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AFM and SEM studies Zr thin films on SiC

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Abstract content
 (Max 300 words)

The Zr-SiC interface is of vital interest in nuclear fuel cladding, metal matrix systems and in the electronics field for applications in schottky diodes. The metal/SiC interface at high temperatures and different annealing durations were investigated under high vacuum conditions. The surface and interface evolution under annealing conditions of 600 to 1000C and annealing duration 30 minutes to 4 hours were investigated by secondary electron microscopy (SEM) and Atomic force microscopy (AFM). SEM surface images revealed development of mould-like structures from aggregation of surface materials. AFM analysis revealed that the surface roughness parameters increased with annealing duration at each annealing temperature.

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yes

Level for award
 (Hons, MSc,
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phd

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yes

Primary author: Mr NJOROGÉ, Eric (university of pretoria)

Co-authors: Prof. THERON, Chris (university of pretoria); Prof. MALHERBE, Johan (university of pretoria)

Presenter: Mr NJOROGÉ, Eric (university of pretoria)

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