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**Bone-Like Apatite Coatings on 316L Stainless Steel Fiber Braids  
via a Simulated Body Fluid Inducing Process**

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316L stainless steel is one of the important materials both in orthopaedics and dentistry. However, the stainless steel does not possess bioactivities to bond with bone tissue. For improving this difficulty, a chemical method was used to induce a bioactive bone-like layer on the surface of 316L stainless steel braids. With the ion-exchanging reaction, a group of  $\text{Na}_4\text{CrO}_4$  coating was formed on the surface of metal.  $\text{Na}_4\text{CrO}_4$  group can induce apatite nucleus appear on the surface. The results were observed and examined by SEM, EDS, XRD and FTIR.