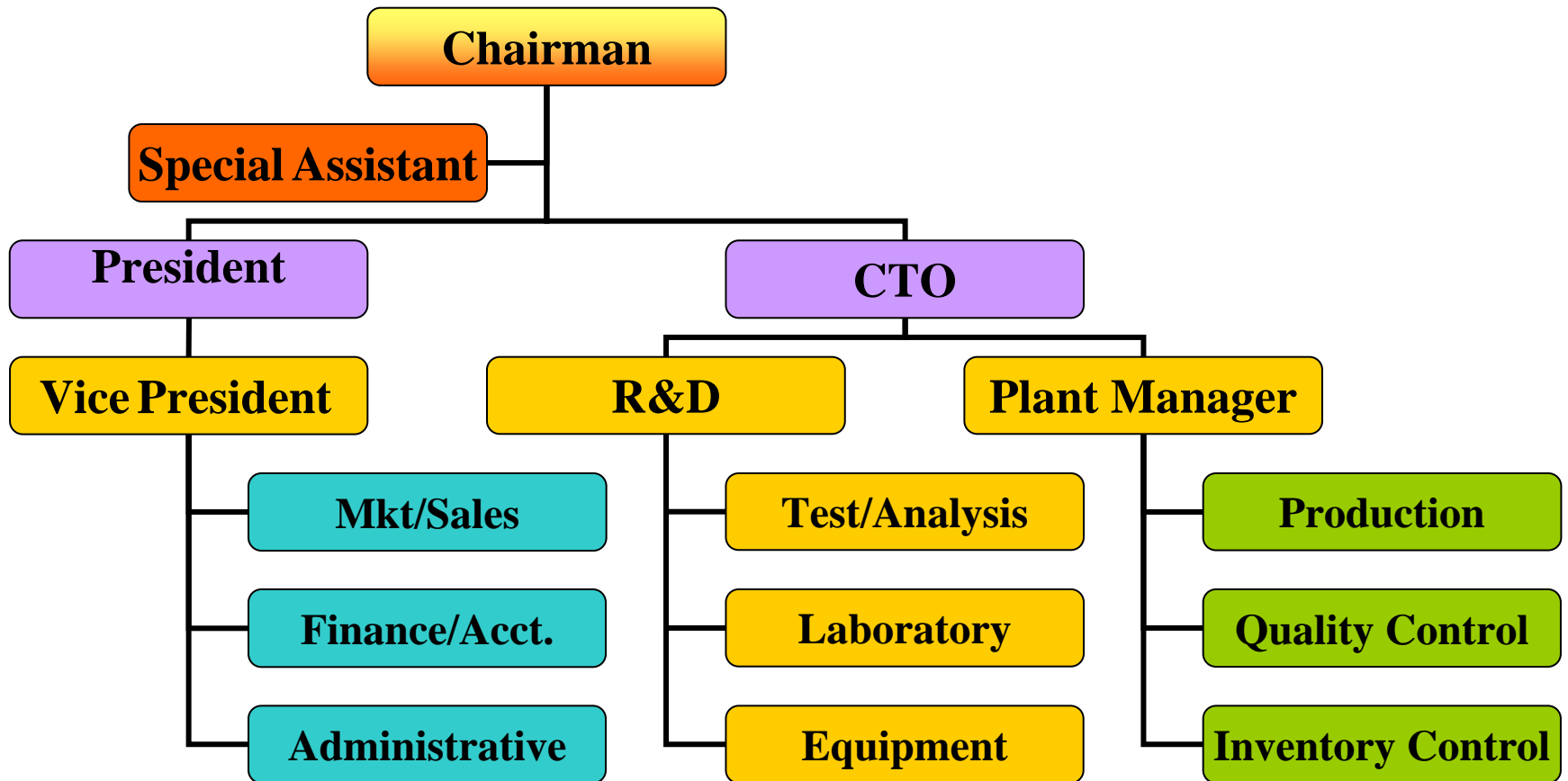




[Top Nano Technology Co., Ltd.](#)

Company Structure



Patents

- The microwave absorption components and their structure(TW Patent 1250185)
- Radar-wave camouflage structure and method for fabricating the same , (US Patent7511653)
- Wear-Resistive housing for a portable electronic device (TW Patent Pending 2006)
- The nickel hydroxide electrode(TW Patent 139117)
- Container made of a porous material and coated with precious metal nano particles and method making same (TW Patent I298246)
- A thermal Management material (TW Patent 097150291)
- The process and products of nano-ceramic material with antibacterial and catalytic effect.(TW patent pending 98113453)
- The process and products of a air filter with anti-bacteria and deodorization effect. (TW patent pending 98115644)
- The process and products of a porous carbon material with anti-bacterial and catalyst effect, (TW patent pending 98117006)
- The process and products of nano-composites upgrade far-infrared effect. (TW patent pending 98123173)
- The process and products of a conductive coating from the carbon nanotube composite material (TW pending 98128617)

Certificates

- **SGS (UF/2008/60786-02) for Top Nano Tea Pot ‘Aroma (The application of Patent I298246)**
- **GS (UF//2007/B0006A-01) for Top Nano Moon Drunker Flagon (The application of Patent I298246)**

Nano Material– A World Trend

- Applications of nano materials are on their ascending

- In construction

- cement, paint

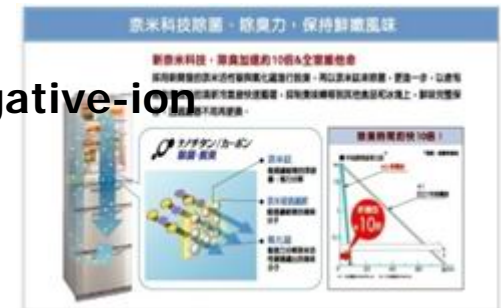
- Public area in Japan: McDonald



- In consumer products

- Hitachi freezer: photo catalyst, negative-ion

- Samsung's "nano silver system"



- In medical

- FDA approved usage

- Silver wound dressing, bandage, facial mask.....



There are a lot more...



What you can expect from nano..

Fast reaction

Less dosage

Innovations



Common problems...

- Dispersion
- Re-agglomeration

Key: good dispersion and prevent re-agglomeration



Top Nano Technology

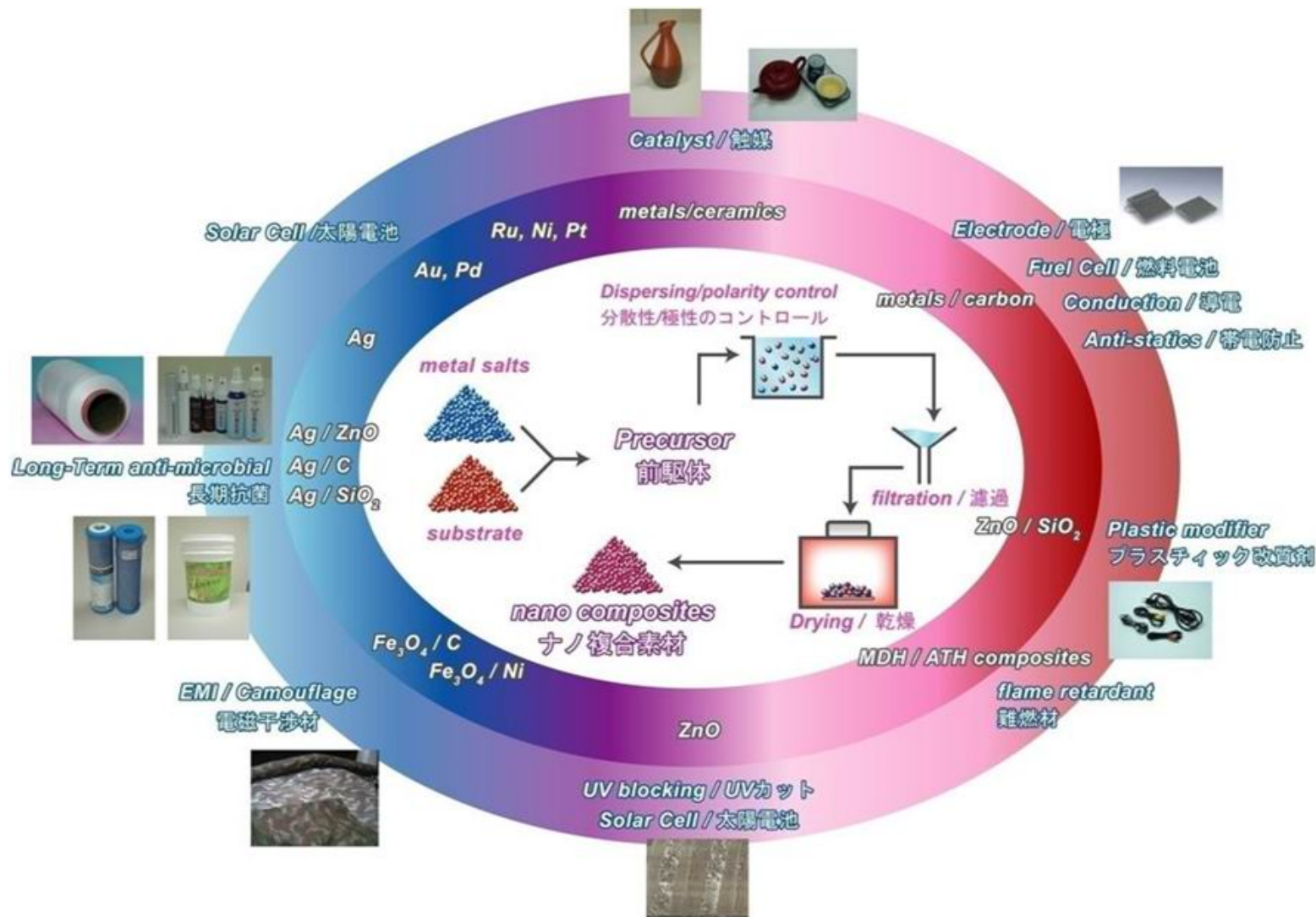
- R&D, Manufacturing, Marketing, all in one service
- Worldwide patented technologies
- **Brings innovations and adds value to various industries, with state-of-art technology in dispersing techniques**



Core technology

- **Technology of manufacturing nano material**
 - Nano precious metal
 - Nano metallic oxide
 - Nano multi-function composited materials
- **Technology of dispersion**
- **Technology of application**

Product



Various Composite material

- Nano palladium/graphite
- Nano palladium/zinc oxide
- Nano ruthenium/graphite
- Nano ruthenium/zinc oxide
- Nano platinum/graphite
- Nano platinum/zinc oxide
- Nano platinum/silica
- Nano silver/zinc oxide
- Nano platinum ruthenium/carbon

**Nano scale precious metal catalysts will stay
“firmly” on selected substrates**

Fuel Cell

Proton Exchange Membrane Fuel Cell (PEMFC)

-Nano grade: Pt/C, Pt/MWNT, Pt/Pd/MWNT

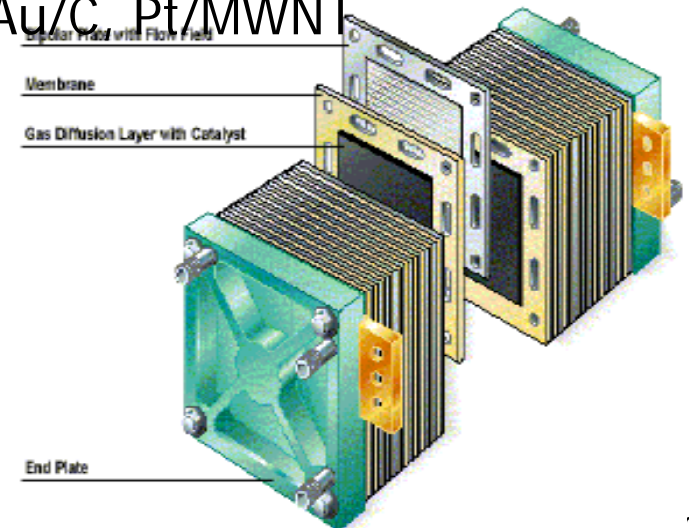
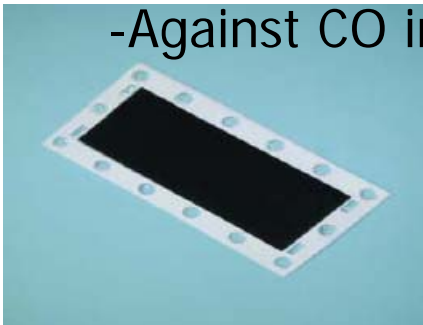
Methanol Fuel Cell

-Nano grade: Pt/C, Pt/Ru/C, Pt/Ru/Au/C, Pt/MWNT

-Fast reaction

-Enhance function of Ru

-Against CO intoxication

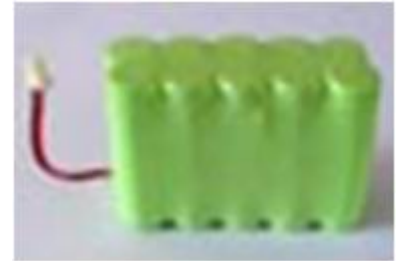


2nd Ni-HM battery

- Ni-MH

- Cathode – $\text{Ni(OH)}_2/\text{Ni}$

- Enhance Instantaneous discharge capacity
 - Extend the shelf life and charge-discharge Frequency of use.



Top Nano – advanced materials

■ Catalyst

- Nano palladium, nano ruthenium, nano platinum and their active carbon composites
- Usages: accelerating various reactions

■ Electrical conductive/Antistatic material

- Carbon nanotubes, zinc oxide, silica and other composite materials
- Applications: **touch panels**, electronic packaging materials, shell of IT products

■ Thermal management

- Aluminum nitride, carbon nanotubes, zinc oxide, metal powder, such as composite materials
- Application: **CPU**, electronic devices, **LED lamps**



1000 级净化车间防静电地板与通风系统安装图
Installation of the coating aluminum solid panel and grating panel in 1000 class cleanroom



1000 级净化车间防静电地板与通风系统安装图
Installation of the coating aluminum solid panel and grating panel in 1000 class cleanroom



Anti-Static Materials

We produce nano-composite anti-static materials with well-dispersion, including nano-metals, metal oxides, carbon nanotubes, and so on. By using lower solid content with the polymer resin and uniformly mixing, we can construct a stable conductive network, makes products with low prices and excellent antistatic properties.



Thermal Management

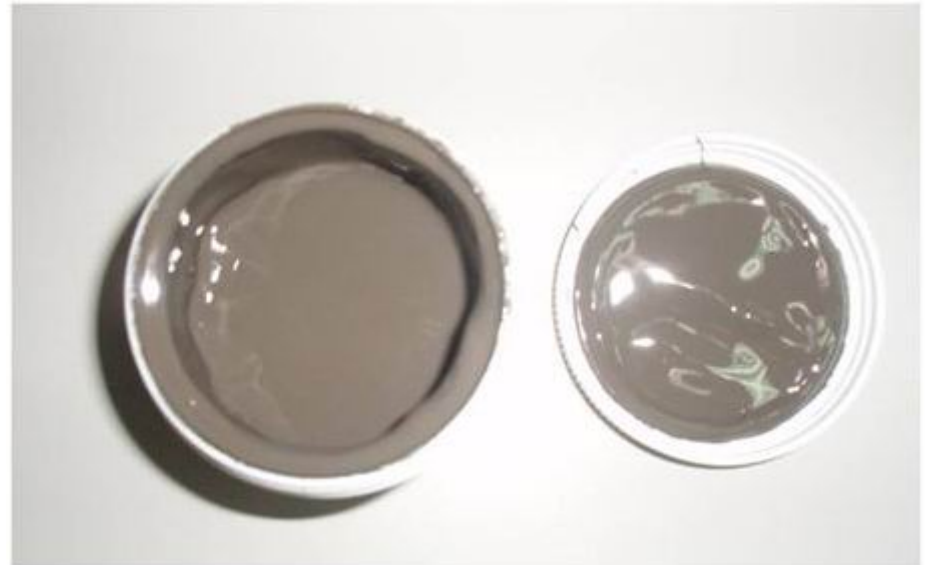
Using nano-modification of surface and dispersion technologies of thermal conductivity ,further combined with polymer processing technology, we can enhance the compatibility between thermal conductivity materials with the substrate (including silicone, fluide, polymer, plastics, etc.), and upgrade the capability of heat dissipation.

Heat sink pastes
Heat conduction/導熱



Ag-Pd paste-Electrode

for Co-fired Ceramic
Internal Electrode
(SMD)





Other advanced materials

- Nano magnetite (Fe_3O_4 composites)
 - usages: EMI shielding, camouflage and wave absorber.
- Anti-abrasion(ZrO_2)
 - usages: coatings, plastics
- UV cut – zinc oxide (ZnO)
 - coatings, plastics, skin care products
- Smoke-free flame retardant ($\text{MDH/nanoclay/ZnO/SiO}_2$)
 - Wire and cable, building materials, furniture

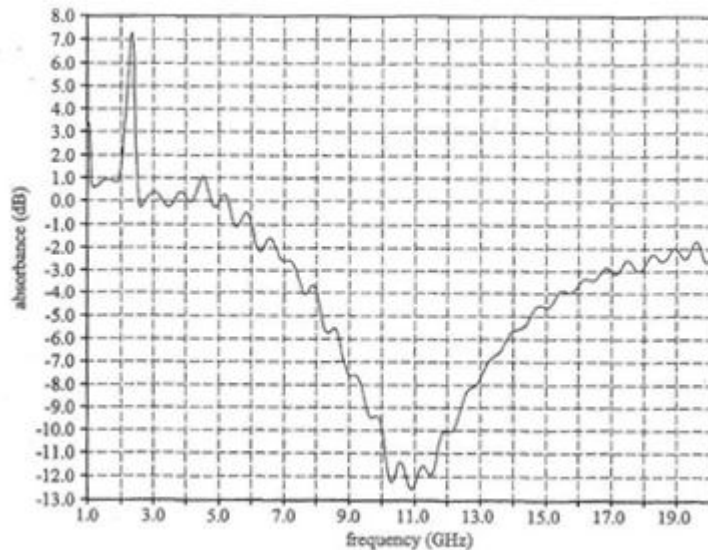
Nano magnetite composites

(Fe_3O_4 , $\text{Fe}_3\text{O}_4/\text{C}$, $\text{Fe}_3\text{O}_4/\text{Ni}$)

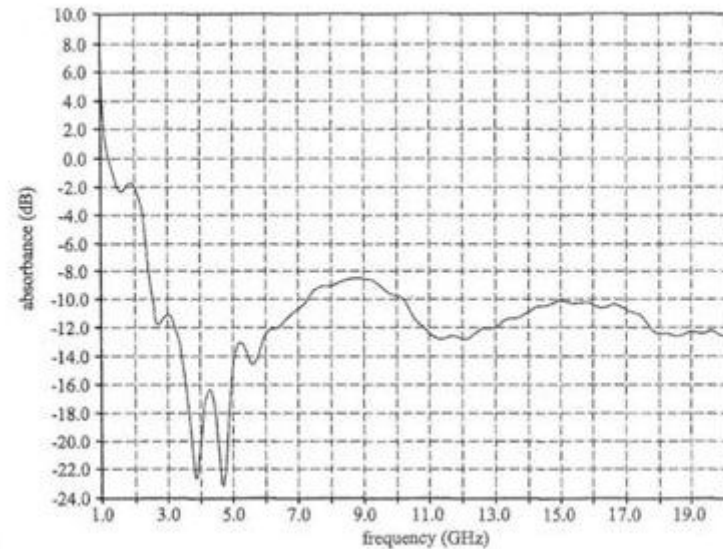
- Military applications – lighter, thinner equipments



Traditional vs. Top Nano's



Traditional –effect on
narrow wave range



Patented formulation with nano
magnetite, wider wave range



Bio Techs – into life

Healthy, delicate life

HIV vs. nano



- University of Texas at Austin, a report in 2005
 - Size does matter!!!
 - Nano silver with size less than 10nm
 - Concentration of 25ppm

HIV-1 viruses were terminated completely in 24 hrs



Nano silver from Top Nano

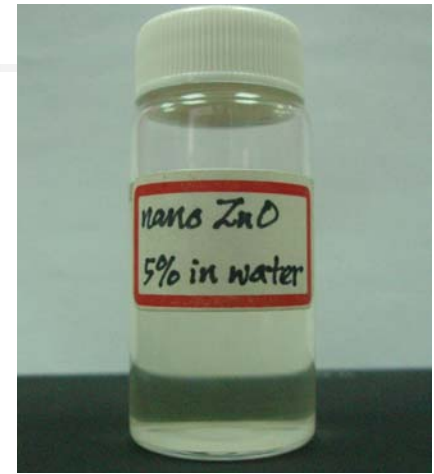
- Super fine particles(<5nm)
- Will not induce drug resistance, known to be effective on over 600 types of germs/virus
- Accelerate wound healing
- Known to be effective on certain dermatosis
- Work on birds flu



Birds flu Test, no light in effect

	<u>Virus type</u>	<u>Int. Inoculation</u>	<u>72hrs later</u>	<u>effectiveness</u>
H6N1	EID ₅₀ /0.1ml	1.0 x 10 ⁶	10	99.999

Nano- Zinc-Oxide from Top Nano

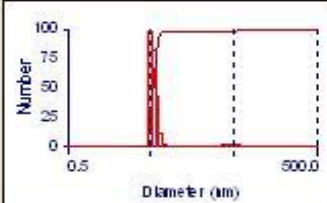


- Long-lasting anti-viral environment spray
- Nano Photocatalyst zinc oxide transparent dispersions
- Excellent helper for Inhibiting intestinal virus and H1N1 .

Characteristic :

1. Nanometer particles of zinc oxide(size : 5.3nm).
2. Spraying indoors (under fluorescent) or outdoor (under UV) can fully kill bacteria.
3. Unique formula being sprayed on the walls, tables, and sinks, which can offers well attachment.
4. Our photocatalyst products provide longer efficacy than other antimicrobial agents in general.

Sample ID #3 ZnO nanoparticle (Combined)
 Operator ID Matthew
 Elapsed Time 00:15:00
 Mean Diam. 5.3 nm
 Rel. Var. 0.009
 Skew 3.032



d(nm)	G(d)	C(d)	d(nm)	G(d)	C(d)	d(nm)	G(d)	C(d)
3.2	0	0	9.8	0	100	29.5	0	100
3.6	0	0	10.8	0	100	32.7	0	100
4.0	0	0	11.9	0	100	36.1	0	100
4.4	0	0	13.2	0	100	40.0	0	100
4.8	100	42	14.6	0	100	44.2	0	100
5.3	83	77	16.2	0	100	48.9	0	100
5.9	44	95	17.9	0	100	54.0	0	100
6.5	11	99	19.8	0	100	59.8	0	100
7.2	1	100	21.9	0	100	66.1	0	100
8.0	0	100	24.2	0	100	73.1	0	100
8.8	0	100	26.7	0	100	80.8	0	100

Number

產品名稱：Song Sing 奈米 ZnO 光觸媒分散液
產品敘述：滅菌、去病毒、防霉、自淨、抗 UV
產品型態：SSNZ4
供應廠商：松星奈米科技有限公司
製造日期：民國 92 年 5 月
保存期限：3 年
取樣日期：民國 92 年 5 月 20 日
檢驗日期：民國 92 年 5 月 28 日
測試項目及方法：

抗菌測試：參照 U.S. Pharmacopeia 24 NF 19 Microbiological Tests (51)
 Antimicrobial Effectiveness Testing.
 照射紫外燈 24 小時

測試結果：

菌株名稱		作用時間	
		原接菌量	作用 24 小時後菌量
金黄色葡萄球菌(<i>Staphylococcus aureus</i>)	(CFU/ml)	1.8×10^5	<u>N.D.</u>
大腸桿菌(<i>Escherichia Coli</i>)	(CFU/ml)	7.0×10^5	<u>N.D.</u>
綠膿桿菌(<i>Pseudomonas aeruginosa</i>)	(CFU/ml)	1.7×10^6	<u>N.D.</u>
肺炎桿菌(<i>Klebsiella pneumoniae</i>)	(CFU/ml)	7.4×10^5	<u>N.D.</u>

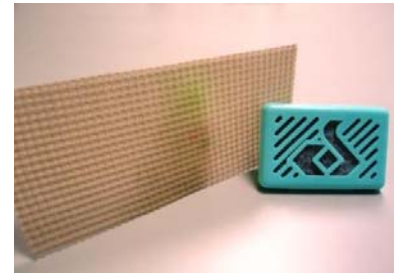
Nano Gold

- ▣ Ultrafine particles (<20nm)
- ▣ Has excellent CO oxidation activity
- ▣ Catalytic different types of hydrogenation
- ▣ Accelerate esterification of Alcohol
- ▣ Skin renew, anti-oxidation and to enhance the body's immune system.



Life with Nano Technology

- To eat, To dress, To live
 - Cosmetics, personal care
 - Fibers, textiles
 - Cutlery, food containers, drinking water treatment
 - Mattress, shoe sole, sponge
 - Healthy living – anti-spetic, negative-ion
 - Ceiling, wall and floor



Eat with nano

“Nano Magic”

Nano flagon - *Moondrunker*

- Patented precious metals techniques
- Reducing spiciness in seconds
- Brings more aroma to malt wine, certified by SGS Taiwan



Items	Result (blank)	Result (exp.)	change
Ethanol	49.3%	47.1%	-4.47%
n-propanol	6860ppm	3380ppm	-50.7%
Ethyl Acetate	6110ppm	5920ppm	-3.11%
2-methyl-1-propanol	312ppm	326ppm	+4.49%
Isoamyl alcohol	1920ppm	1690ppm	-12.0%
Ethyl lactate	2530ppm	2870ppm	+13.4%

Nano porcelain flagon

- Patented precious metals techniques
- **Reducing spiciness in seconds**
- Brings more aroma to malt wine, certified by SGS Taiwan

Test Item	CAS NO.	Test Method	Test Results (Control)	Test Results (Experiment)	MDL	Unit	Ratio of Change (%)
Ethanol	000064-17-5	The control 58°K nimen sorghum liquor. The experiment: Put the 20mL control liquor into the sample and shake for 5 minutes.	42.8	35.7	---	%	-13.6
1-Propanol	000071-23-8		2350	1130	1.0	ppm (mg/kg)	-51.9
Ethyl acetate	000141-78-6		4520	2960	1.0	ppm (mg/kg)	-38.6
2-Methyl-1-propanol	000078-83-1	Take per 15 uL of The control and the experiment into headspace vial. With reference to USEAP 5021 method. Analysis was performed by GC/MS.	456	133	1.0	ppm (mg/kg)	-70.8
Isoamyl alcohol	000123-51-3		1250	289	1.0	ppm (mg/kg)	-76.9
Ethyl lactate	000687-47-8		463	3850	1.0	ppm (mg/kg)	+732





3 shakes – what can you get...

- Based analysis by SGS, no. UG/2007/B0006
 - Increase Aroma
 - Ethyl acetate down, ethyl lactate up
 - Reduce spiciness and strange tastes
 - Isoamyl alcohol is down
 - Less unwanted alcohol content
 - Ethanol down
 - Reduce the risk of alcohol toxicity – less n-propanol

Nano Tea Pot - Aroma

- Patented precious metals techniques
- Releasing tea flavor in seconds.



Test Item	CAS NO.	Test Method	Test Results (Control)	Test Results (ExperimentI)	MDL	Unit	Ratio of Change(%)
L-Theanine	3081-61-6	Immers 15g tea leaves in 250ml 100 °C water into the pot for 90 seconds, take the portion of liquid for testing.	0.218	0.307	0.05	%	40.8
Catechin	---		---	---	---	--	---
Catechin	18829-70-4		0.760	0.921	0.05	%	21.2
EGCG	989-51-5		0.847	1.13	0.05	%	33.4
ECG	1257-08-5		0.117	0.156	0.05	%	33.3
Caffeine	58-08-2		0.874	0.799	1.0	%	-8.58
Tannin	1401-55-4		2.61	2.03	1.0	%	-22.2



By Nano Tea Pot– what can you get... ..

- **Based analysis by SGS, no. UG/2008/60786-02**
 - Decrease Tannin
 - reduces the bitterness and improve the taste.
 - Decrease Caffeine
 - diminishes the negative influence on stomach and osteoporosis.
 - Increase Theanine
 - improves immunity and prevents arteriosclerosis efficiently.
 - Increase Catechins
 - promote antioxidant properties , protection of normal cell, and reduction of chronic diseases.



Safety Test

Test Item	CAS NO.	Test Method	Test Results	Detected Limit	Unit
Silver (Ag)	007440-22-4	With reference to SGS in-house method. Analysis was performed by ICP-MS.	N.D.	0.010	ppm(mg/kg)

Test Item	CAS NO.	Test Method	Test Results	Detected Limit	Unit
Gold (Au)	007440-57-5	With reference to SGS in-house method. Analysis was performed by ICP-MS.	N.D.	0.010	ppm(mg/kg)

Water filtration unit

- Active carbon composites
 - Nano silver embedded, anti-microbial
 - Extending life time of filter units
 - installed at end unit



	<u>Int.</u> <u>Inoculations</u>	<u>1 hr</u>	effectiveness
E. Coli	1.0×10^5	5.4×10^3	94.5%
Staphylococcus aureus	3.3×10^5	1.4×10^3	99.5%

Dress with nano

Nano filaments

Nano silver fibers

- Nano silver in PP, PET, Nylon
- Particles are surface treated, disperse well in polymers
- Good color shade



Test standard: USP 51

<u>Germ type</u>	<u>Int. inoculation</u>	<u>24hrs</u>	<u>Eff.</u>
Trichophyton mentagrophytes (CFU/ml)	5.0 x 10 ⁵	<10	99.99%

Nano silver fabrics

- Dipping
- Soft touching
- Effective after several washing cycles



<u>Test on cotton towel</u>		logC	Antimicrobial activity value	Bactereostatic activity value
Staphylococcus aureus	W=30	>1.3	3.1	5.5
Staphylococcus aureus	W=5	3.5	0.9	3.3

• Remarks: AAC>0, BAV>2.0 to be effective

Nano-ZnO coating

- UV hard coat resin is the main composition ,with zinc oxide nano-composite material for brightening, anti-UV, anti-bacterial medium
- Soft
- Antibacterial effect maintains after washing and cleaning.



Nano in house

Nano construction materials

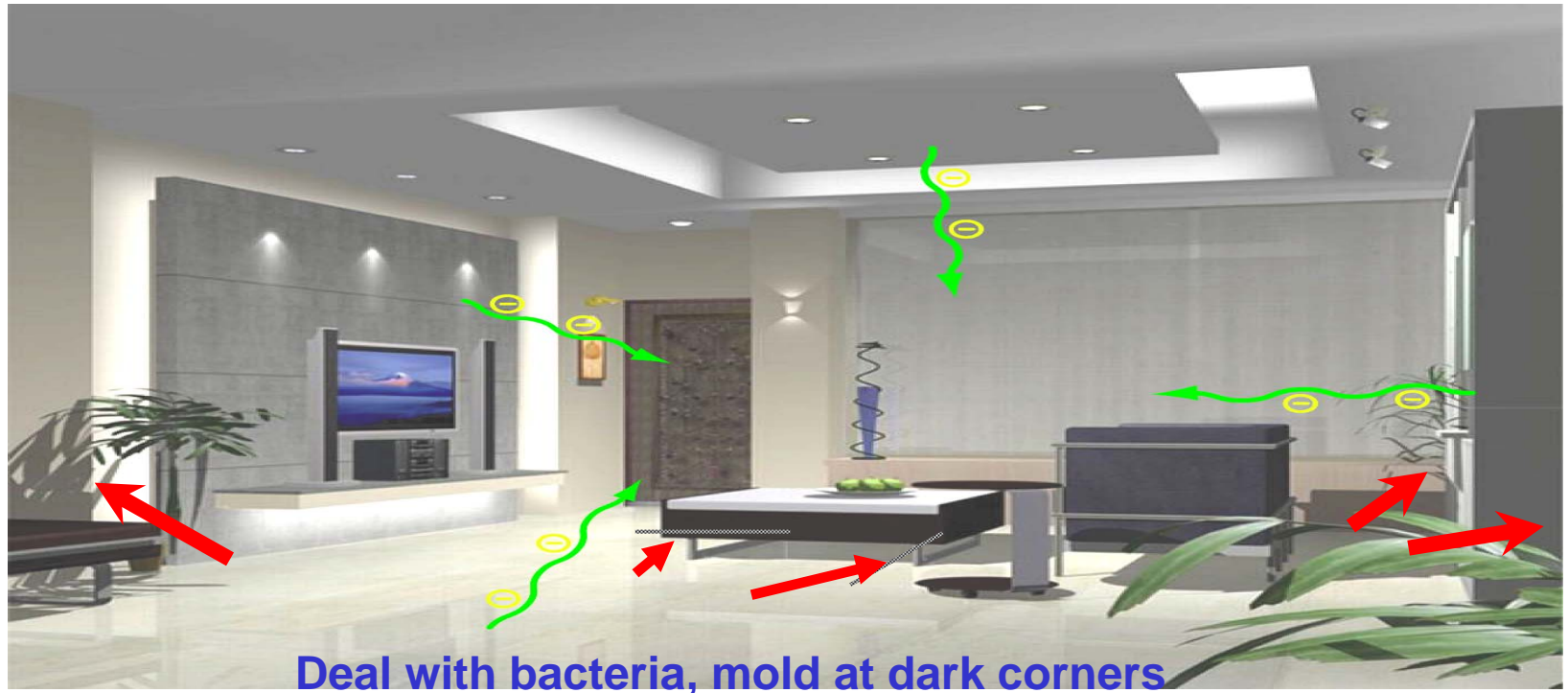
Healthy House –Live Building Materials –

- Allow the house to put on anion clothes
- Whether with light or not, bacteria destroyed
- Standard construction, no special method



The composition of Healthy House

- No special construction method
- Negative ions released from all directions
- Deal with bacteria, mold at Dark corners



Our environment

- Life around, and positive ions produced constantly
- Steam, locomotive emissions
- Smoke particles (smoke, soot, etc.)
- Electromagnetic waves (computers, electrical appliances, etc.)



Positive ion >> Negative ion
=Diseases of civilization

The Effectiveness of Negative ion

-According to reports of Japan:

- Vitamin in the air
- Increase in electron concentration in the blood and the elimination of the effects of free radicals
- Purification of blood, so that increase blood pH value (hydrogen ion concentration decreased)
- Alleviate stress and regulation of autonomic nervous system
- Control of chronic diseases (Diabetes, rheumatism, preventive medicine, etc.)
- Slow down the aging

Generation of Negative ion

- Friction
 - From the impact of water falls : friction with water molecules and the air particles produce anion.
- Electric field excitation
 - Anion released from air-conditioners, fans.
 - Disadvantages: ozone produced at the same time.
 - Energy loss
- Nature energy stone material
 - Air particles with anion from volcanic rocks
- -Large number of anion energy particles produced
- from Top-nano's unique technology.

Negative-ion interior paint

- Better indoor environment, delicate living
 - Improving air quality, removing bad smell
 - Reducing risk of illness
 - Anti-microbial
 - Removing humanbody free radicals
 - Raising humanbody blood PH value
 - Releasing work pressure



Germ: Aspergillus niger(ATCC9642), no light in effect ; US Pharmacopeia 26NF 21, Microbiology Test 51

<u>Sample</u>	<u>Int. Inoculations</u>	<u>7 days</u>	<u>effectiveness</u>
Competitor's	2.3×10^5 (CFU/ml)	2.3×10^5	0
Top Nano's	2.3×10^5 (CFU/ml)	3.1×10^4	86.5

Safety

- Number of negative ions emitted are around 100 ~ 200 ions/cc.
- Safety issue:

number:951673

sample	Dose equivalent: $\mu\text{Sv/hr}$
background	0.08~0.15
Nano negative-ion, anti-fungi, anti-microbial interior paint (1150g), surface	0.2
Nano negative-ion, anti-fungi, anti-microbial interior paint (1150g), 0.1m from surface	<0.2

According to regulations of atomic energy council, dated 2003.1.29, No. 0920002030, radiation of any merchandize should be less than 0.2 $\mu\text{Sv/hr}$, measured from any surface, at the distance of 0.1 meter

healthy environment

- anion paint

- Positive ion and Negative ion co-exist.
- Healthy for people when Positive ion and Negative ion meet a fix rate.

Anion test : to monitor anions in the distance from samples for 2cm, take three consecutive measurements
Instrument : COM-3010PRO

Position	Result			AVE	UNIT
	Take 1	Take 2	Take 3		
Blank	3	0	0	1	ions/c.c
Sample	1673	1760	1733	1722	ions/c.c

Wall paper, carpet

- Multi-functional, anti-fungi, anti-microbial, negative ion emission
- Long term!!!
- Smoke-free fire proof grade is available



Cost effective alternative – emulsion paint anti-microbial additive

- long term anti-fungi, anti-microbial
- Compatible with various type of water-borne paints
- 1:25 dilution rate, less effect on original color
- Anti-microbial performance :
 - A: blank , instant test
 - B: blank , after 24hrs
 - C: **with Top Nano's additive , after 24hrs**



Germ: Pseudomonas aerations (AATCC 9027)

	CFU/g	Log	Rate of increase	Bactereostatic activity value	Antimicrobial activity value
A	1.2×10^5	5.08			
B	1.2×10^8	8.08	3.0	6.78	3.78
C	<20	<1.3			

Anti-fungi, anti-microbial grout

- Long term
- Prevent fungi to grow between gaps of mosaic, tiles, marbels, etc.
- Low color shade formulation is available



Test Method : JIS Z2911

Germ type : Aspergillus Niger ATCC 9642

Observation	Rating
No fungi found on sample surface	0
Very little fungi on sample surface (area between 1/10 ~ 1/3)	1
Little fungi on sample surface (area over 1/3)	2

Result

0

Anti-microbial PVC floor tile

- Nano silver composites
- Anti-abrasion (achieve 8mg, certified by B. M.S.I. Taiwan)
- Anti-microbial performance:



R

E. Coli JIS Z2801

7.34

Staphylococcus aureus JIS Z2801

3.71

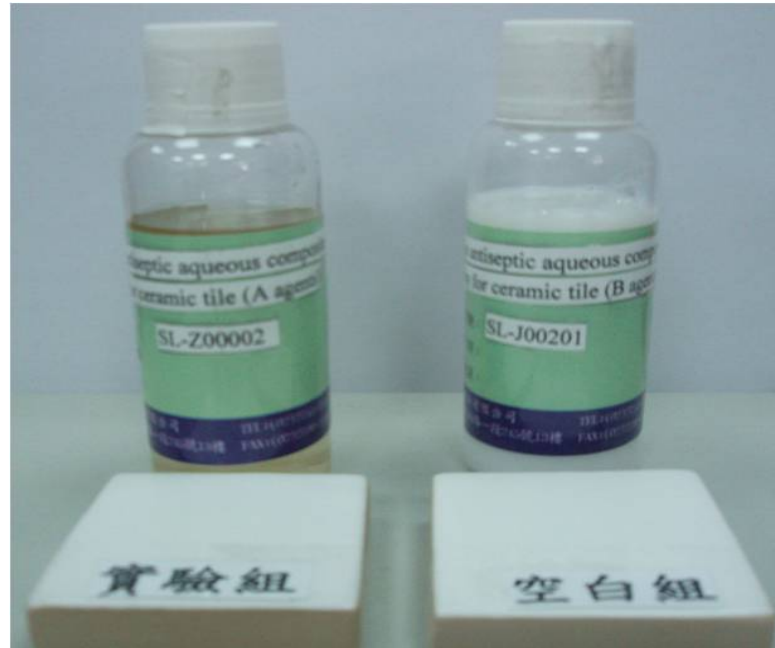
Trichophyton mentagrophytes JIS Z2801

4.3

Klebsiella pneumoniae JIS Z2801

6.85

Nano Anti-Bacterial Tile

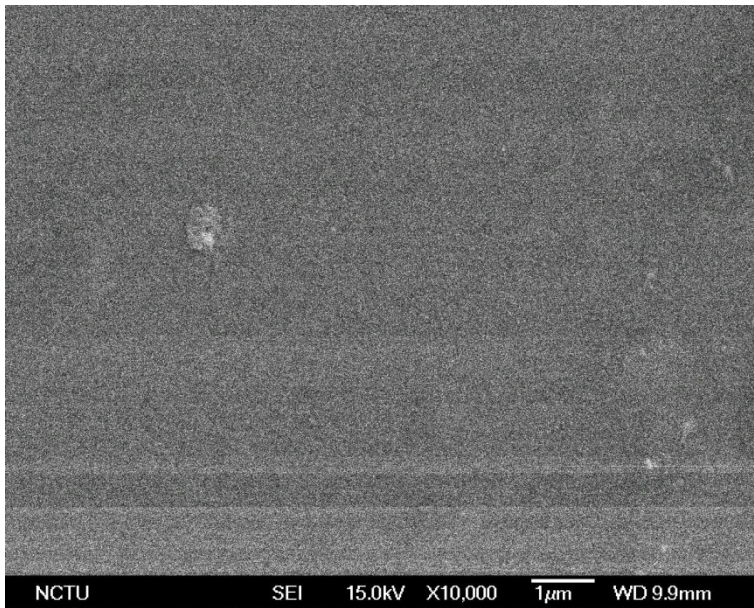


Test Method: JIS Z 2801

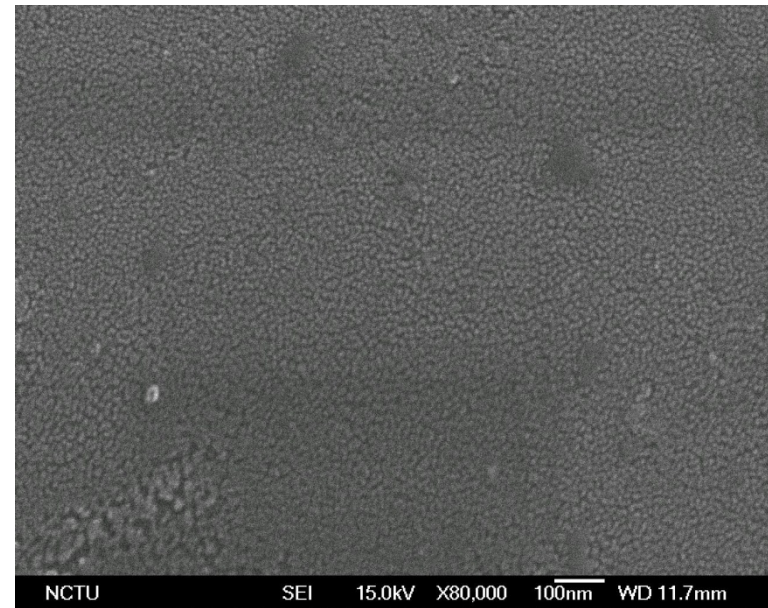
Test Result:

TEST BACTERIA		<i>Escherichia coli</i> ATCC8739		
TREATMENT	CFU/ml	LOG	R	
A	4.1×10^5	5.61	5.88	
B	7.6×10^6	6.88		
C	< 10	< 1		

Nano Anti-Bacterial Tile SEM



Blank



Test

Air filtration unit

- Nano silver, negative ions
 - Anti-microbial, anti-fungi, odor-removing
- usages:
 - Air condition filter, air purifying set filter, etc.



Test report of Nano-Air Filter

TEST ITEM		TESTING RESULT		TESTING METHOD
		cotton	Flocked Fabric	
Staphylococcus aureus TCC 6538P	CSB	1.0E+5	1.0E+5	JIS L1092 : 2002 Quantitative test Absorption method
	Ma	2.0E+4	---	
	Mb	1.3E+7	---	
	Mc	--	<20	
	BG	2.8	--	
	BS	--	5.8	
	BC	---	3.0	

TEST ITEM			TESTING RESULT		TESTING METHOD
			Blank	Flocked Fabric	
NH ₃ Deodorizing	0hr	Initial Concentration (ppm)	100	100	Detector Tube (Note 1)
	1hr	Residual Concentration (ppm)	100	32	
		Deodorizing Rate (%)	--	68	

Test report of Nano-Air Filter

Checking item	Checking position	Checking time	Interval (minutes)	Value (unit)	Checking Method
Fungi in the air	10 cm (without filter)	11 : 42		100 CFU/m ³	NIEA E401.11C
	10 cm (with filter)	13 : 15	30 min	30 CFU/m ³	
		15 : 00	120 min	30 CFU/m ³	
Bacteria in the air	10 cm (without filter)	11 : 59		217 CFU/m ³	NIEA E301.11C
	10 cm (with filter)	13 : 22	30 min	30 CFU/m ³	
		15 : 07	120 min	< 1 CFU/m ³	
Checking item	Checking position	Checking time	Interval (minutes)	Value (unit)	Checking Method
Fungi in the air	1m (without filter)	11 : 05		67 CFU/m ³	NIEA E401.11C
	1m (with filter)	13 : 31	30 min	20 CFU/m ³	
		15 : 16	120 min	30 CFU/m ³	
Bacteria in the air	1m (without filter)	11 : 20		217 CFU/m ³	NIEA E301.11C
	1m (with filter)	13 : 38	30 min	160 CFU/m ³	
		15 : 24	120 min	20 CFU/m ³	

Walk with nano

Nano shoe sole

Anti-microbial, less odor

- Media – nano silver composites
- Achieve better performance with negative ion
- Anti-slip
- Anti-microbial, anti-fungi
- Less odor





Nano Anti-bacteria/Anti-fungi/ Deodorization Shoe Pad

Test Requested & Method:

AATCC 30 :

Aspergillus niger (ATCC NO. 6275)

Penicillium citrinum (ATCC NO. 10509)

Chaetomium globosum ATCC NO. 6205

Test Results:

SAMPLE	OBSERVED GROWTH ON SPECIMEN
	NO GROWTH

Nano Anti-Bacterial/Mold Mask



Test Requested & Method:

AATCC 100

ANTIBACTERIAL FINISHES ON TEXTILE MATERIALS

TEST BACTERIA: *Klebsiella pneumoniae* ATCC 4352

Test Results:

Klebsiella pneumoniae ATCC 4352

Testing Item	Counts at 0 Hour	Counts at 24 Hours	Reduction (%)
	(CFU/diameter 4.8cm x 6 pieces)	(CFU/diameter 4.8cm x 6 pieces)	
Test	3.1×10^5	0	> 99.999
Control	3.1×10^5	2.7×10^7	



Top Nano's corporate culture

Advanced Technology

Innovations

Top nano's Product Catalog

Grading	Form	Number	English brand name	Purpose
Functional composite powder	01.Powder	SP-NZ0201	Nano negative-ion/ZnO composite powder	Anionic /Antimicrobial
		SP-NZ0202	Nano negative-ion/ZnO composite powder	Anionic /Antimicrobial
		SP-SZ0201	Nano ZnO(st)/SiO ₂ composite powder	Toughening
		TP-971004	Nano MWNT/ZnO-ST(N) composite powder	Conductive/Antistatic
		TP-980101	Nano ZnO-SiO ₂ /MWNT composite powder	Conductive/Antistatic
Nano precious metal	01.Powder	SP-A00601	Nano Ag powder	Conductive/Antistatic
		SP-B00101	Nano Pt powder	Catalyst
		SP-G00101	Nano Au powder	Catalyst
		SP-P00101	Nano Pd powder	Catalyst
		SP-R00101	Nano Ru powder	Catalyst
	02.Solution	SL-A00001	Nano Ag aqueous transparent dispersion	Antimicrobial
		SL-A00002	Nano Ag aqueous transparent dispersion	Antimicrobial
		SL-G00901	Nano Au aqueous dispersing liquid	Catalyst

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Terminal product	01. Building Materials	DB-ANZ201	Nano negative-ion anti-fungi, anti-microbial wall paper	Antimicrobial
		DB-AEZ201	Nano anti-fungi, anti-microbial grout	Antimicrobial
	02.Paint	SE-AEY201	Nano anti-microbial, anti-fungi building additive	Antimicrobial
		SE-ANX201	Nano negative-ion anti-microbial, anti-fungi emulsion paint	Anionic /Antimicrobial
		SE-ANX202	Nano negative-ion anti-microbial, anti-fungi cement paint	Anionic /Antimicrobial
		DN-CSZ101	Conductive paint (acrylic based)	Conductive/Antistatic
	03.Pot	SK-A00301	Nano Tea Pot	Catalyst
		SK-A00302	Nano Tea Pot	Catalyst
		SK-G00301	Nano flagon	Catalyst
	04Spray	SL-Z00001	Nano photocatalyst anti-fungi and anti-bacteria spray	Antimicrobial-Eucalyptus
		SG-A00001	Nano silver spray	Antimicrobial
		SG-AU0001	Nano silver spray	Antimicrobial-Eucalyptus
		SG-AU0002	Nano silver spray	Antimicrobial-Lavender
	05. Paste	VE-971205	Thermal control paste	Thermal Control
	06.Silicon film	DN-BW0202	Nano-PT/FIR Silicon Film	Health Care
	07.Cream	DN-BW0201	Nano-PT/FIR Cream	Health Care
	08. Air Filter	DN-AZN201	Nano Antibacterial, Antifungal, and Deodorization Air Filter	Anionic /Antimicrobial
	09.Water Filter	DN-AZC101	Nano Silver/Zinc Oxide Active Carbon Water Filter	Antimicrobial

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Common metallic oxides	01.Powder	SP-F00801	Nano Fe ₃ O ₄ powder	Magnetic
		SP-CF0101	Nano Fe ₃ O ₄ /C powder	Magnetic
		SP-CF0102	Nano Fe ₃ O ₄ / 4C powder	Magnetic
		CP-FQ0801	Nano Fe ₃ O ₄ / Ni powder	Conductive/Magnetic
		SP-Z00201	Nano ZnO-ST composite powder	Antimicrobial
		SP-Z00203	Nano ZnO-ST(N) composite powder	Antimicrobial
		SP-Z00205	Nano ZnO-ST(Sf) composite powder	Antimicrobial
		SP-Z00206	Nano ZnO-ST(Sf) composite powder	Antimicrobial
		TP-980104	Nano thermal conduction composite powder	Thermal Control
	02.Solution	SL-Z00002	Nano ZnO-st aqueous transparent dispersion	Antimicrobial
		SL-Z00001	Nano ZnO-st aqueous transparent dispersion	Antimicrobial
		SL-Z00004	Nano ZnO-st(sf) aqueous transparent dispersion	Antimicrobial
		SL-Z00003	Nano ZnO-st(N) aqueous transparent dispersion	Antimicrobial
Precious metal composite materials	01.Powder	SP-AE0801	Nano Ag/nanoclay composite powder	Antimicrobial
		SP-AZ0803	Nano Ag/ZnO-ST(Sf) composite powder	Electrode
		SP-AEZ201	Nano Ag/ZnO-ST composite powder	Antimicrobial
		SP-PZ0101	Nano Pd/ZnO-ST(Sf) composite powder	Catalyst
		SP-BS0201	Nano Pt/SiO ₂ composite powder	Catalyst
		SP-AC0101	Nano Ag/active carbon composite powder	Antimicrobial
	02.Solution	SL-AJ0301	Nano Ag aqueous PU finishing	Antimicrobial
		SL-AJZ202	Nano anti-microbial and anti-Fungi Water-Borne Composite Enriched Solution	Antimicrobial
		SL-AZ0002	Nano Ag/ZnO anti-microbial and anti-Fungi Enriched Solution	Antimicrobial
		SL-J00201	Nano antiseptic aqueous composite spray for ceramic tile (B agents)	Antimicrobial
		TL-980302	Nano Gold Hydrophiliccomposite Spray and Impregnation Liquid	Catalyst
		TL-980506	Fisheries Antibacterial Concentrate	Antimicrobial
		TL-980508	Vegetables Antibacterial Concentrate	Antimicrobial



**Thank you for your
attention**

Q & A