

Figure Captions

Fig. 1. Weibull plot of the normalized variable Z for corroded steel wire.

Fig. 2. Probabilistic C-S-N surfaces.

Fig. 3. Fatigue life versus the degree of corrosion for corroded steel wires in different groups.

Fig. 4. Fatigue life versus the degree of corrosion for steel wire.

Fig. 5. S-N curves with different degrees of corrosion for steel wire.

Fig. 6. The allowable stress range for steel wires with different degrees of corrosion.

Fig. 7. The damage ratio for corrosion for high-strength steel wires.

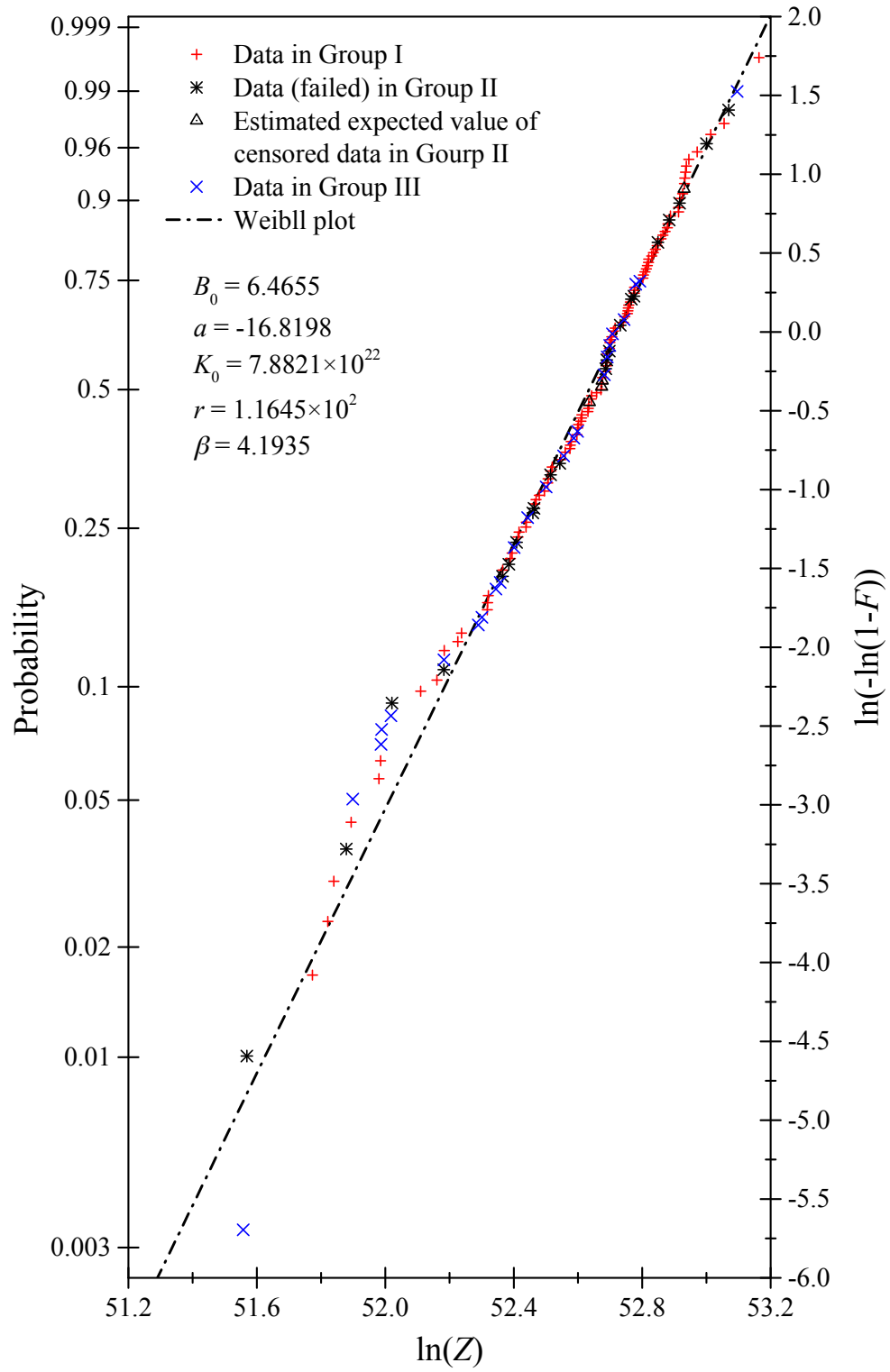


Fig. 1. Weibull plot of the normalized variable Z for corroded steel wire.

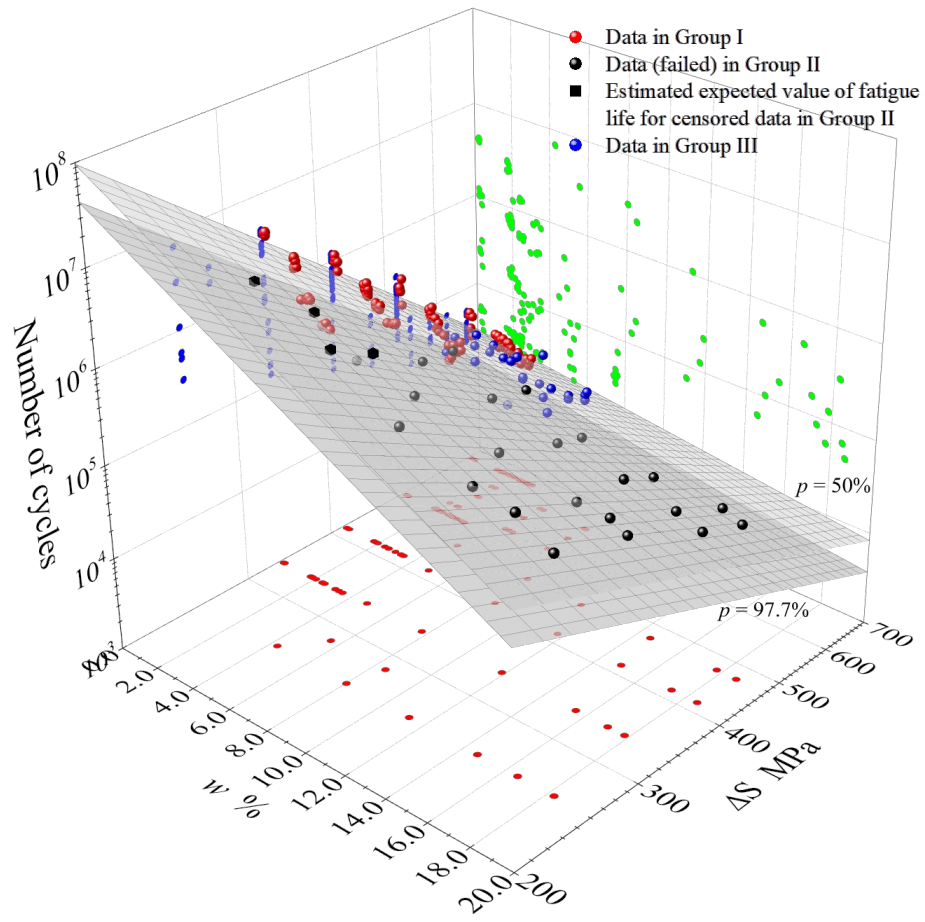
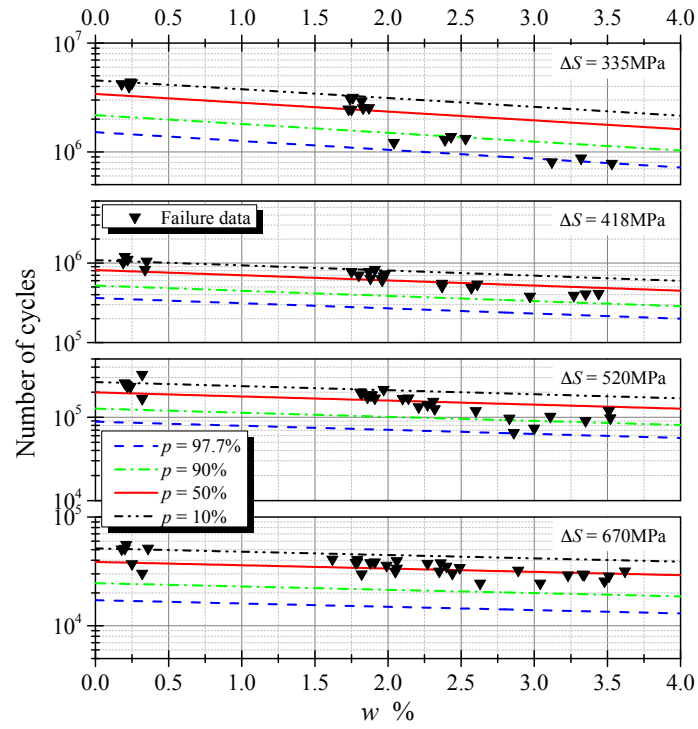
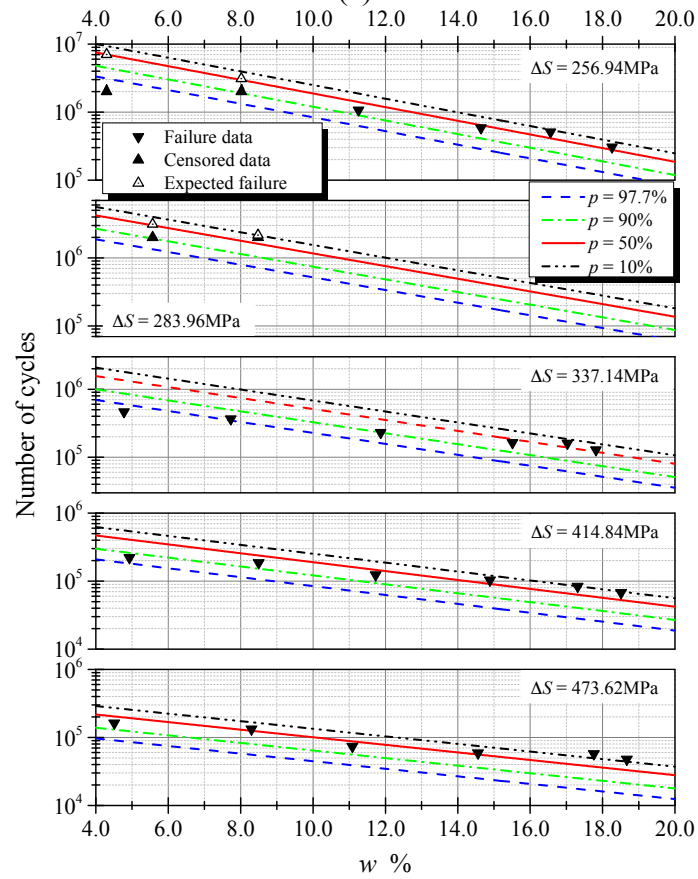


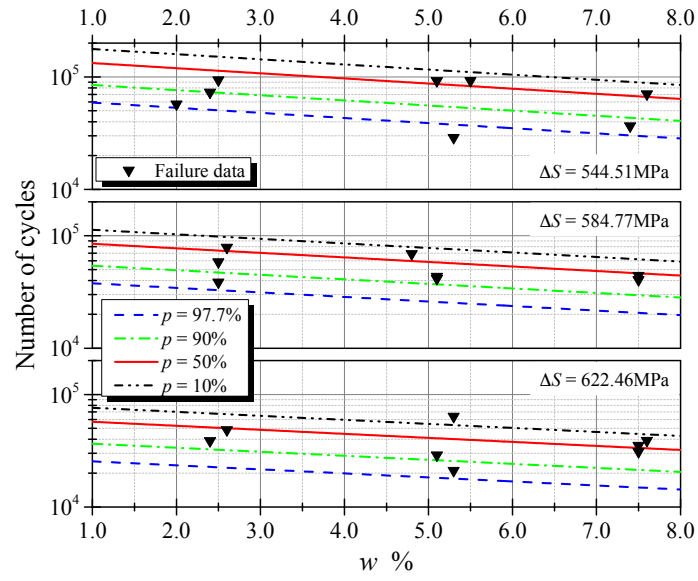
Fig. 2. Probabilistic C-S-N surfaces.



(a)

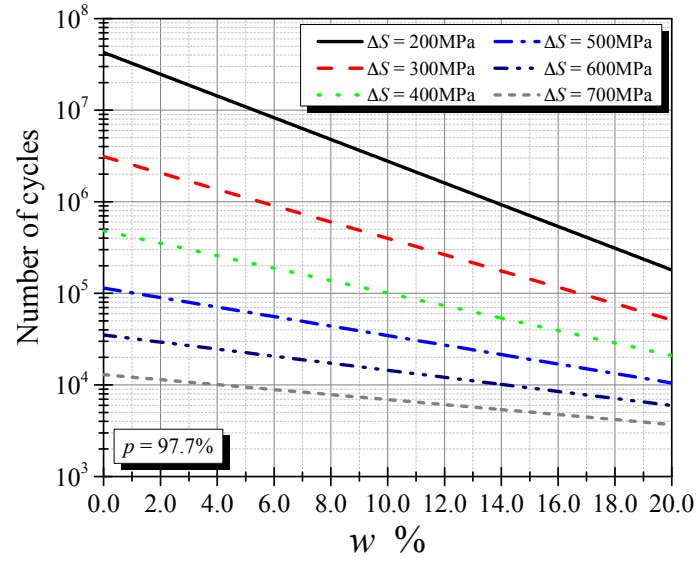


(b)

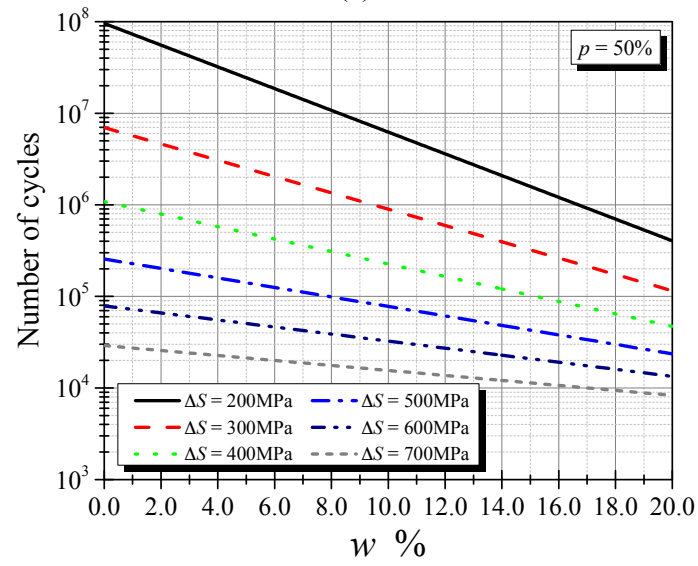


(c)

Fig. 3. Fatigue life versus the degree of corrosion for corroded steel wires in different groups. (a) Group I. (b) Group II. (c) Group III.

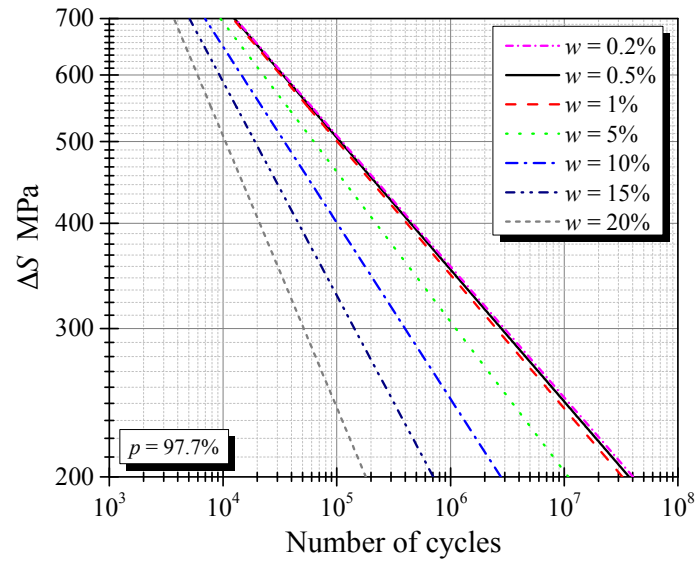


(a)

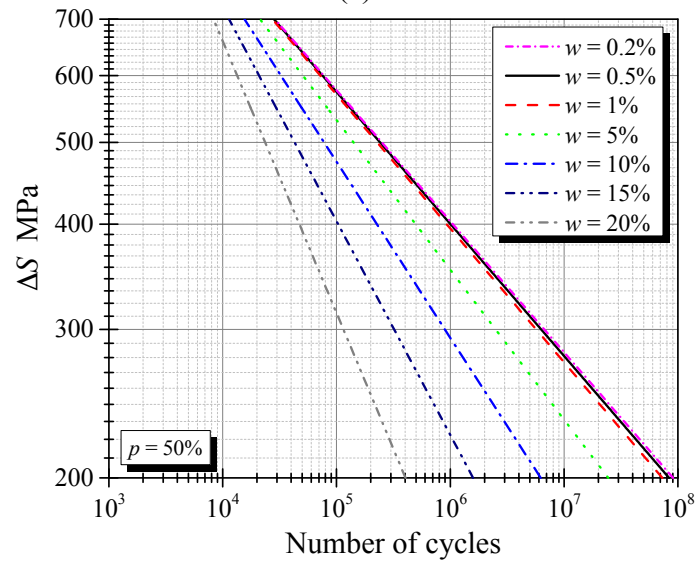


(b)

Fig. 4. Fatigue life versus the degree of corrosion for steel wire. (a) Survival probability of 97.7%. (b) Survival probability of 50%.

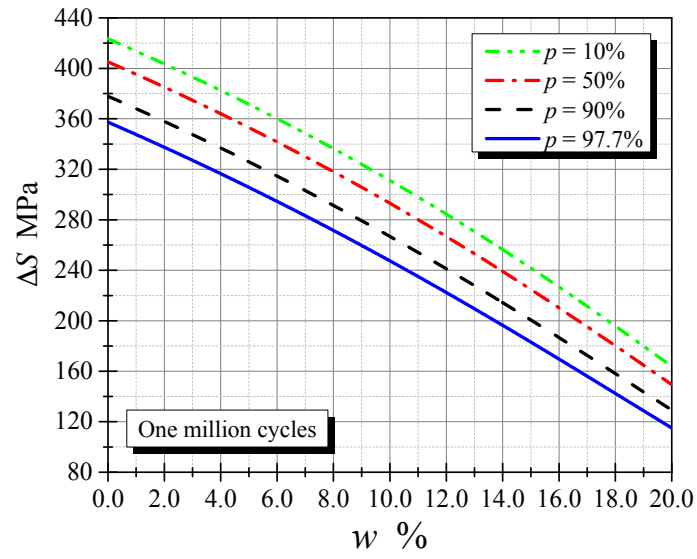


(a)

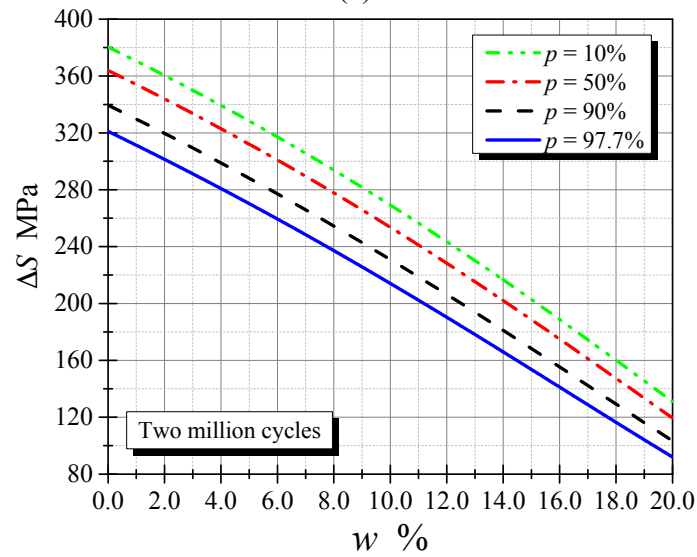


(b)

Fig. 5. S-N curves with different degrees of corrosion for steel wire. (a) Survival probability of 97.7%. (b) Survival probability of 50%.



(a)



(b)

Fig. 6. The allowable stress range for steel wires with different degrees of corrosion. (a) One million cycles. (b) Two million cycles.

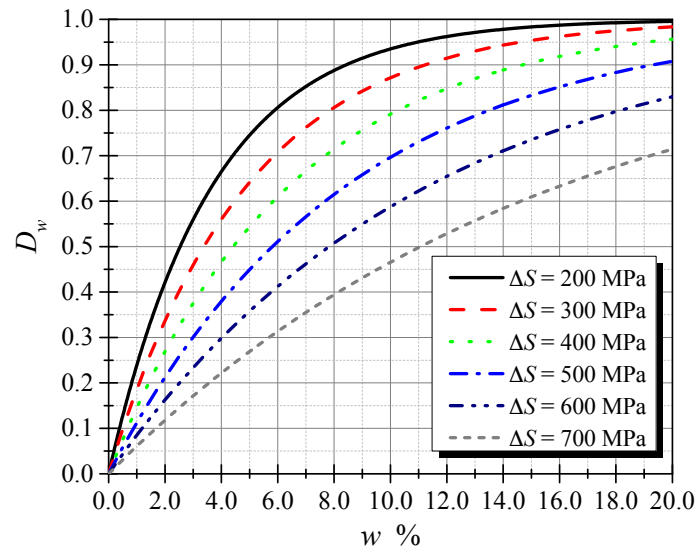


Fig. 7. The damage ratio for corrosion for high-strength steel wires.