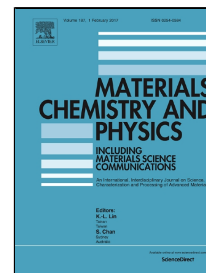


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Epitaxial Growth of Tantalum Carbides by Low Carbon Flow Carburizing

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Highlights:

With a special carburizing treatment, several microstructures appear on the same tantalum sample, with the variation of carbon flux.

Epitaxial relationships between Ta, Ta₂C and TaC are highlighted in tantalum carbide layers.

Under specific carbon flux, TaC carbide layer grows in relation with the Ta substrate.

Columnar and equiaxed growths of carbide layers are separated by a carbon boundary flux

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