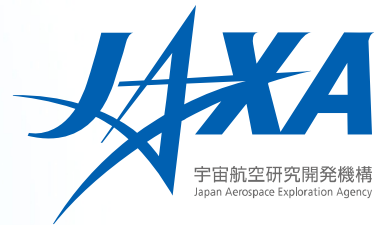


# JAXA INDUSTRIAL COLLABORATION

**Satoru Otake**  
**Japan Aerospace Exploration Agency (JAXA)**

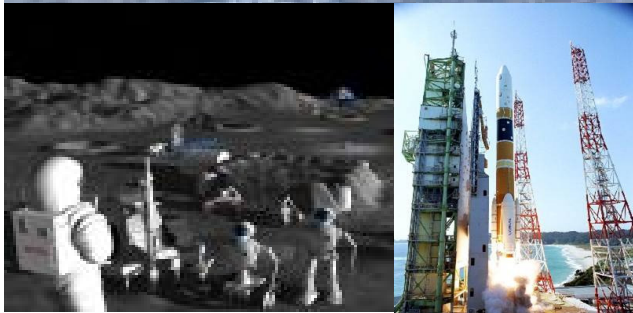


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## Different Types Of INDUSTRIAL COLLABORATION

Classification	Spin-off	Collaboration	Space Certification
Definition	<p>produced by patents / know-how of JAXA technology</p>	<p>produced in collaboration with JAXA</p>	<p>certified by JAXA for use in space</p>
Program of JAXA	<p>Intellectual property utilization program</p>	<p>OPEN-LAB</p>	<p>JAPANESE SPACE FOOD PROGRAM</p>

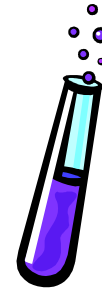
## Space Technology



Contributions to  
→ the Environment(Act.1)



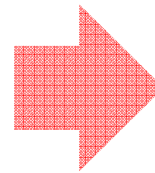
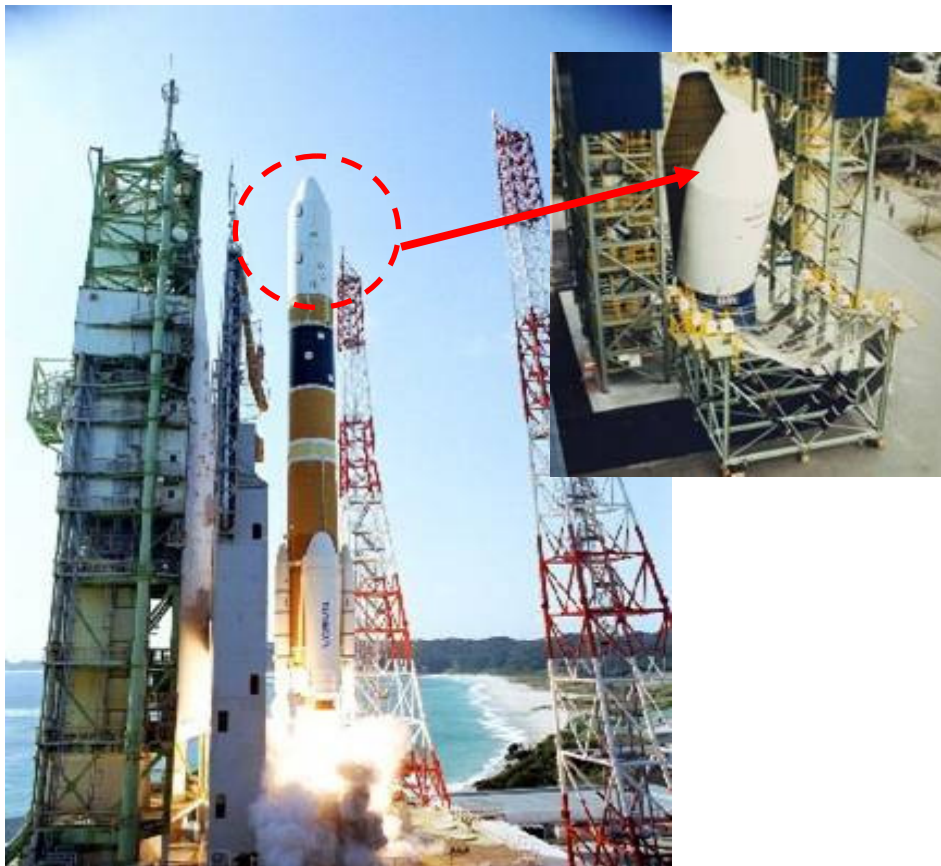
→ Medicine(Act.2)



# Act1:Environment Application to Thermal Insulation Paint



## Technology for Thermal Insulation Material for Rocket Fairing

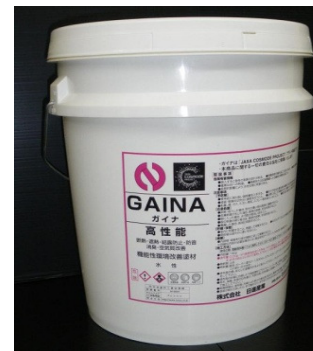


Product Name:G A I  
N A

■Cool in summer, warm in winter, only by  
applying GAINA

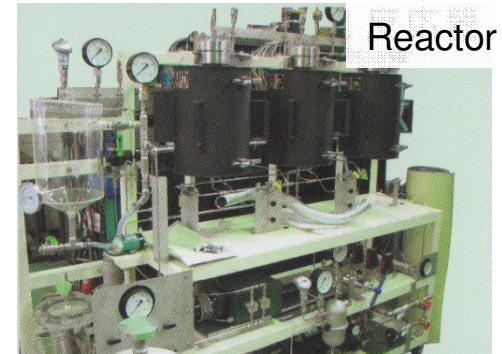
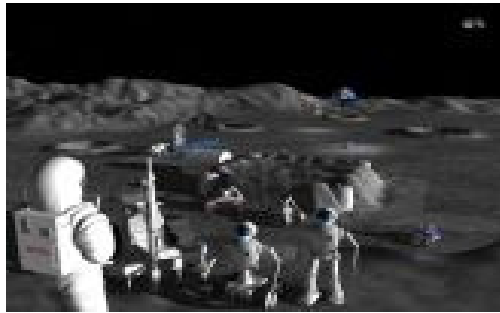


▲When GAINA is applied to the roof, exterior and interior of a house, it redirects sunlight, heat, and sound, resists dirt, and works as insulation and heat barrier. As well, the ceramic receives the sunlight and artificial lights, producing the ionization effect which improves the interior air quality, making a comfortable atmosphere with a good balance of positive and negative ions.



(C)Nissin Sangyo.Co.Ltd

# Act1:Environment Application to Waste Processing Equipments

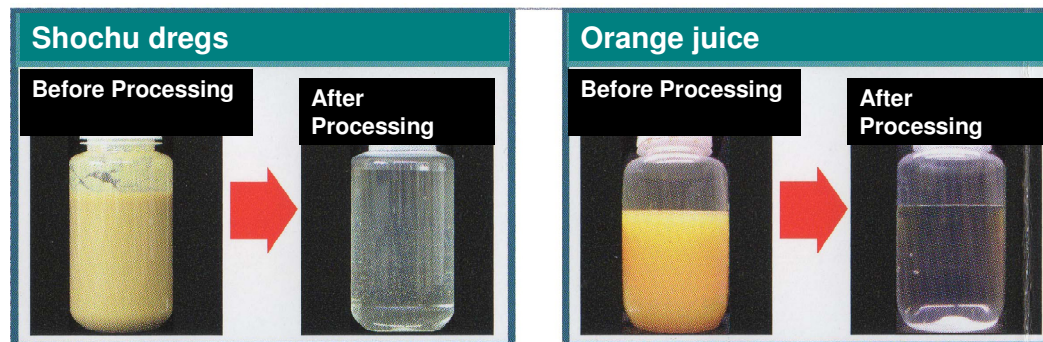


Technology  
for Resource Recycling of Products  
from Long-term Manned Space Activities

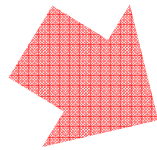
(C) Toyo Koatsu Co., Ltd.

## Reactor of the Processor (prototype)

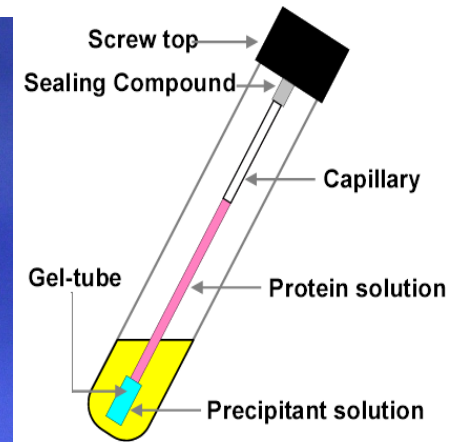
### Processing examples



(C) Toyo Koatsu Co., Ltd.



Technology for Protein  
Crystal Creation Equipments  
in the International Space  
Station



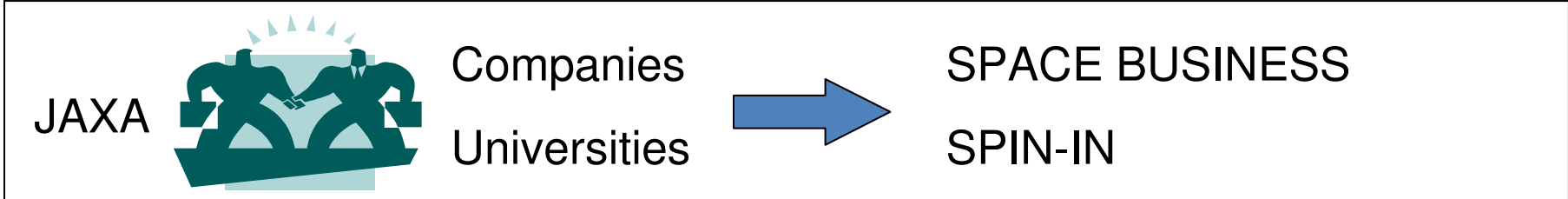
(c)Confocal Science Inc.



Protein crystal creation  
experiment kit(C-Tube)

Schematic Diagram of  
C-Tube

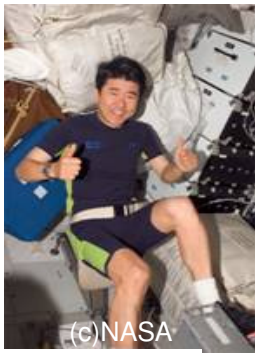
Various contributions in medicine have been made, for example in the basic analysis for the R&D of new medicines for diseases such as Alzheimer's.



For example

■ The research for life support in space

Special clothes were developed for astronauts to be able to work more effectively and comfortably in ISS. Because they were especially worried about soiling their clothes, the clothes are made of fiber that is processed to deodorize itself and stay clean.  
“Deodorized Underwear” utilizing this technology is now for sale to the public.  
(Japan Women's University, GOLDWIN inc. etc.)

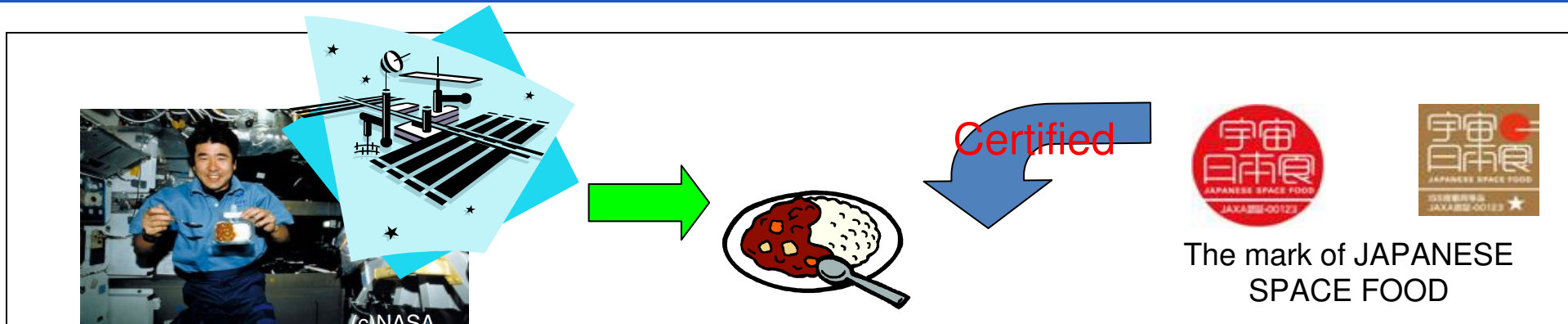


Deodorized Underwear



(c)GOLDWIN inc.

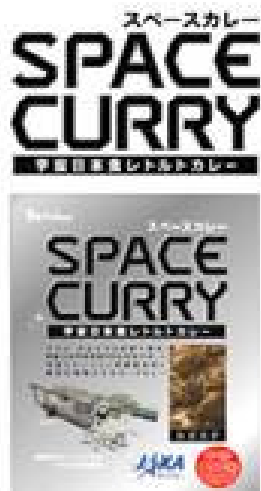
# JAPANESE SPACE FOOD PROGRAM



For example

3 items with the JAPANESE SPACE FOOD LOGO on the market.

- SPACE CURRY  
(House Foods co.ltd)



(c) House Foods co.ltd.

- YOHKAN  
(Yamazaki Baking Co.Ltd)



(c)Yamazaki Baking Co.Ltd

- Green Tea  
( Mitsui Norin Co.,Ltd .)



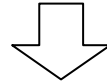
(c) NASA/JAXA/Mitsui Norin Co.Ltd



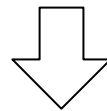
## Brand Summary

We would like people to

- use space development technology more widely, and
- feel that space developments are more relevant to their lives.



**"Product Development Project."**  
was established to bring the cutting edge ideas  
that came out of Japanese space development  
into the daily lives of people.



Goods and services  
developed by the project.

JAXA grants the use of "JAXA COSMODE PROJECT" logo.

