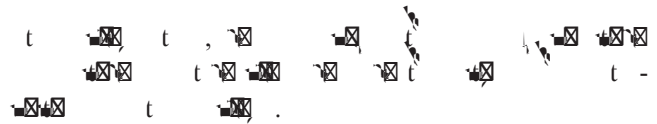
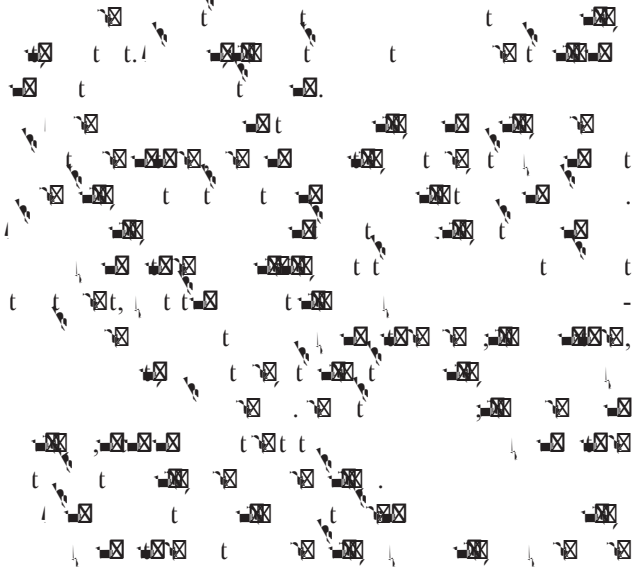


# Development of High Strength Spring Steel with Excellent Fatigue Property by Suppressing Decarburization

1.

springs applied in railway rolling stock industrial machinery, construction machinery, etc. The steel bars that make up coil springs are subjected to torsional stress and bending-ubending stress accompanying repeated compression and tension of the springs. Because these forms of stress both reach their maximum values at the spring surface, the surface condition of the steel material has a large influence on the fatigue strength characteristics of springs. Figure 1



## 2. Suppression of Decarburization by Trace Element Addition

Table 1

Material	Decarburization (mm)	Surface Hardness (HV)	Fatigue Strength (MPa)
900C	15	~300	~1000
60C	~5	~350	~1200



