

A process for hydrogen and sulphur extraction from deep-sea layers comprises the immersion of production module from water craft into saturated by hydrogen sulphide sea layer, which consists of electrolyzer for decomposition of hydrogen sulphide to hydrogen and sulphur, dome shaped capacity over the electrolyzer and capacity under electrolyzer, joined by process communications with the water craft, electric power supply and electrolysis of hydrogen sulphide with hydrogen and sulphur discharge, hydrogen gathering in dome shaped capacity, sulphur concentration in capacity under electrolyzer. The gathered hydrogen by the pipe-line, joined to upper part of dome shaped capacity, is delivered to the deck of the water craft, where it is compressed and under the pressure gathered into capacities of storage and transportation. The accumulated sulphur in form of suspension is lifted to the deck of water craft by the joined to capacity under electrolyzer pipe-line by means of pump, where it is given to separator, partially dehydrated and placed into capacities of storage and transportation. But the separated and contaminated water by the remains of sulphur is returned by the pipe-line to the saturated by hydrogen sulphide sea layers.