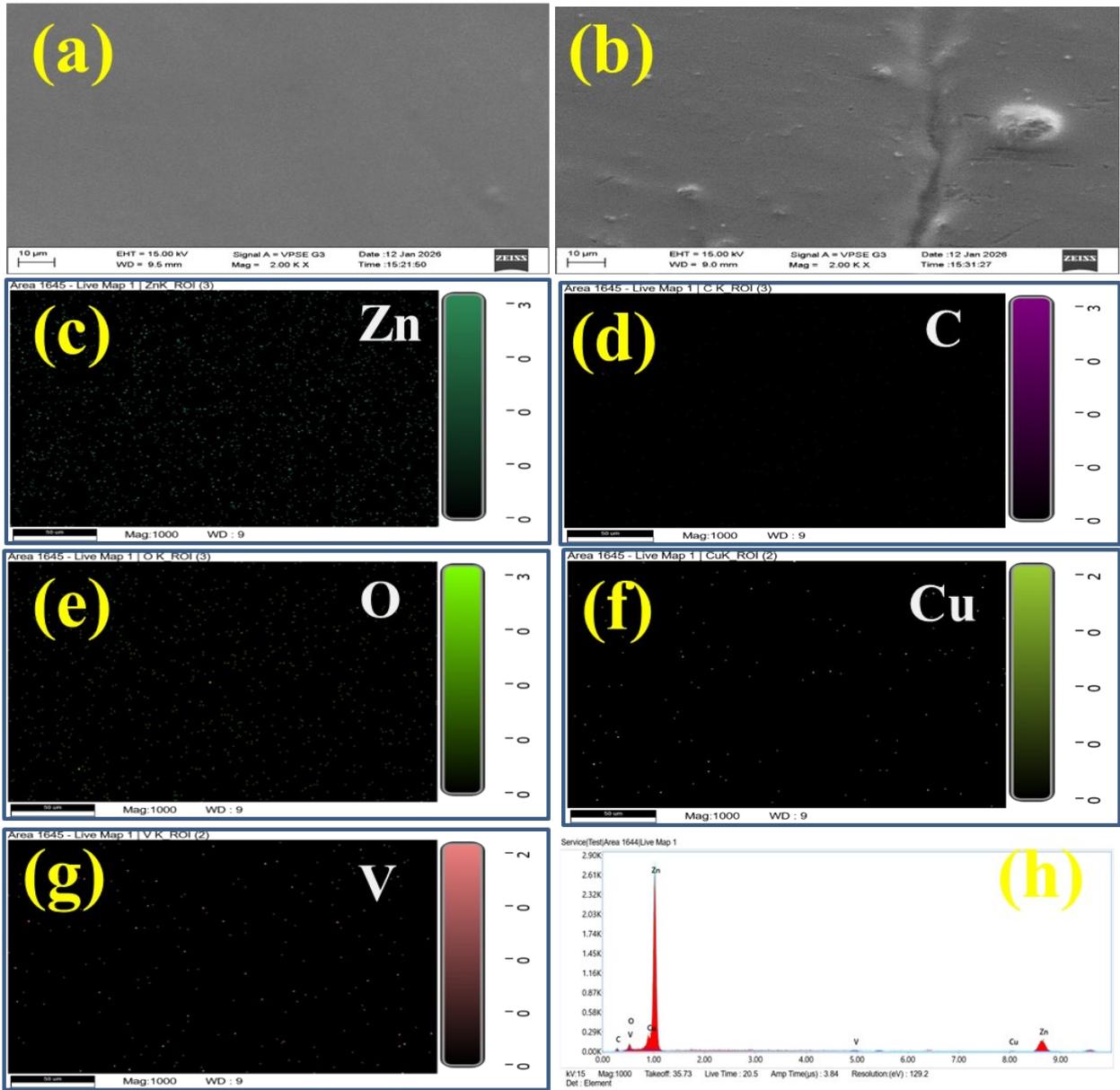


**Fig.S1. (a) and (b) FESEM micrographs of Zn+ VIC before and after corrosion, (c-f) are the elemental mapping images of Zn, C, Cl and O, (g) is EDX spectrum of Zn+ VIC coating after corrosion test in 3.5 wt.% NaCl medium.**



**Fig.S2. (a) and (b) FESEM micrographs of Zn+ VIC + Cu<sub>2</sub>V<sub>2</sub>O<sub>7</sub> composite before and after corrosion, (c-f) are the elemental mapping images of Zn, C, O, Cu and V (g) is EDX spectrum of Zn+ VIC + Cu<sub>2</sub>V<sub>2</sub>O<sub>7</sub> composite coatings after corrosion test in 3.5 wt.% NaCl medium.**

**Table S1:** Quantitative elemental analysis of Zn + VIC coating after corrosion test in 3.5 wt.% NaCl medium.

Elements of Zn+ VIC	Atomic number	Weight %
Zn	30	53.6
C	6	7.8
O	8	28.5
Cl	17	10.1

**Table S2:** Quantitative elemental analysis of Zn+ VIC+ Cu<sub>2</sub>V<sub>2</sub>O<sub>7</sub> composite coating after corrosion test in 3.5 wt.% NaCl medium.

Elements of Zn- CEVC	Atomic number	Weight %
Zn	30	70.21
C	6	7.73
O	8	13.22
Cu	29	2.04
V	23	6.81