



Status on ozone management and effects in land-based aquaculture



End of the 80'ies - Pioneer

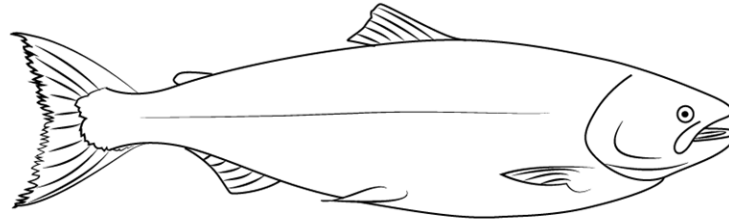
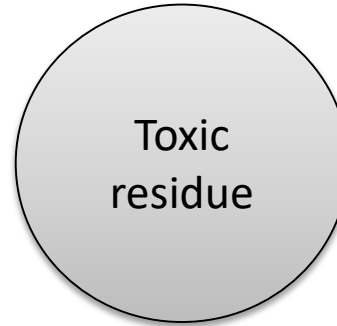
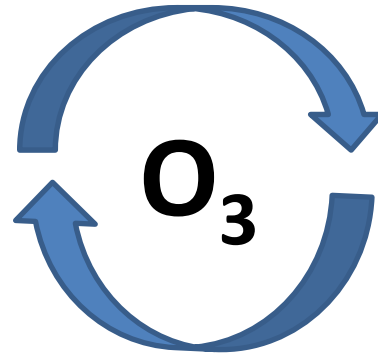
Eel farms



Impossible to control

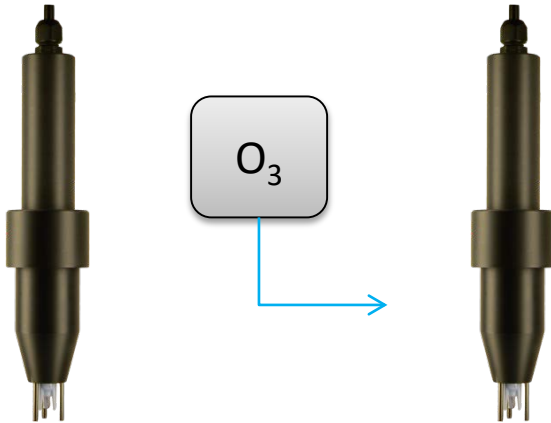


Danger !!!



Most popular solution

ORP/ Redox



100 mV
150 mV
400 mV



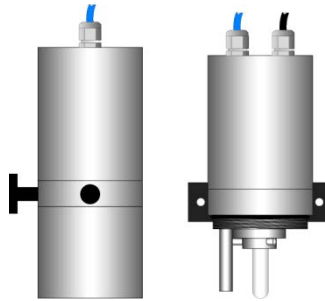
OxyGuard measurements

ORP/ Redox

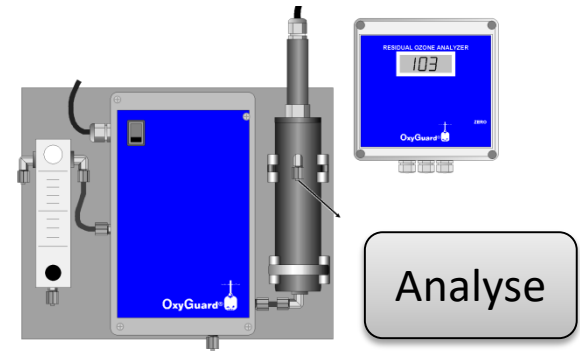
Platinum / gold /...



Rotox



Residual ozone



GUDP – project (2 years)

- Universities
- OxyGuard
- GTS institutes

Ozone sensor



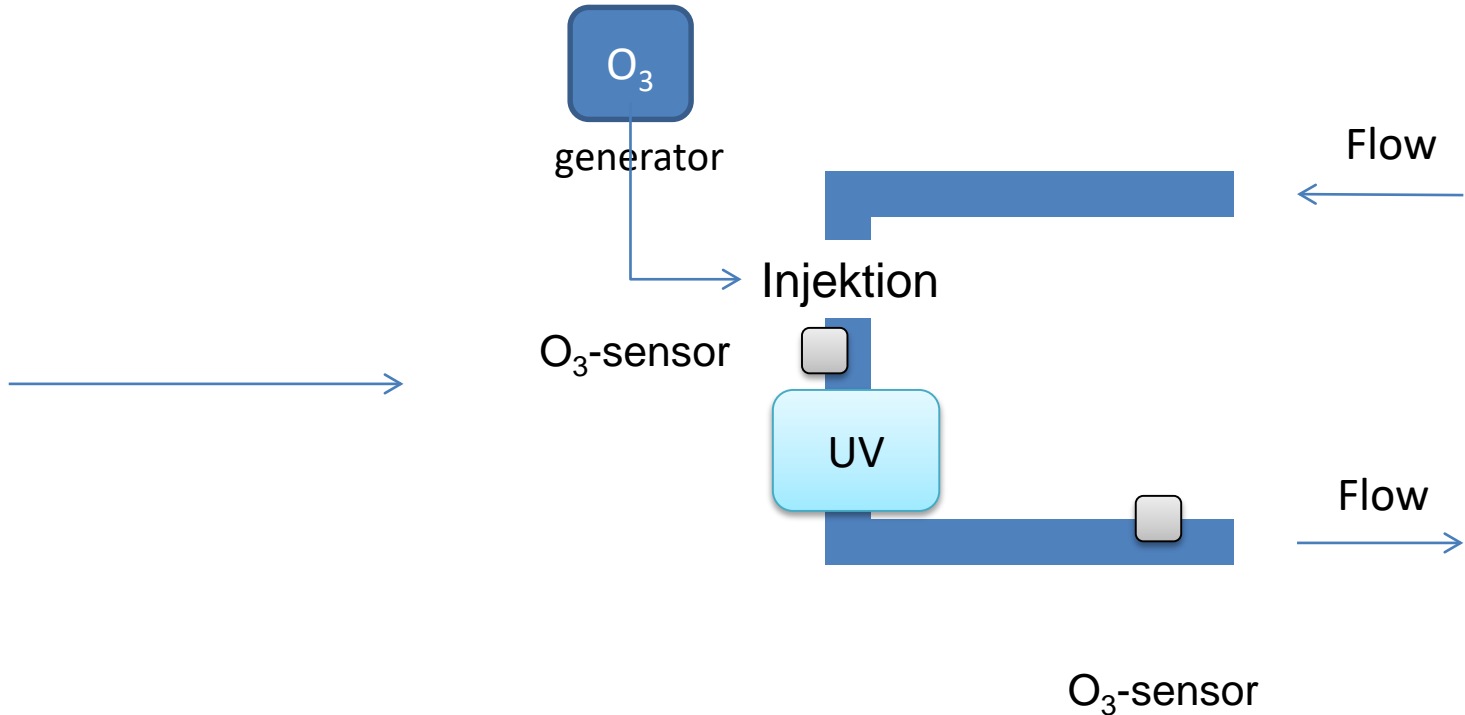
Winter, 2017

Area

0,02 mg/l – 10 mg/l

OxyGuard – Water Project

2014



Water

Ozone generator

Gaia ozone-generator

Working pressure 2,5 to 4 BAR

Produces 160 gram ozone from 1Nm³ oxygen = 11 %WT

Produces 1 gram ozone from 6,48 liter oxygen

Uses 7,3 watt to produce 1 gram ozone

Other ozone-generators

Working pressure 0,8 to 1,2 BAR .

Produces 50 gram ozone from 1Nm³ oxygen = 3,5 %WT

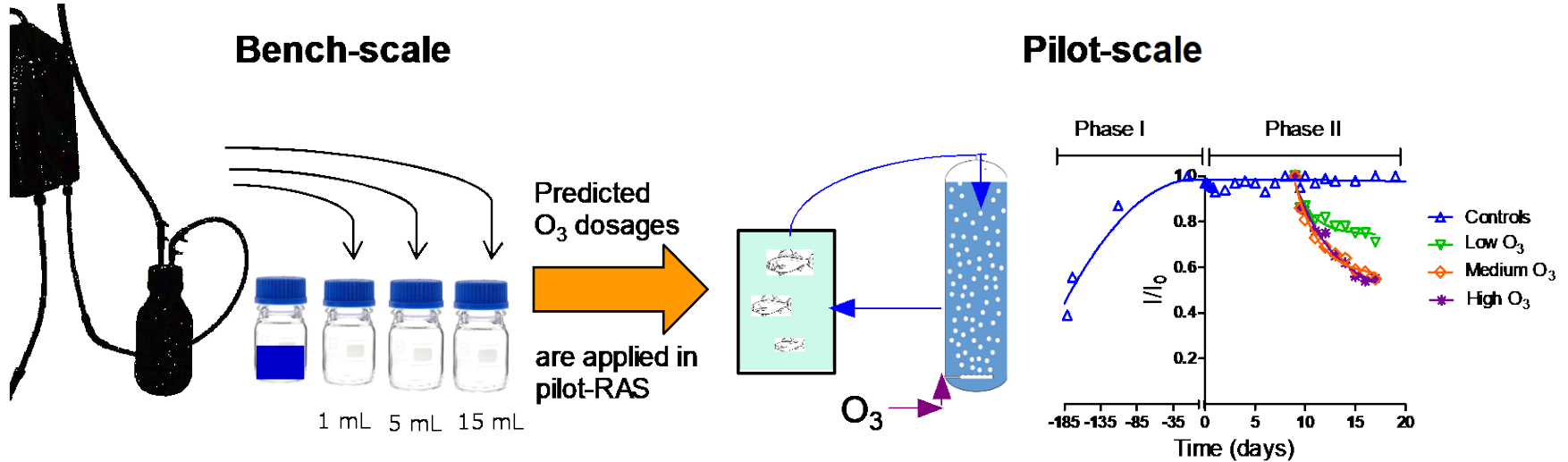
Produces 1 gram ozone from 20 liter oxygen

Uses 34 watt to produce 1 gram ozone

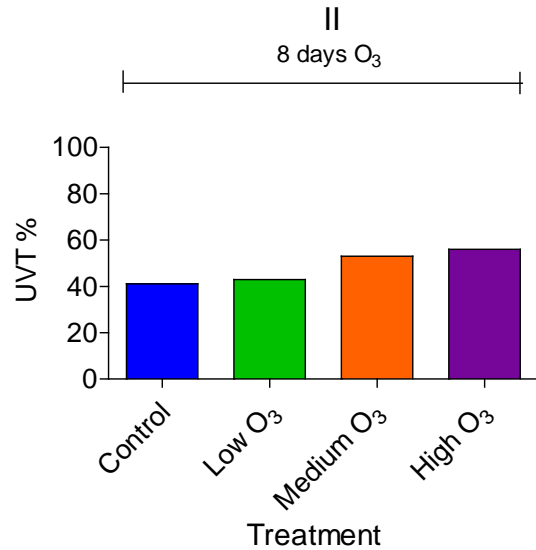


Gaia ozone cell

3 years Industrial PhD project



Proof



Water clarity

- Up to 15% UVT increase
- UVT% increase is proportional to treatment period and UV dosage



Day 0



Day 8

Low O₃

Medium O₃

High O₃

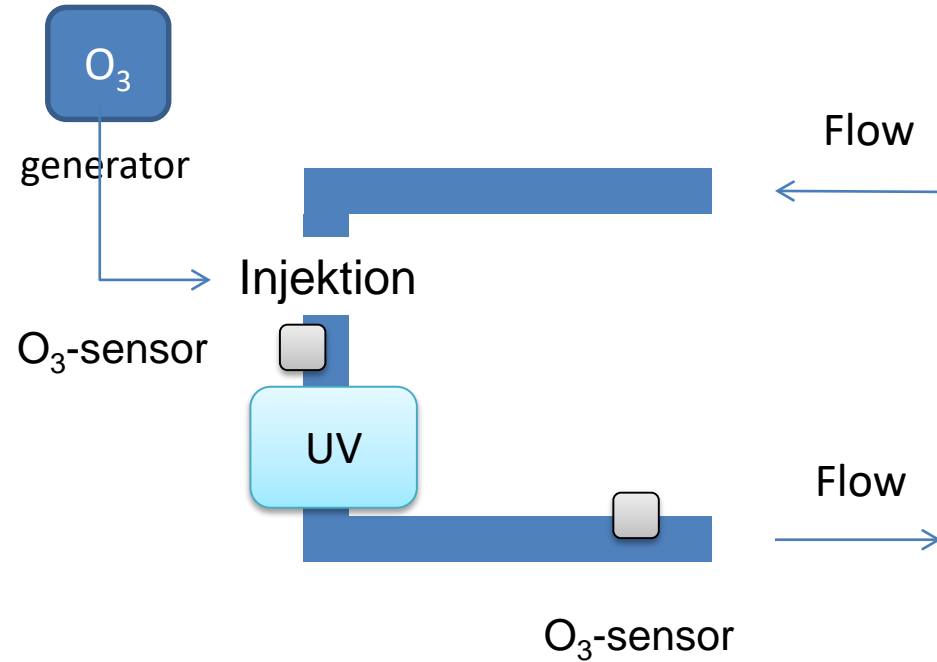
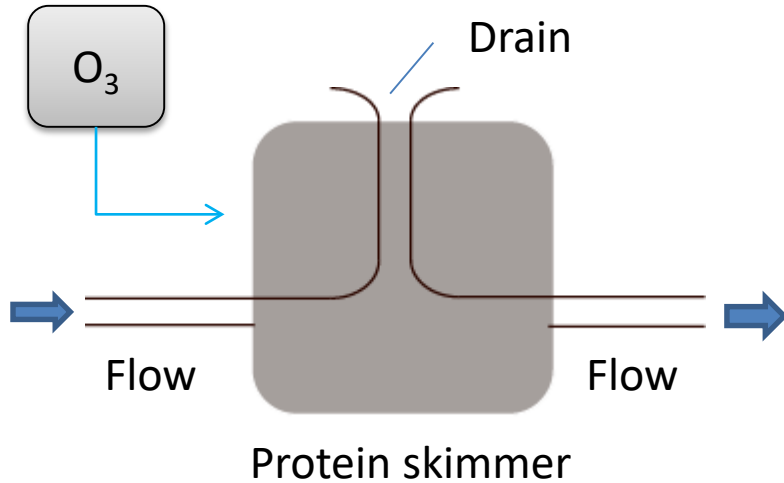
O₃ improves

Water
Quality

Geosmin

Hormones

Typical solutions





OxyGuard®

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