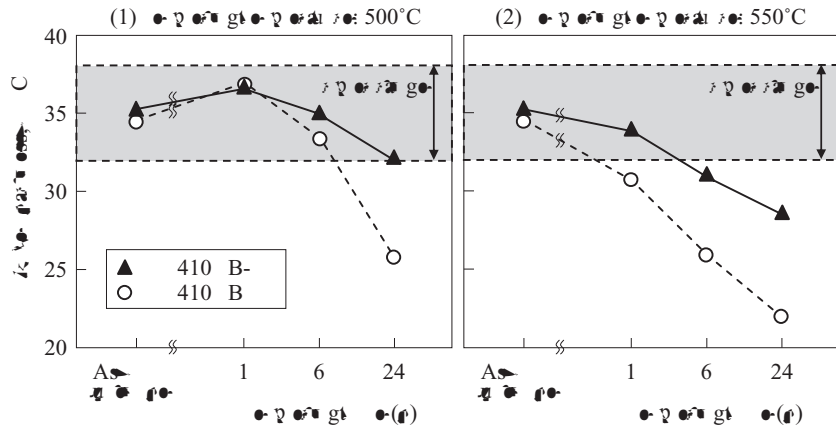


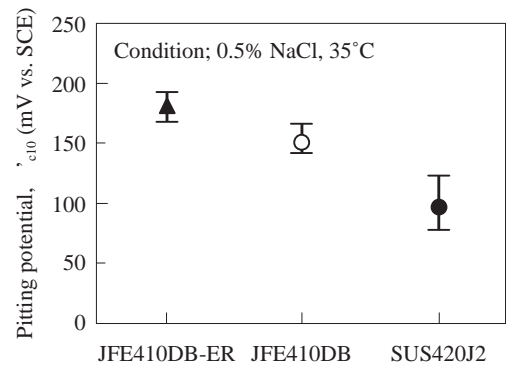
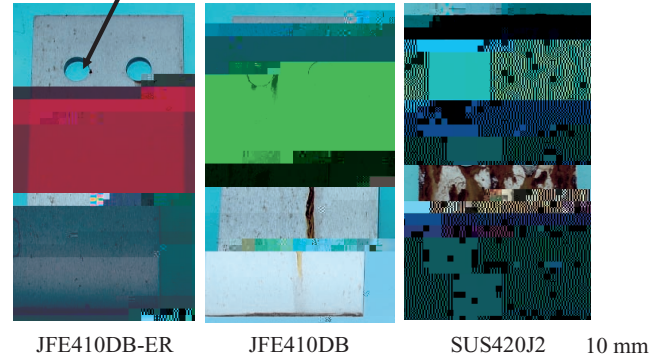
Abstract:

L[†] ca b a e c a e ee yJFE410DB-ER
e ea e a ce a d c e a ce
a c e a ee c c e b a e d a
bee de e ed. E ec Nb a d N e ea e -
a e e 12%C -1.5%M ee e e -
a ed e e e a c ea e a ce.
Add Nb d ced e Nb(C, N), a d e eb
e e ed e e e . Add N dec ea ed e

.....



Simulated a circular hole of rotor for brake disk



4. Summary

Figure 10 shows the relationship between the maximum residual stress and the maximum strain rate. The maximum residual stress increases with the maximum strain rate. The maximum residual stress is about 100 MPa at the maximum strain rate of 1000 s⁻¹. The maximum residual stress is about 200 MPa at the maximum strain rate of 10000 s⁻¹. The maximum residual stress is about 300 MPa at the maximum strain rate of 100000 s⁻¹. The maximum residual stress is about 400 MPa at the maximum strain rate of 1000000 s⁻¹. The maximum residual stress is about 500 MPa at the maximum strain rate of 10000000 s⁻¹. The maximum residual stress is about 600 MPa at the maximum strain rate of 100000000 s⁻¹. The maximum residual stress is about 700 MPa at the maximum strain rate of 1000000000 s⁻¹. The maximum residual stress is about 800 MPa at the maximum strain rate of 10000000000 s⁻¹. The maximum residual stress is about 900 MPa at the maximum strain rate of 100000000000 s⁻¹. The maximum residual stress is about 1000 MPa at the maximum strain rate of 1000000000000 s⁻¹.

5. Conclusion

The maximum residual stress increases with the maximum strain rate. The maximum residual stress is about 100 MPa at the maximum strain rate of 1000 s⁻¹. The maximum residual stress is about 200 MPa at the maximum strain rate of 10000 s⁻¹. The maximum residual stress is about 300 MPa at the maximum strain rate of 100000 s⁻¹. The maximum residual stress is about 400 MPa at the maximum strain rate of 1000000 s⁻¹. The maximum residual stress is about 500 MPa at the maximum strain rate of 10000000 s⁻¹. The maximum residual stress is about 600 MPa at the maximum strain rate of 100000000 s⁻¹. The maximum residual stress is about 700 MPa at the maximum strain rate of 1000000000 s⁻¹. The maximum residual stress is about 800 MPa at the maximum strain rate of 10000000000 s⁻¹. The maximum residual stress is about 900 MPa at the maximum strain rate of 100000000000 s⁻¹. The maximum residual stress is about 1000 MPa at the maximum strain rate of 1000000000000 s⁻¹.

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References

1. JFE Engineering Center, Ltd. (2008) JFE Technical Report No. 12 (Oct. 2008)