

Abstract

The present disclosure provides a submarine cable heterogeneous conductor and a processing method therefor, and a submarine cable and a preparation method therefor. The submarine cable heterogeneous conductor includes a first conductor, a second conductor, a third conductor, and a fourth conductor connected in sequence, the second conductor including a second conductor core, the third conductor including a third conductor core, the second conductor and the third conductor being conductors of different materials, the first conductor and the second conductor being conductors of the same material, the third conductor and the fourth conductor being conductors of the same material, the first conductor being a conductor formed by stranding and pressing first conductor metal wires, and the fourth conductor being a conductor obtained by stranding and pressing second conductor metal wires. The second conductor and the third conductor of different materials are friction welded to form an alloy structure of the two materials at the joint, so that an electrochemical reaction between the second conductor and the third conductor can be suppressed, and the strength of the copper-aluminum welding joint can also be effectively controlled, thereby improving the welding quality of the submarine cable heterogeneous conductor as a whole.

Fig. 3