South Dakota School of Mines and Technology

Department of Materials and Metallurgical Engineering

Met 624 Homework #9 Apr 29, 2014

A Cr fan blade at 1000 K is located 50 to 56 cm from the axis of rotation is rotating at 50,000 rpm. If the fan blade contains an average of 0.04 wt % C, what is the expected maximum percent C in the blade? The carbon may be assumed to be interstitial.