

1 **Considerable knock-on displacement of metal atoms under a low energy electron beam**

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14 **Video Legend**

15 **Considerable knock-on displacement of zirconium atoms under a low energy electron beam.**

16 Under focused and stationary electron beam at 30 kV in a field-emission scanning electron  
17 microscope (FE-SEM), nanoscale precipitates within the surface layer of Zircaloy-4 specimen  
18 gradually emerged and became clearly visible with increasing the irradiation time.