

Exam Winter Semester 2022

Student Group

First Name	Surname	Matrikel Nr.

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resistivity power exam_ee1_ws2022 Resistance of a Wire by Resistivity (written test, approx. 6 % of a 60-minute written test, WS2022) A heating element made of a Nichrome wire with a round cross-section is used in an electric oven. Nichrome is a common Nickel Chromium alloy for heating elements. $1.10 \cdot 10^{-6} \text{ }\Omega\text{m}$ 3.57 mm $R = \rho \cdot \frac{l}{A}$ $A = r^2 \cdot \pi = \frac{1}{4} d^2 \cdot \pi$ $R = \rho \cdot \frac{4 \dots$

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Last update: **2023/02/11 22:30**

