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Comparative study on wear behavior of plasma sprayed Al_2O_3 coatings sliding against
different counterparts

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Abstract

Although the friction and wear behavior of plasma sprayed aluminum matrix ceramic coatings have been extensively discussed in the last decades, only few researches have been carried out the wear mechanisms sliding against different pairs. The tribological behaviors of plasma sprayed Al_2O_3 coating sliding against ZrO_2 , Si_3N_4 , Al_2O_3 and stainless steel balls in air were comparatively investigated in this study. It was showed that Al_2O_3 coating sliding against different counterparts exhibited diverse tribological behaviors, which could be mainly ascribed to the different mechanical properties of

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