## **Fe-Si-Al Coatings with Stable Wear-resistance Prepared by Laser Cladding Industrial Wastes**

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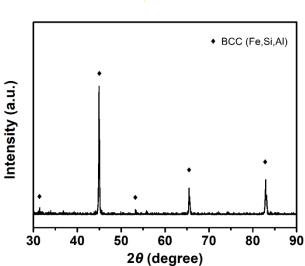
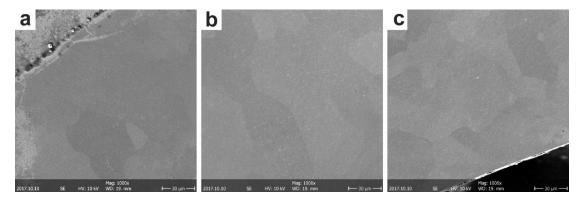
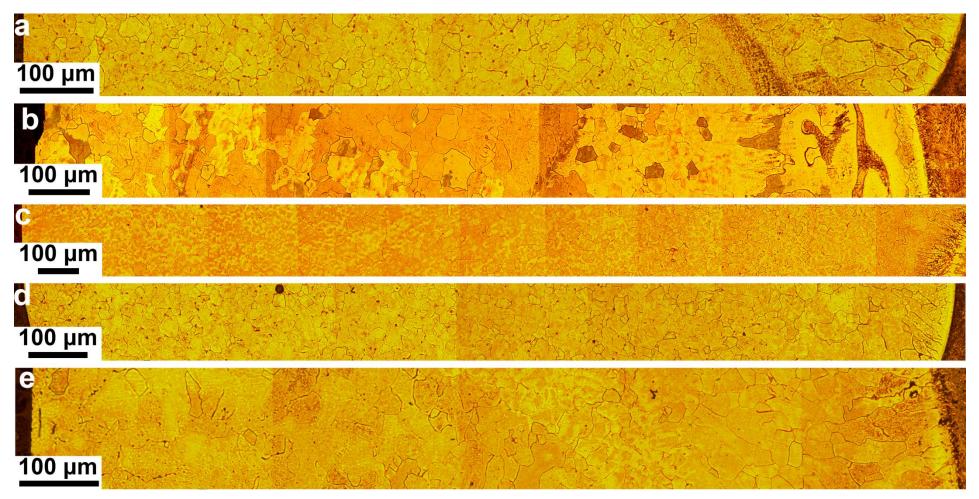


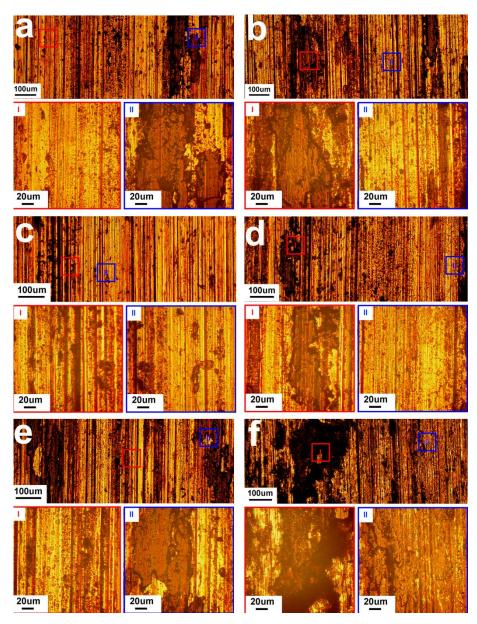
Figure S1. The XRD spectrum of the Fe-Si-Al powder.



**Figure S2**. The SEM images of the cross-sectional profile of the cladded layer of coating specimen 5. (a) The bottom area of the coating. (b) The middle area of the of the coating. (c) The top area of the coating.



**Figure S3**. The optical microscope images of the cross-sectional profiles of the cladded layers of coating (a) specimen 1, (b) specimen 2, (c) specimen 3, (d) specimen 4 and (e) specimen 5.



**Figure S4**. The optical microscope images of the wear scar of (a) the Fe-Si-Al coating specimen 1, (b) the Fe-Si-Al coating specimen 2, (c) the Fe-Si-Al coating specimen 3, (d) the Fe-Si-Al coating specimen 4, and (e) the Fe-Si-Al coating specimen 5, and (f) the 1045 carbon steel.