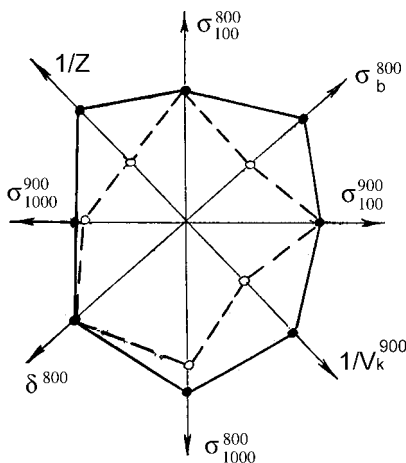


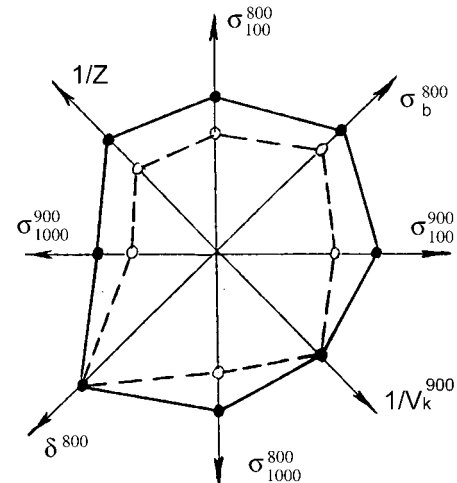


New alloys for blades of gas turbine engines

New generation heat resisting corrosion-resistant nickel of alloys with precision main and additional of alloying complex, which together with application the duplex - process remelting ensures significant increase of operational performances.



a



б

a) ● - alloys for working blades; ○ - GTD III;

б) ● - alloys for nozzle blades; ○ - GTD 222;

Z - price of alloys, USD;

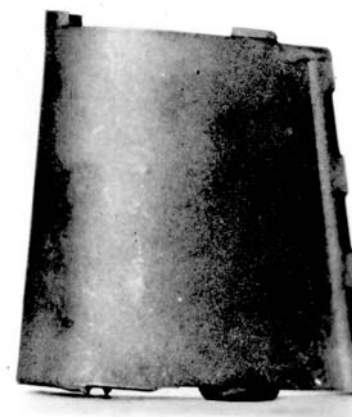
V_k^{900} - rate of corrosion under $T=900^{\circ}\text{C}$;

$y_{1000}^{800}, y_{100}^{800}, y_{1000}^{900}, y_{100}^{900}$ - long-term limit on the basic 1000 and 100 hours in accordance with 800 and 900°C;

$\sigma_b^{800}, \delta^{800}$ - temporary resistance and percent elongation under 800°C



a



б

Cast cooled blades of I stage of turbine: a – working; b - nozzle