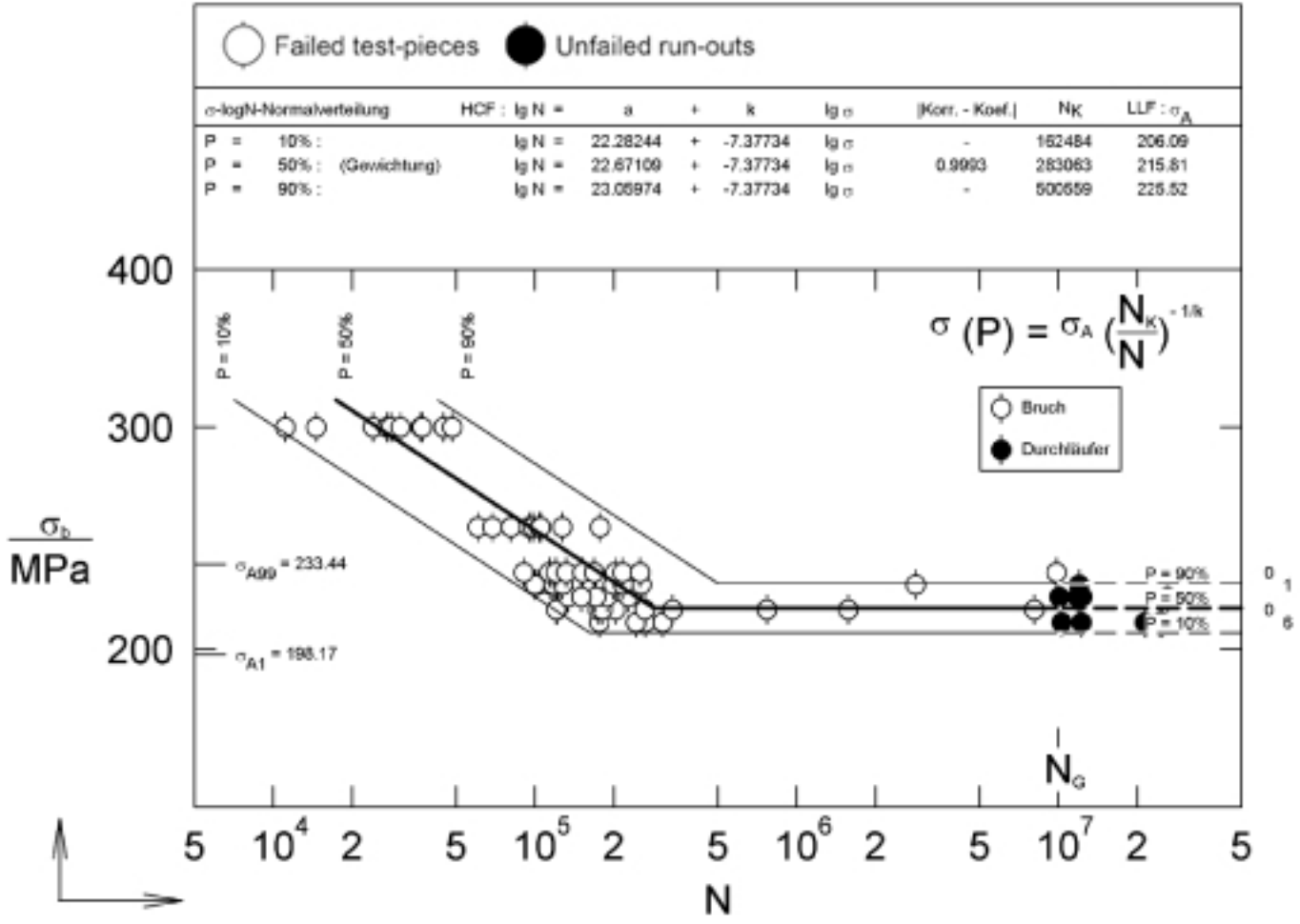

Material:	Fe-1.5 % Cu-0.0 % C; iron: water atomized sintering: 1120 °C, 20 min, 95 % N_2 + 5 % H_2 heat treatment: case hardened (austenitized 920°C/30min with 1.1 % carbon potential + 870°C/30min with 0.8 % carbon potential and 4 % NH_3; oil quenched and tempered 200°C/30min) density: 6.90 g/cm³ mech. properties: H = 349 HBW 2.5/187.5, $R_{p0.2}$ = - , R_m = -
Specimen:	smooth, K_t = 1.0; ISO 3928; surface as sintered
Loading mode:	Plane bending; R = 0
Limiting no. of cycles:	10^7
Endurance limit:	215.8 MPa
Reference:	A. Zafari, P. Beiss; Effect of Different Heat Treatments on the Fatigue Strength of Fe-Cu-C; Proc. EURO PM2007, Vol. 1, p. 175-180; EPMA, Shrewsbury, 2007

Stress amplitude:	210	215	220	225	230	250	300	MPa
Cycles to failure:	25065.1	121.3	12330.1	254.4	9834.5	98.2	30.6	· 1000
	12272.3	334.6	11884.1	114.7	251.9	176.7	27.2	
	263.9	202.8	11806.2	102.2	216.5	95.0	37.0	
	24254.1	261.8	133.6	99.6	131.3	127.2	44.6	
	243.3	174.6	188.3	117.7	120.1	60.4	28.0	
	21546.4	120.3	227.6	2850.9	167.9	104.6	48.3	
	21344.7	1571.9	26068.8	199.4	202.2	104.2	11.1	
	176.3	180.6	170.9	127.8	113.4	103.7	24.0	
	10265.1	769.7	10078.8	11964.1	152.1	80.9	14.6	
	307.4	8085.6	150.6	217.7	90.5	68.8	36.6	