

Electrode Product Application

Japan Carlit Co., Ltd

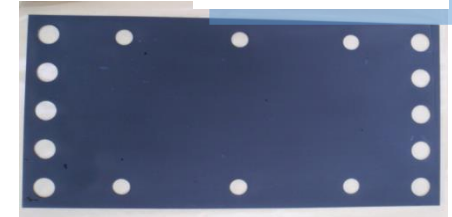
8 June 2015

Electrode Application

The electrode consists of a titanium substrate which is coated with platinum group metals oxides

We can design and fabricate to your required shape and size as shown on the right photo. We proposed coating specifications based on wide variety of areas and thickness (up to a few μm , + g/m^2)

A Plate



Shape and size

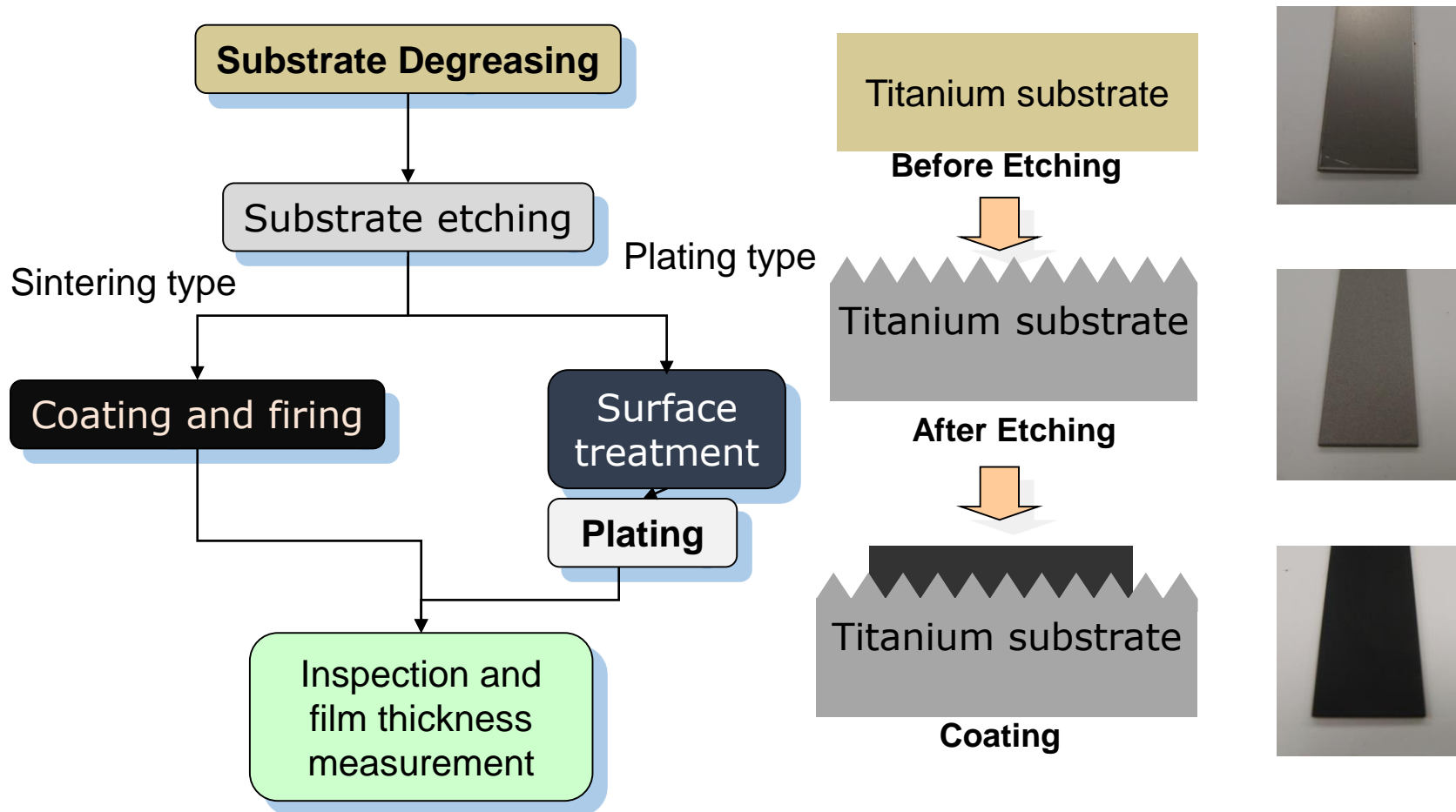


Other

(cylindrical, rod-like)



Manufacturing Process of Electrode



Series of electrode features

		Type	Coating	Features	General Application
①	BA・EA	Plating	Platinum	By special interface treatment Improving adhesion Overvoltage Large	High potential oxidation treatment
②	R RN	Sintering	platinum-iridium complex system	It can correspond to reverse current	Alkaline ionized water apparatus Acidic water
③	B・F		Iridium dioxide system	Low oxygen overvoltage	
④	C		Ruthenium complex system	Good chlorine generation efficiency	Brine (production of Sodium hypochlorite acid) Chlorate production
⑤	S		Platinum complex system	Good chlorine generation efficiency High low temperature of durability	Seawater electrolysis
⑥	LD	Electrodeposition	Lead dioxide	Overvoltage Large Special and catalytic ability to chrome plating	Chrome plating Ozone generation Waste water treatment

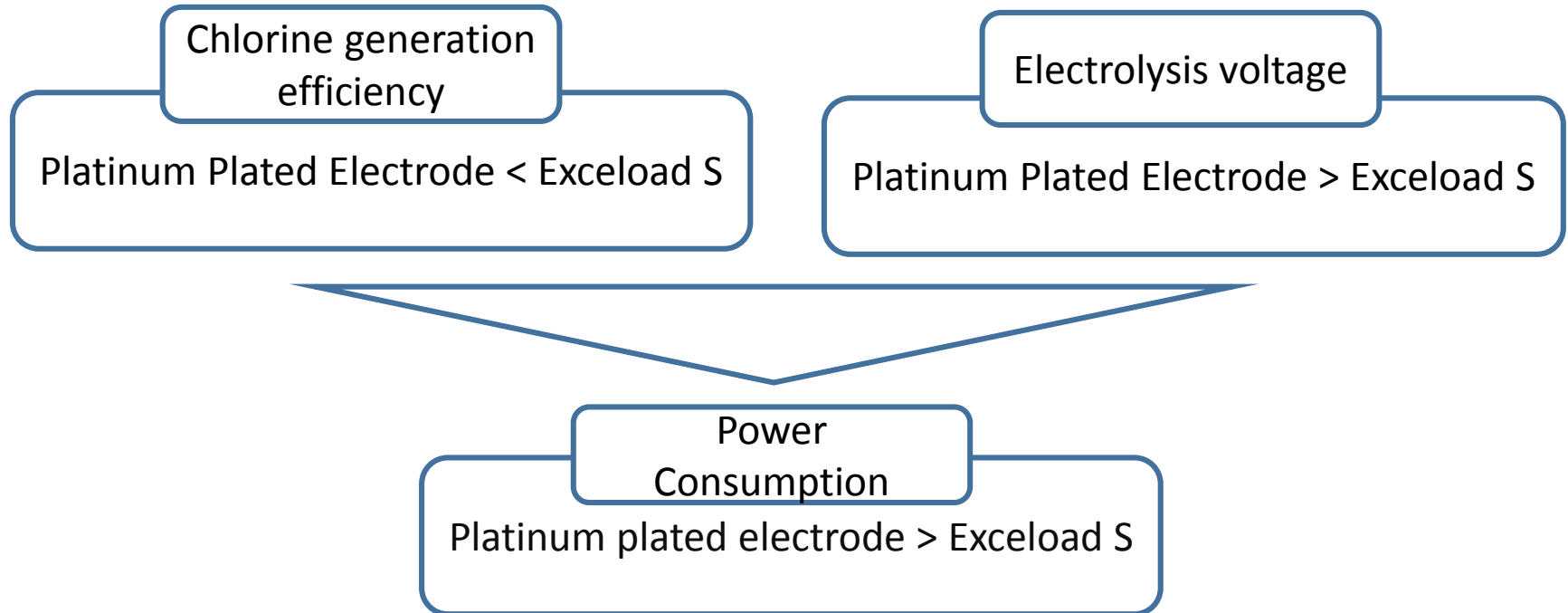
Features of Excelord S

- Dedicated to seawater electrolysis electrode
- High-performance
- We have more than 30 years of experience in Japan

Application

- Prevention of adhesion of marine biofouling to piping of coastal factories
- Anti-migration of aquatic organisms by ship ballast water

Comparison of the Excelord S and Platinum-plated electrode

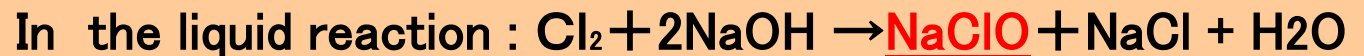
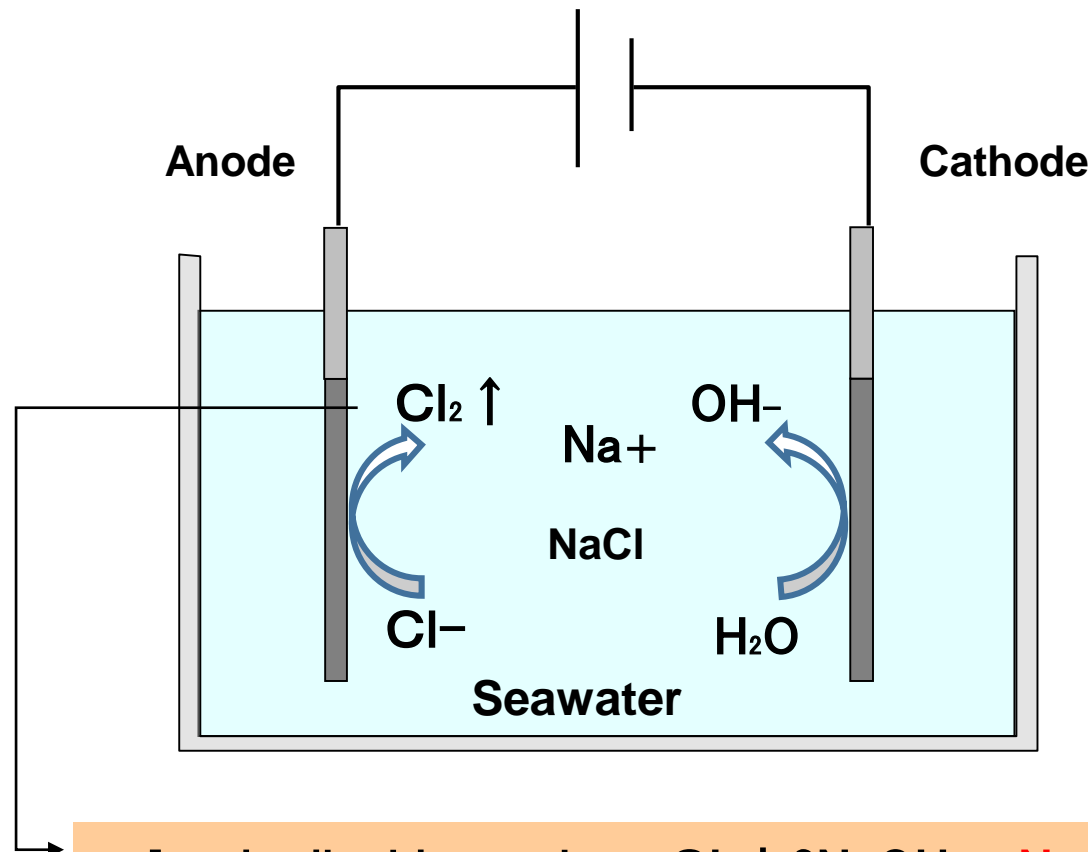


Significantly reduce running cost during operation

- Reduction of electrode usage
- Cost of reduction of rectifier
- Small space

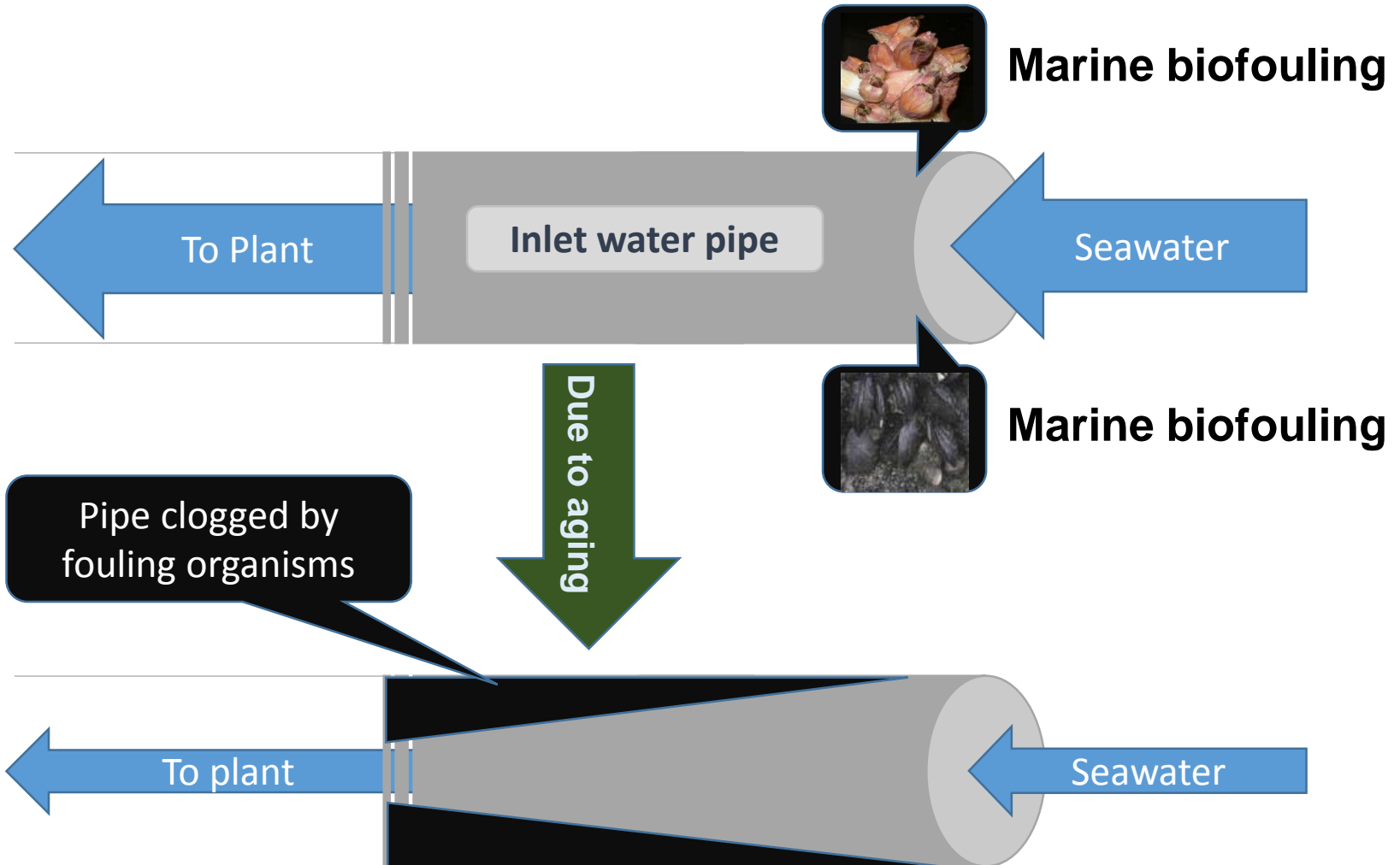
Generation mechanism of NaClO with seawater electrolysis

Chlorine is generated from the chloride ions in seawater and sodium hypochlorite is also generated by the reaction in the liquid.

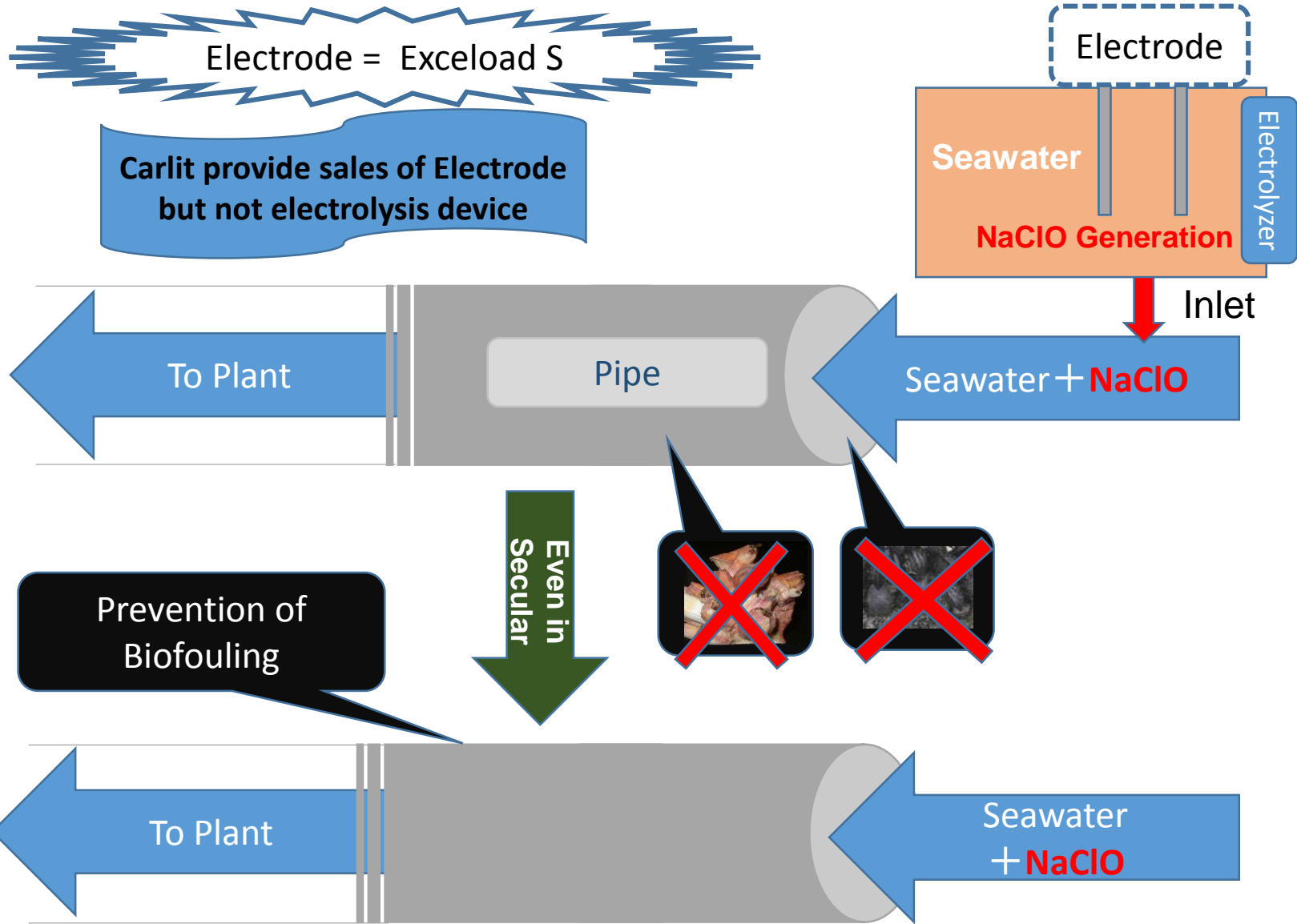


Detail Description

Prevention of adhesion of marine biofouling to the piping of coastal factories
 The pipe was clogged by marine biofouling

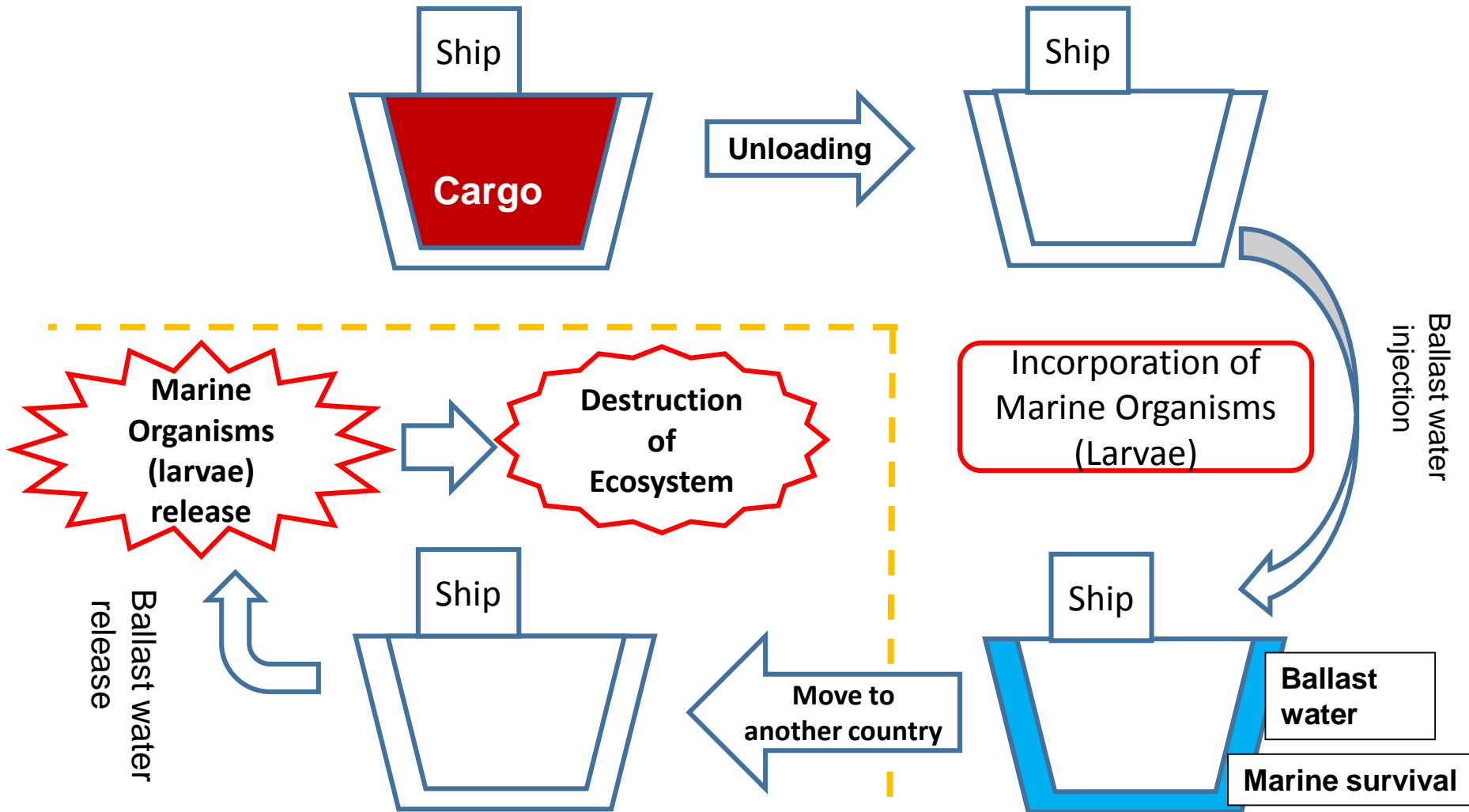


To prevent clogging of pipes by marine biofouling



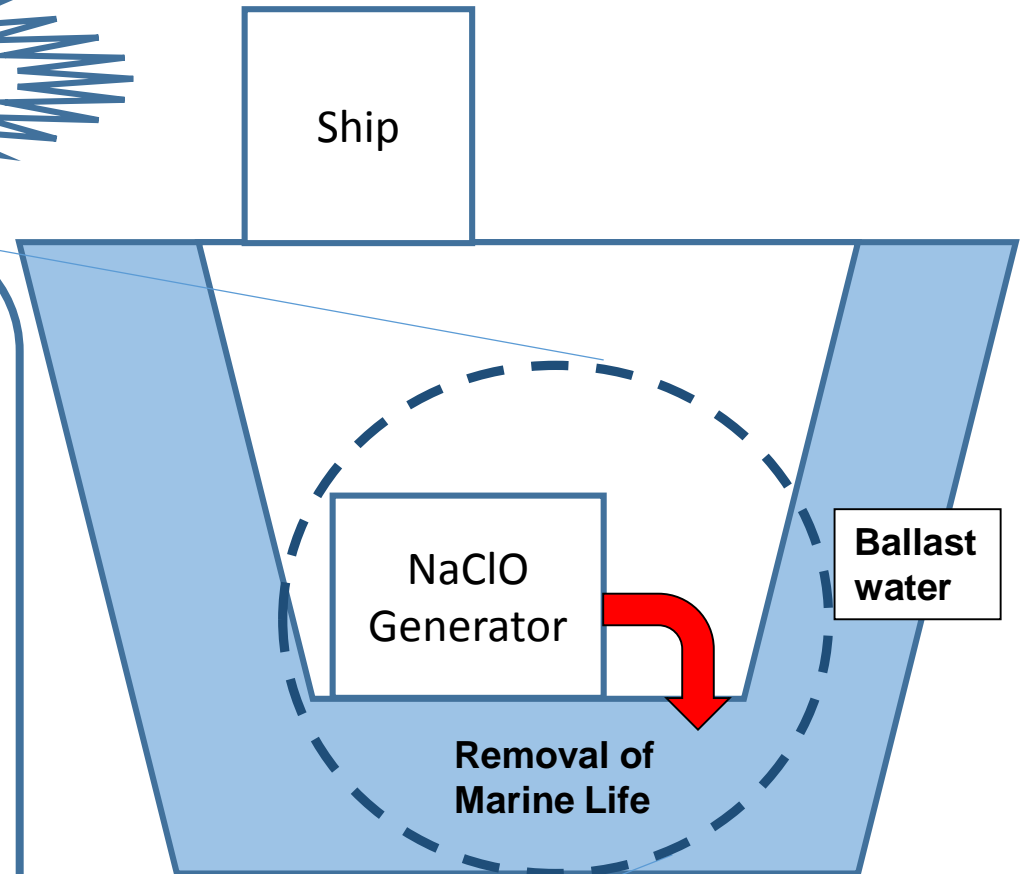
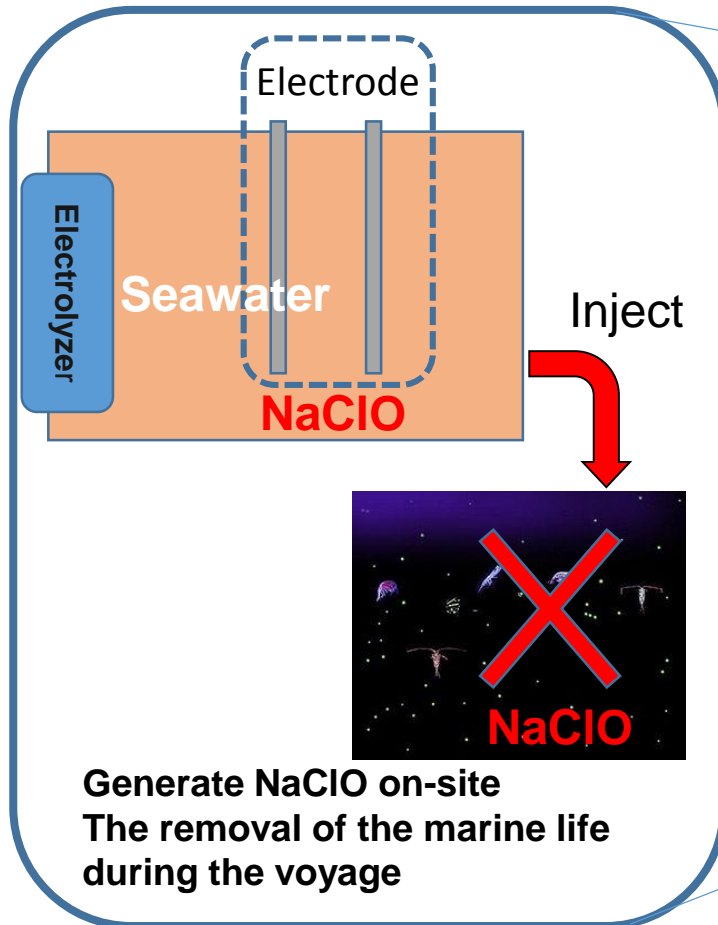
Anti-migration of aquatic organisms by ship ballast water

Movement mechanism of aquatic organisms by ballast water



Removal of Marine life in ballast water

Electrode = Exceload S



Carlit provide sales of electrode but not electrolysis device

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