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Radionuclide Technique in Mechanical Engineering, a Powerful Measuring Method for Tribological Tasks. Installations at and Services of ZAG Zyklotron AG.

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The Radionuclide Technique in Mechanical Engineering RTM is a powerful and sensitive method to measure online the wear rates at running engines or tribometers in the range of nm/h.

The three parts of this technique will be explained. 1. The process of radioactive labelling at a cyclotron, 2. The two possible measurement procedures and 3. The measurement equipment. The installations for machine part activations at the cyclotrons of ZAG Zyklotron AG are shown. Based on measurement examples the possible sensitivity of this method is demonstrated. Special developed activations and the status of implantations of radioactive ions are discussed.

Country/Organization invited to participate

Germany

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