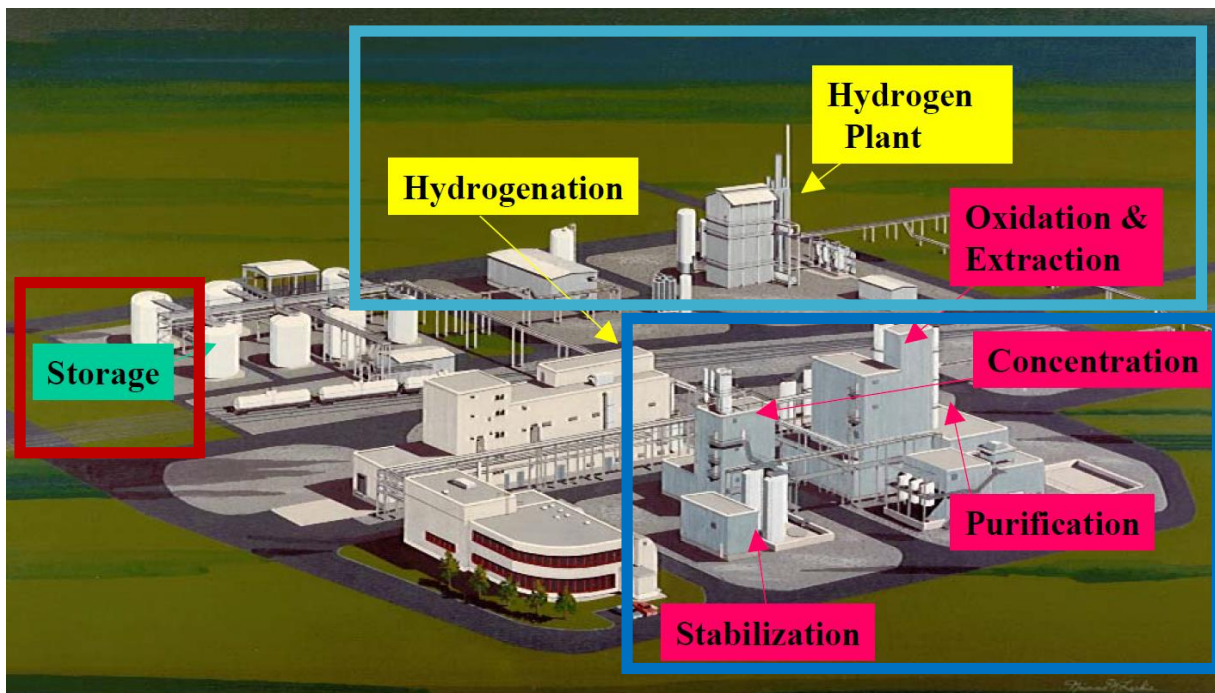




P E R O X Y G E N
S Y S T E M S

We provide hydrogen peroxide onsite production.

Reduce the production cost by over 50%!



Multistep
Organic phase
Synthesis

1%~3% H₂O₂




Concentration

Purification

Stabilization



Storage

30%, 50%, 70%

Corrosive/
Explosive



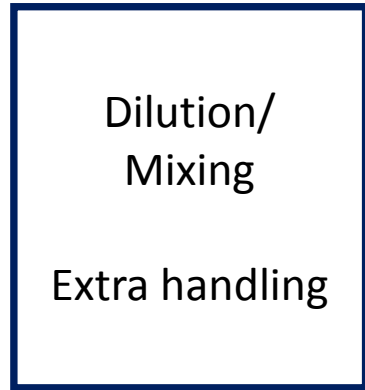
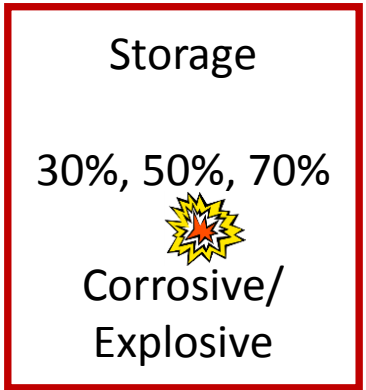
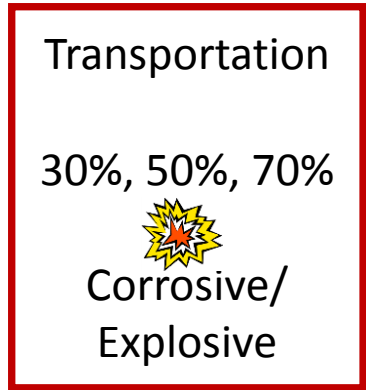
Customer industry use

Paper and Pulp:
0.5% ~ 5% H₂O₂

Waste water treatment:
0.5% ~ 6% H₂O₂

Silicon wafer cleaning:
~4% H₂O₂

Hospital disinfection:
1% ~ 3% H₂O₂



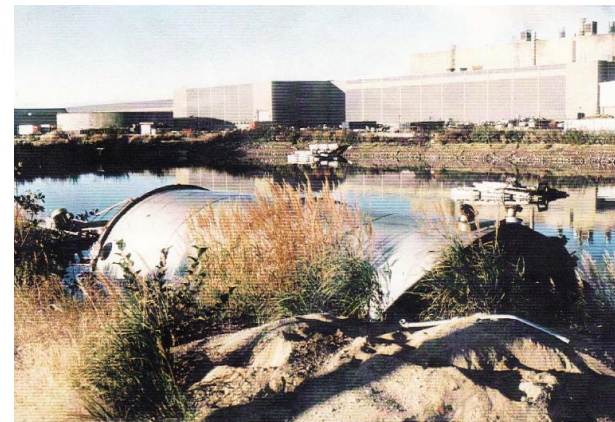
Tianjing Chemical Explosion August.2015



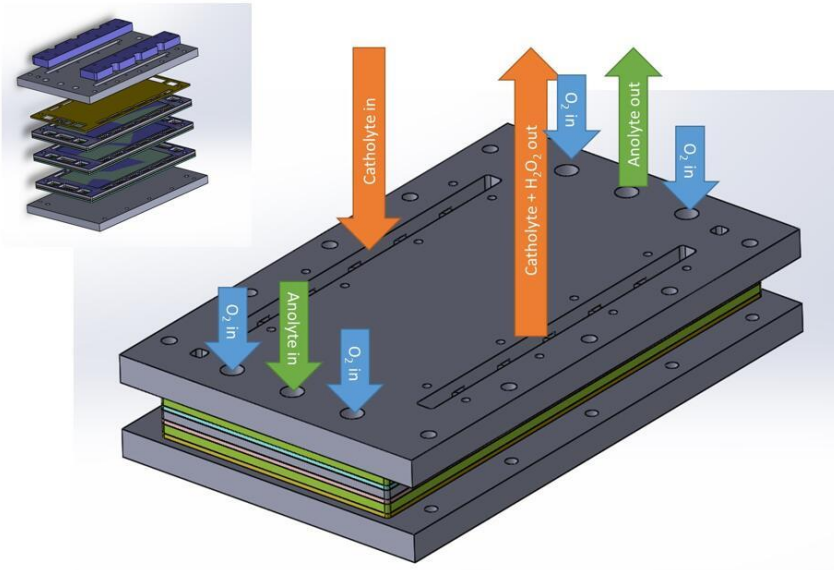
Hydrogen peroxide Storage & Transportation



Factory explosion (Jarrie - [Isère] France)



Storage tank explosion



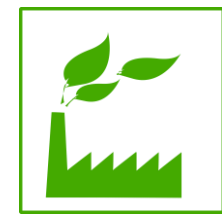
Consumes: →

Air
Water
Electricity

Produces:

Hydrogen peroxide
(High purity)

Green production



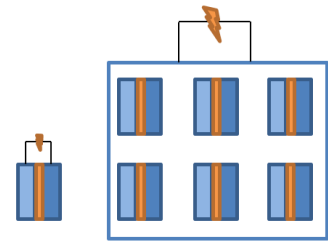
Modular: →

Flexibility in use

Compact/onsite

Scalable output

Reliable



Operation: →

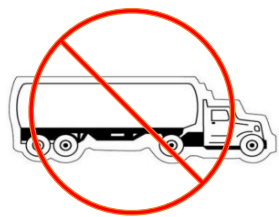
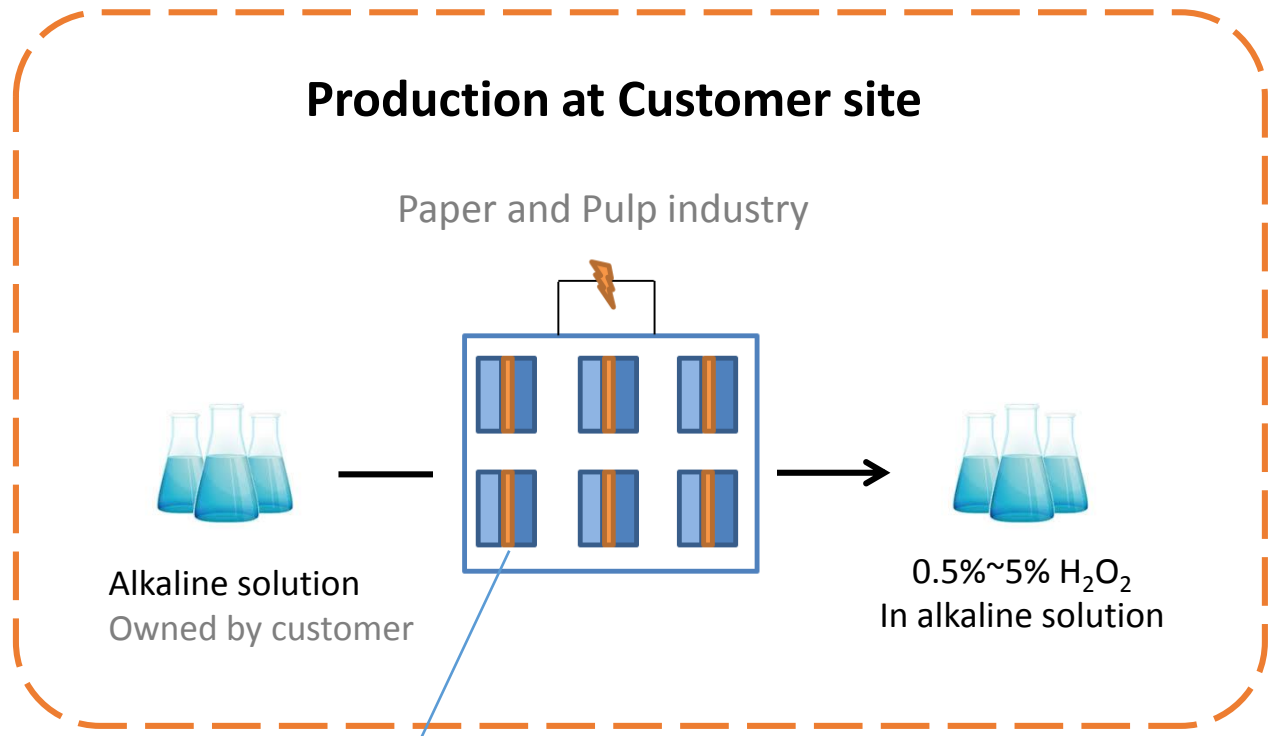
Much lower cost

Simple

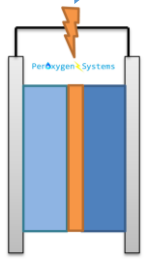
Efficient

Low maintenance





No shipping & handling



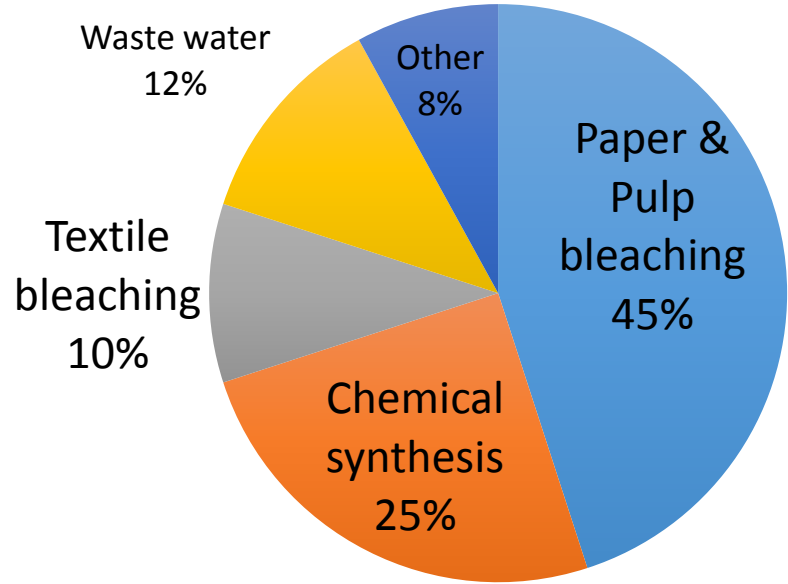
Individual control
with every module
Guarantee supply



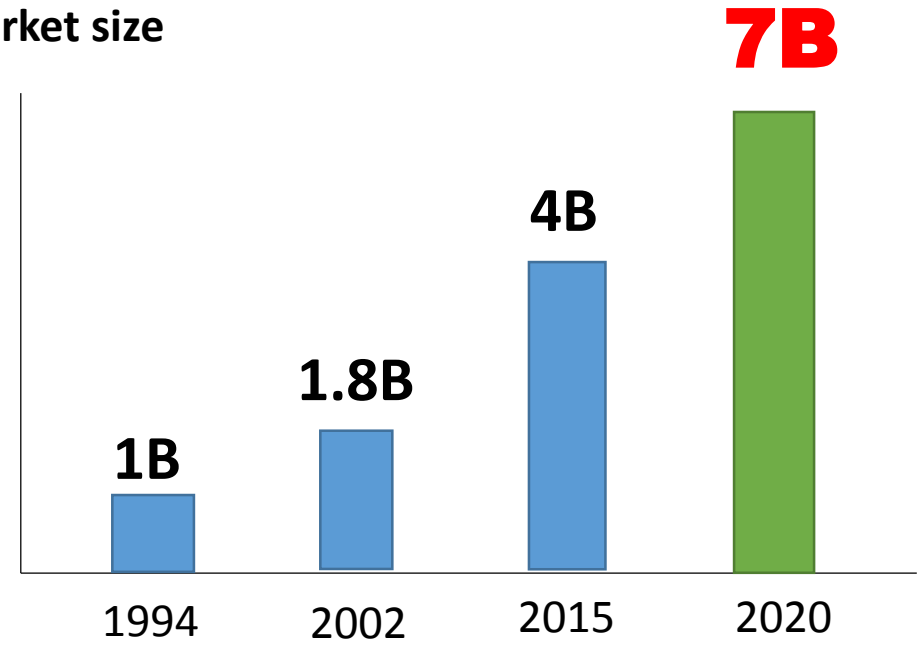
Safe operation



No hydrogen supply



Market size



Replacing chlorine based oxidizer

Total Existing Global Market: **\$4B**

Total Serviceable Market:
\$2.4B (3.5B in 2020)

Market size increase annually: **3%~6%**

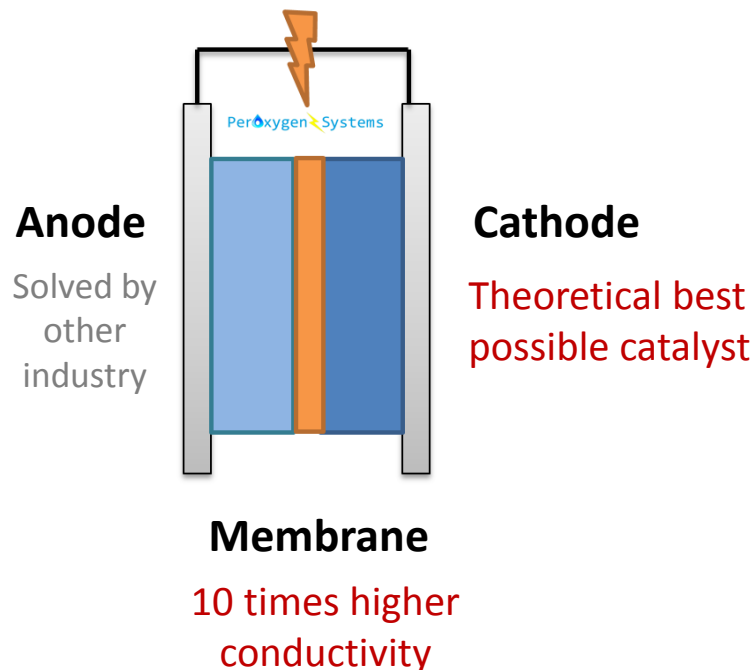
3 critical innovation:

Air cathode

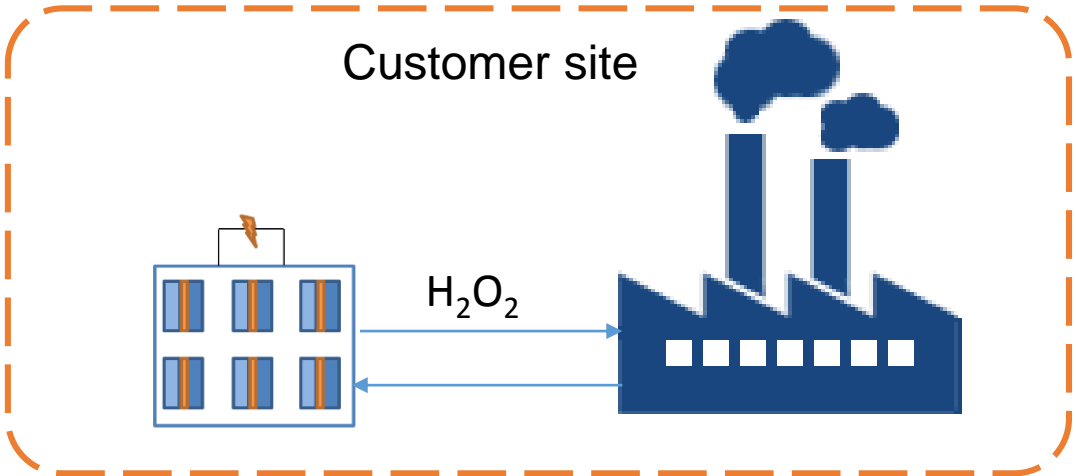
Electrolyte

Flow field design

H₂O₂ production Cost
50%~70% off
Traditional production cost



- Fully proved (medium scale)
- IP Protected
(Exclusively license with UT)
- Design and material leveraged
- No precious metal element



Peroxygen Systems

Direct sell H_2O_2

Paper and pulp industry

Produce H_2O_2



Pay H_2O_2 by usage

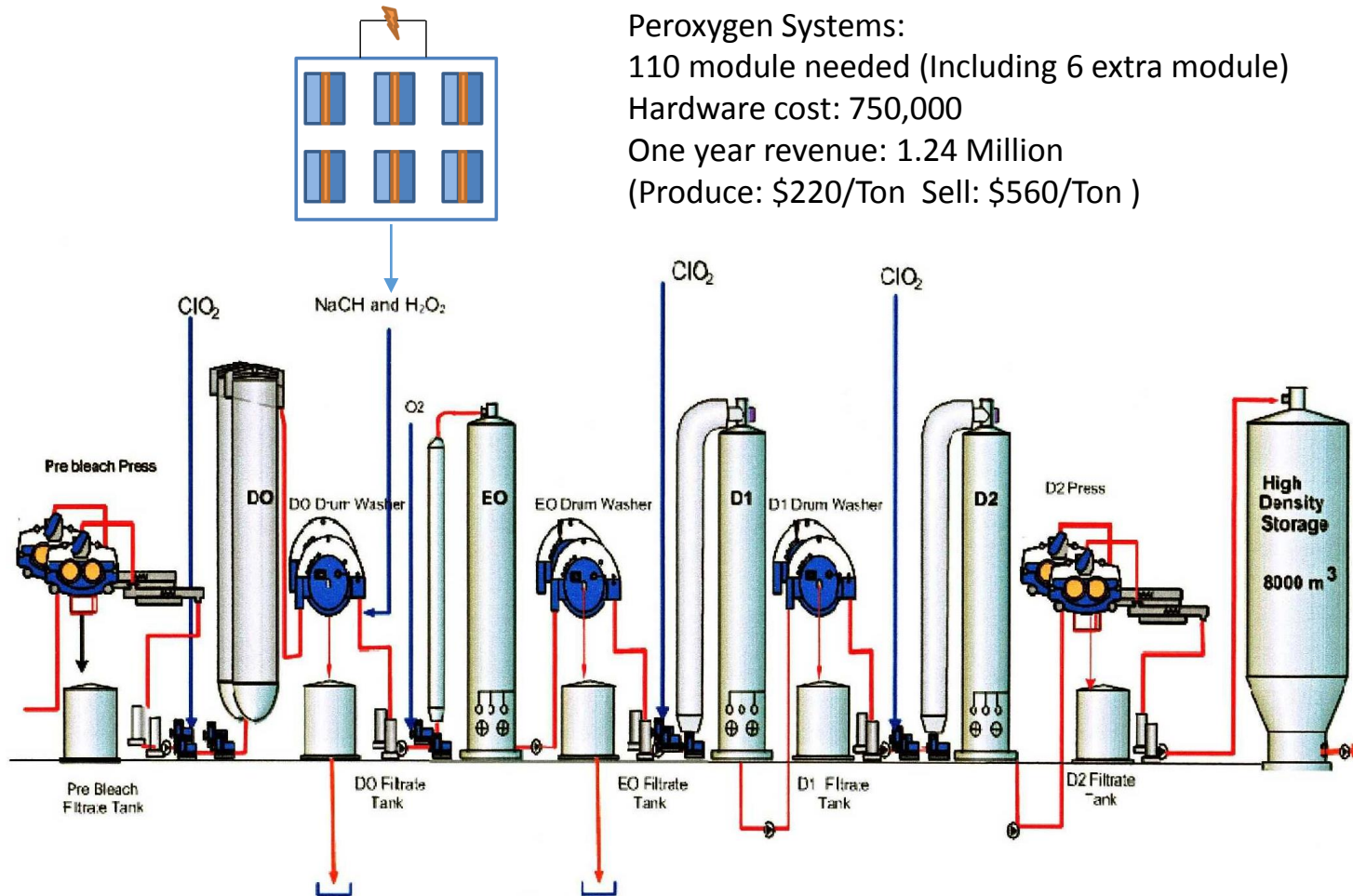
Onsite

| | Production cost | Sell price | Margin |
|------------------------|------------------|--------------------|-----------------|
| Paper pulp industry | 22c/Kg | 55c/Kg | ~50% |
| Waste water treatment | 26c/Kg | > 80c/Kg | > 65% |
| Semiconductor industry | 50~90c/Kg | \$12~45 /Kg | > 90% |

Customer use example

APP Hainan pulp mill:
3000 Ton per day
10.4 Ton H_2O_2 (100%)

Peroxygen Systems:
110 module needed (Including 6 extra module)
Hardware cost: 750,000
One year revenue: 1.24 Million
(Produce: \$220/Ton Sell: \$560/Ton)

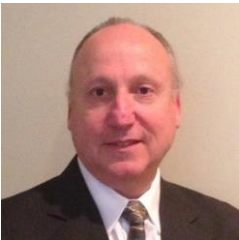




Dr. Ming Qi
Founder
Inventor of the core technology
Develop the technology from
concept to prototype



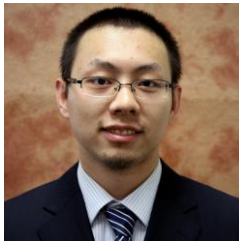
Dr. Thomas Zawodzinski
Co-founder
Co-Inventor of the core technology
International famous fuel cell, battery
and membrane expert



Gustavo Bottan
MIT Sloan MBA
17 years working experience in
paper industry



Dr. Steve Goebel
Flow field, hardware and system
design expert
13 years hardware design at GM



Dr. Mengqi Zhang
Lab manager



Dr. Jon Owejan
Flow field and hardware expert
7 years hardware design at GM

Board Advisor



Dr. Terry Douglass
Successfully developed Billion dollar
Hardware technology Company (CTI)
Chairman of Provision Healthcare
Alliance



Dr. Matt Fronk
Previous manager of
GM fuel cell department
20 years R&D, commercialization experience
With Fuel cell, battery technology



PEROXYGEN
SYSTEMS

Dr. Ming Qi

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