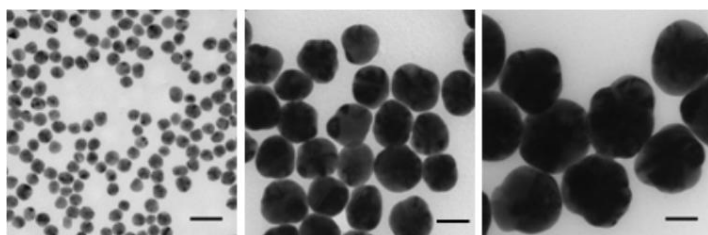


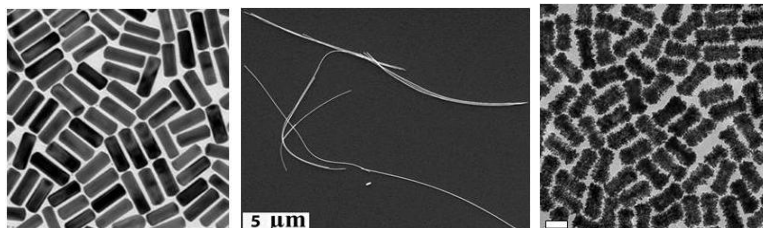
●ナノ粒子(単成分)

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Ag	484059	Silver	nanopowder	<150 nm	99% trace metals basis	5G
Ag	576832	Silver	nanopowder	<100 nm	99.5% trace metals basis	5G
Ag	730785	Silver	dispersion, 0.02 mg/mL in aqueous buffer	10±4 nm (TEM)		25ML
Ag	730793	Silver	dispersion, 0.02 mg/mL in aqueous buffer	20±4 nm (TEM)		25ML
Ag	730807	Silver	dispersion, 0.02 mg/mL in aqueous buffer	40±4 nm (TEM)		25ML
Ag	730815	Silver	dispersion, 0.02 mg/mL in aqueous buffer	60±4 nm (TEM)		25ML
Ag	730777	Silver	dispersion, 0.02 mg/mL in aqueous buffer	100±7 nm (TEM)		25ML
Ag	675318	Silver	dispersion, 0.25 mM in H ₂ O, contains citrate as stabilizer	~157 nm		5ML
Ag	719048	Silver (SunTronic Silver)	dispersion, 20 wt.% in organic solvents	<150 nm (DLS)		5ML, 25ML
Ag	735825	Silver	conductive paste, 70-80% solids	(microparticles),	curing temperature: 120-150 °C/30 min	25G
Ag	736503	Silver NEW!	dispersion, 50-60 wt. % in tetradecane	<10 nm	for printing on polyimide films	25G, 100G
Ag	736511	Silver NEW!	dispersion, 50-60 wt. % in tetradecane	<10 nm	for printing on ITO and glass	25G, 100G
Ag	736465	Silver NEW!	dispersion, 30-35 wt. % in triethylene glycol monomethyl ether	<50 nm	for printing on plastic films	25G, 100G
Ag	736473	Silver NEW!	dispersion, 30-35 wt. % in triethylene glycol monomethyl ether	<50 nm	for printing on ITO films	25G, 100G
Ag	739448	Silver nanowires NEW!	0.5% in isopropanol (suspension)	diam. x L 115 nm x 30 μm		25ML
Ag	739421	Silver nanowires NEW!	0.5% in isopropanol (suspension)	diam. x L 60 nm x 10 μm		25ML
Ag	667838	Dodecanethiol functionalized silver nanoparticles	0.25 % (w/v) in hexane	5-15 nm (DLS)		25ML
Ag	673633	Decanethiol functionalized silver nanoparticles	0.1 % (w/v) in hexane	3-7 nm (DLS)		25ML
Al	544833	Aluminum oxide	nanopowder	<50 nm (TEM)		10G, 50G
Al	551643	Aluminum oxide	nanopowder, whiskers	diam. x L: 2-4 nm x 2800 nm		10G, 50G
Al	718475	Aluminum oxide (Aeroxide Alu C)	nanopowder	13 nm (average)	99.8% trace metals basis	100G
Al	642991	Aluminum oxide	dispersion, 10 wt. % in H ₂ O	<50 nm (TEM)		100ML
Al	702129	Aluminum oxide	dispersion, 20 wt. % in isopropanol	<50 nm (DLS)		100G, 500G
Al	593044	Aluminum nitride	nanopowder	<100 nm	≥98.5%	10G, 50G



左から直径 20 nm (730793)、60 nm (730815)、100 nm (730777) の銀ナノ粒子

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Au	636347	Gold	nanopowder	<100 nm	99.9% trace metals basis	1G
Au	741949	Gold NEW!	stabilized suspension in citrate buffer	~5 nm		25ML, 100ML
Au	741957	Gold NEW!	stabilized suspension in citrate buffer	~10 nm		25ML, 100ML
Au	741965	Gold NEW!	stabilized suspension in citrate buffer	~20 nm		25ML, 100ML
Au	741973	Gold NEW!	stabilized suspension in citrate buffer	~30 nm		25ML, 100ML
Au	741981	Gold NEW!	stabilized suspension in citrate buffer	~40 nm		25ML, 100ML
Au	742007	Gold NEW!	stabilized suspension in citrate buffer	~50 nm		25ML, 100ML
Au	742015	Gold NEW!	stabilized suspension in citrate buffer	~60 nm		25ML, 100ML
Au	742023	Gold NEW!	stabilized suspension in citrate buffer	~80 nm		25ML, 100ML
Au	742031	Gold NEW!	stabilized suspension in citrate buffer	~100 nm		25ML, 100ML
Au	742058	Gold NEW!	stabilized suspension in citrate buffer	~150 nm		25ML, 100ML
Au	742066	Gold NEW!	stabilized suspension in citrate buffer	~200 nm		25ML, 100ML
Au	742074	Gold NEW!	stabilized suspension in citrate buffer	~250 nm		25ML, 100ML
Au	742082	Gold NEW!	stabilized suspension in citrate buffer	~300 nm		25ML
Au	742090	Gold NEW!	stabilized suspension in citrate buffer	~400 nm		25ML
Au	753610	Gold NEW!	stabilized suspension in 0.1 mM PBS	~20 nm	reactant free	25ML, 100ML
Au	753629	Gold NEW!	stabilized suspension in 0.1 mM PBS	~30 nm	reactant free	25ML, 100ML
Au	753637	Gold NEW!	stabilized suspension in 0.1 mM PBS	~40 nm	reactant free	25ML, 100ML
Au	753645	Gold NEW!	stabilized suspension in 0.1 mM PBS	~50 nm	reactant free	25ML, 100ML
Au	753653	Gold NEW!	stabilized suspension in 0.1 mM PBS	~60 nm	reactant free	25ML, 100ML
Au	753661	Gold NEW!	stabilized suspension in 0.1 mM PBS	~80 nm	reactant free	25ML, 100ML
Au	753688	Gold NEW!	stabilized suspension in 0.1 mM PBS	~100 nm	reactant free	25ML, 100ML
Au	660426	Octanethiol functionalized gold nanoparticles	2 % (w/v) in toluene	2-4 nm (DLS)		5ML
Au	660434	Dodecanethiol functionalized gold nanoparticles	2 % (w/v) in toluene	3-5 nm (TEM)		5ML
Au	687863	(11-Mercaptoundecyl) tetra-(ethylene glycol) functionalized gold nanoparticles	2 % (w/v) in H ₂ O			5ML
Au	694169	1-Mercapto-(triethylene glycol) methyl ether functionalized gold nanoparticles	2 % (w/v) in absolute ethanol			5ML
Au	716812	Gold nanorods	colloidal suspension, 35 µg/mL in H ₂ O	10 nm diameter	absorption/780 nm	25ML
Au	716820	Gold nanorods	colloidal suspension, 36 µg/mL in H ₂ O	10 nm diameter	absorption/808 nm	25ML
Au	716839	Gold nanorods	colloidal suspension, 35 µg/mL in H ₂ O	10 nm diameter	absorption/850 nm	25ML
Au	716847	Gold nanorods	colloidal suspension, 171 µg/mL in H ₂ O	25 nm diameter	absorption/550 nm	25ML
Au	716855	Gold nanorods	colloidal suspension, 235 µg/mL in H ₂ O	25 nm diameter	absorption/600 nm	25ML
Au	716863	Gold nanorods	colloidal suspension, 150 µg/mL in H ₂ O	25 nm diameter	absorption/650 nm	25ML
Au	716871	Gold nanorods, amine terminated	colloidal suspension, 1.8 mg/mL in H ₂ O	10 nm diameter	absorption/808 nm	1ML

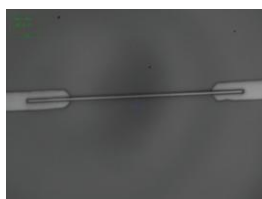


左から金ナノロッド(10nm x 40nm、**716820**)、金ナノワイヤ(**716952** など)、白金被覆金ナノロッド(**716936**)

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Au	716898	Gold nanorods, carboxyl terminated	colloidal suspension, 1.8 mg/mL in H ₂ O	10 nm diameter	absorption/808 nm	1ML
Au	716901	Gold nanorods, methyl terminated	colloidal suspension, 1.8 mg/mL in H ₂ O	10 nm diameter	absorption/808 nm	1ML
Au	716928	Gold nanorods, palladium coated	colloidal suspension, 38.5 µg/mL Pd in H ₂ O, 50 µg/mL Au in H ₂ O	25 nm diameter, 73 nm (long)		10ML
Au	716936	Gold nanorods, platinum coated	colloidal suspension, 100 µg/mL in H ₂ O	25 nm diameter		10ML
Au	716944	Gold nanowires	dispersion, 60 µg/mL in H ₂ O	diam. x L 30 nm x 4500 nm		10ML
Au	716952	Gold nanowires	dispersion, 50 µg/mL in H ₂ O	diam. x L 30 nm x 6000 nm		10ML
Au	716960	Gold microrods	colloidal suspension, 50 µg/mL in H ₂ O	diam. x L 200 nm x 1000 nm		10ML
Bi	637017	Bismuth(III) oxide	nanopowder	90-210 nm	99.8% trace metals basis	25G, 100G, 250G
C	633100	Carbon	nanopowder	<50 nm (TEM)	≥99% trace metals basis	25G, 100G
C	636398	Graphite, nanofibers		O.D. x I.D. x L 80-200 nm x 0.5-10 nm x 0.5-20 µm	carbon content, >95% trace metals analysis	2G, 10G, 50G
C	698830	Graphite, platelet nanofibers		D x L 50-250 nm x 0.5-5 µm	98% carbon basis	1G
C	719781	Carbon nanofibers, graphitized (iron-free)		D x L 100 nm x 20-200 µm	>99.9% carbon basis	25G
C	719803	Carbon nanofibers, graphitized, platelets (conical)		D x L 100 nm x 20-200 µm	>98% carbon basis	25G
C	719811	Carbon nanofibers, pyrolytically stripped		D x L 100 nm x 20-200 µm	>98% carbon basis	25G
C	636428	Diamond	nanopowder	<10 nm (TEM)	≥97% trace metals basis	1G, 5G
C	636444	Diamond	nanopowder	<10 nm (TEM)	≥95% trace metals basis	1G, 5G
Ca	634182	Calcium oxide	nanopowder	<160 nm (BET)	98%	25G, 100G
Ca	693871	Calcium phosphate, amorphous	nanopowder	<150 nm (BET)		5G
Ca	693898	Tricalcium phosphate hydrate	nanopowder	<200 nm (BET)		5G
Ce	544841	Cerium(IV) oxide	nanopowder	<25 nm (BET)		5G, 25G
Ce	700290	Cerium(IV) oxide	nanopowder	<50 nm (BET)	>99.95% trace metals basis	25G, 100G
Ce	643009	Cerium(IV) oxide	dispersion, 10 wt. % in H ₂ O	<25 nm		100ML, 250ML
Ce	729191	Cerium(IV) oxide, praseodymium doped	nanopowder	<100 nm	Ce _{0.8} Pr _{0.2} O ₂	10G
Ce	572403	Cerium(IV) oxide-calcium doped	nanopowder	<100 nm	10 mol % calcium as dopant	25G
Ce	572330	Cerium(IV) oxide-gadolinium doped	nanopowder	<100 nm	10 mol % gadolinium as dopant	25G
Ce	572357	Cerium(IV) oxide-gadolinium doped	nanopowder	<100 nm	20 mol % gadolinium as dopant	25G
Ce	572365	Cerium(IV) oxide-samarium doped	nanopowder	<100 nm	15 mol % samaria as dopant	25G
Co	697745	Cobalt, Carbon coated (magnetic)	nanopowder	<50 nm (TEM)	≥99%	500MG
Co	637025	Cobalt(II, III) oxide	nanopowder	<50 nm	99.8% trace metals basis	25G, 100G, 250G
Cr	634239	Chromium(III) oxide	nanopowder	<100 nm (TEM)	99% trace metals basis	25G, 100G
Cu	678945	Copper(I) oxide, nanospheres	dispersion, 1.5 % (w/v) in ethanol	<350 nm		25ML
Cu	544868	Copper(II) oxide	nanopowder	<50 nm		5G, 25G
Dy	637289	Dysprosium(III) oxide	nanopowder	<100 nm (BET)	≥99.9% trace metals basis	25G

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Dy	639664	Dysprosium(III) oxide	dispersion, 5 wt. % in H ₂ O	<100 nm (BET)	≥99.9% trace metals basis	25ML
Er	637343	Erbium(III) oxide	nanopowder	<100 nm (BET)	≥99.9% trace metals basis	10G, 50G
Er	641839	Erbium(III) oxide	dispersion, 5 wt. % in H ₂ O	<100 nm (BET)		100ML
Eu	634298	Europium(III) oxide	nanopowder	<150 nm (TEM)	99.5% trace metals basis	25G
Fe	637106	Iron(II, III) oxide	nanopowder	<50 nm (TEM)	≥98% trace metals basis	25G, 100G, 250G
Fe	544884	Iron(III) oxide	nanopowder	<50 nm		5G, 25G
Fe	720704	Iron oxide	dispersion, 20 wt. % in H ₂ O	<100 nm (DLS) <30 nm (APS)		100G
Fe	720712	Iron oxide	dispersion, 20 wt. % in EtOH	<110 nm (DLS) <30 nm (APS)		100G
Fe	700304	Iron oxide, magnetic nanoparticles solution	5 mg/mL in toluene	15 nm (average)		5ML
Fe	700312	Iron oxide, magnetic nanoparticles solution	5 mg/mL in toluene	10 nm (average)		5ML
Fe	700320	Iron oxide, magnetic nanoparticles solution	5 mg/mL in toluene	5 nm (average)		5ML
Fe	725331	Iron oxide, magnetic nanoparticles solution	5 mg/mL in H ₂ O	4-6 nm (TEM)		5ML
Fe	725358	Iron oxide, magnetic nanoparticles solution	5 mg/mL in H ₂ O	9-11 nm (TEM)		5ML
Fe	725366	Iron oxide, magnetic nanoparticles solution	5 mg/mL in H ₂ O	18-22 nm (TEM)		5ML
Gd	637335	Gadolinium(III) oxide	nanopowder	<100 nm (BET)	99.8% trace metals basis	10G, 50G
Ho	637327	Holmium(III) oxide	nanopowder	<100 nm (BET)	≥99.9% trace metals basis	10G, 50G
Ho	641863	Holmium(III) oxide	dispersion, 5 wt. % in H ₂ O	<100 nm (BET)	≥99.9% trace metals basis	25ML
In	632317	Indium(III) oxide	nanopowder	<100 nm (BET)	99.9% trace metals basis	5G, 25G
In	637157	Indium(III) hydroxide	nanopowder	<50 nm	99.99% trace metals basis	25G
La	634271	Lanthanum(III) oxide	nanopowder	<100 nm (TEM)	99% trace metals basis	25G
Mg	549649	Magnesium oxide	nanopowder	<50 nm (BET)		5G, 25G
Mg	632309	Magnesium hydroxide	nanopowder	<100 nm (laser PSA)	99.8% trace metals basis	25G, 100G
Mo	577987	Molybdenum	nanopowder	<100 nm (BET)	99.8% trace metals basis	5G
Nd	634611	Neodymium(III) oxide	nanopowder	<100 nm (BET)	99.9% trace metals basis	5G, 50G
Ni	577995	Nickel	nanopowder	<100 nm	99.9% trace metals basis	5G
Ni	637130	Nickel(II) oxide	nanopowder	<50 nm (BET)	99.8% trace metals basis	25G, 100G, 250G
Pd	686468	Palladium	nanopowder	<25 nm (TEM)	99.9%	500MG
Pt	685453	Platinum	nanopowder	<50 nm (TEM)	≥99.9%	250MG
Sb	637173	Antimony(III) oxide	nanopowder	<250 nm (TEM)	≥99.9% trace metals basis	25G, 100G, 250G

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Si	633097	Silicon	nanopowder	<100 nm (TEM)	≥98% trace metals basis	10G, 25G
Si	730874	Silicon nanowires	Monodispersed, P-I-P doped, 1 x 10 ⁶ wires/mL	diam. x L 150±30 nm x 20±2 μm	> 99% (Silicon-basis)	1ML
Si	730866	Silicon nanowires	Monodispersed, undoped, 1 x 10 ⁶ wires/mL	diam. x L 150±30 nm x 20±2 μm	> 99% (Silicon-basis)	1ML
Si	731498	Silicon nanowires	Polydispersed, undoped	diam. x L 150±40 nm x 1-20 μm	>99%	250MG
Si	594911	Silicon carbide	nanopowder	<100 nm		100G, 250G
Si	634581	Silicon nitride	nanopowder	<50 nm (BET)	≥98% trace metals basis	5G
Si	636703	Silicon nitride	nanopowder	<50 nm (spherical)	≥98.5% trace metals basis	25G, 100G
Si	637238	Silica	nanopowder	10-20 nm (TEM)	99.5% trace metals basis	50G, 250G, 500G
Si	637246	Silicon dioxide	nanopowder (spherical, porous)	5-15 nm (TEM)	99.5% trace metals basis	50G, 250G, 500G
Si	718483	Silica	nanopowder	12 nm (average)	99.8% trace metals basis	100G
Si	701491	Silicon dioxide, alumina doped	nanoparticles, 20 wt. % in H ₂ O	<50 nm	99.99% trace metals basis	25ML, 100ML
Si	660442	3-Aminopropyl functionalized silica	dispersion, 3 % (w/v) in ethanol	~100 nm (DLS)		25ML
Si	660450	3-Aminopropyl(3-oxobutanoic acid) functionalized silica	dispersion, 2.5 % (w/v) in DMF	~15 nm (DLS)		25ML
Sm	637319	Samarium(III) oxide	nanopowder	<100 nm (BET)	≥99% trace metals basis	10G
Sm	641855	Samarium(III) oxide	dispersion, 5 wt. % in H ₂ O	<100 nm (BET)		100ML
Sn	576883	Tin	nanopowder	<150 nm (TEM)	≥99% trace metals basis	5G
Sn	549657	Tin(IV) oxide	nanopowder	<100 nm (BET)		5G, 25G
Ta	593486	Tantalum	nanopowder	<25 nm (BET)	≥99% trace metals basis	5G
Tb	634255	Terbium(III, IV) oxide	nanopowder	<100 nm (BET)	99.5% trace metals basis	25G
Ti	677469	Titanium(IV) oxide	nanopowder	<100 nm (BET)	≥97%	5G
Ti	718467	Titanium(IV) oxide (Aeroxide P25)	nanopowder	約 21 nm	99.5+% trace metals basis	100G
Ti	637254	Titanium(IV) oxide, anatase	nanopowder	<25 nm	99.7% trace metals basis	50G, 100G, 500G
Ti	637262	Titanium(IV) oxide, rutile	nanopowder	<100 nm	99.5% trace metals basis	25G, 100G, 500G
Ti	634662	Titanium(IV) oxide, mixture of rutile and anatase	nanopowder	<100 nm (BET)	99.5% trace metals basis	25G, 100G
Ti	700339	Titanium(IV) oxide, mixture of rutile and anatase	dispersion, 45-47 wt. % in xylene	<100 nm (DLS)	99.9% trace metals basis	100G
Ti	700347	Titanium(IV) oxide, mixture of rutile and anatase	dispersion, 33-37 wt. % in H ₂ O	<150 nm (DLS)	99.9% trace metals basis	25G, 100G
Ti	700355	Titanium(IV) oxide, mixture of rutile and anatase	paste, 53-57 wt. % in diethylene glycol monobutyl ether/ethylene glycol	<250 nm (DLS)	99.9% trace metals basis	25G
Ti	636967	Titanium carbide	nanopowder	<200 nm (TEM)	95%	25G, 250G
Ti	636959	Titanium carbonitride	nanopowder	<150 nm (spherical)	≥97% trace metals basis	25G, 100G



Si ナノワイヤーを用いた電極

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Ti	636940	Titanium carbonitride (7:3)	nanopowder	<150 nm	≥97% trace metals basis	25G
W	550086	Tungsten(VI) oxide	nanopowder	<100 nm (TEM)		5G, 25G
Y	544892	Yttrium(III) oxide	nanopowder	<50 nm		25G
Y	702048	Yttrium(III) oxide	dispersion, 10 wt. % in isopropanol	<100 nm (DLS)	≥99.9% trace metals basis	100G
Yb	637300	Ytterbium(III) oxide	nanopowder	<100 nm (BET)	≥99.7% trace metals basis	10G
Yb	641928	Ytterbium(III) oxide	dispersion, 5 wt % in H ₂ O	<80 nm (BET)	≥99.9% trace metals basis	25ML
Zn	578002	Zinc	nanopowder	<50 nm	≥99% trace metals basis	5G
Zn	677450	Zinc oxide	nanopowder, 6% Al as dopant	<50 nm (BET)	>97%	5G
Zn	544906	Zinc oxide	nanopowder	<100 nm		10G, 50G
Zn	721085	Zinc oxide	dispersion, 40 wt. % in ethanol	<35 nm (APS)		100G
Zn	721077	Zinc oxide	dispersion, 50 wt. % in H ₂ O	<35 nm (APS)		100G
Zn	721093	Zinc oxide	dispersion, 40 wt. % in butyl acetate	<35 nm (APS)		100G
Zn	721107	Zinc oxide	dispersion, 40 wt. % in butyl glycol	<35 nm (APS)		100G
Zr	544760	Zirconium(IV) oxide	nanopowder	<100 nm (TEM)		5G, 25G
Zr	643122	Zirconium(IV) oxide	dispersion, 5 wt. % in H ₂ O	<100 nm (BET)		100ML, 500ML
Zr	643025	Zirconium(IV) oxide	dispersion, 10 wt. % in H ₂ O	<100 nm (BET)		100ML
Zr	544779	Zirconium(IV) oxide-yttria stabilized	nanopowder	<100 nm (BET)		25G
Zr	572322	Zirconium(IV) oxide-yttria stabilized	nanopowder, 3% yttria	<100 nm		25G
Zr	572349	Zirconium(IV) oxide-yttria stabilized	nanopowder, 8% yttria	<100 nm		25G

●ナノ粒子(多成分)

元素	製品番号	化合物名	外観	化学式	形状	純度、その他	容量
Al-Ti	634131	Aluminum titanate	nanopowder		<25 nm (BET)	98.5% trace metals basis	20G, 100G
Al-Ce	637866	Aluminum cerium oxide	nanopowder	AlCeO ₃	<50 nm (BET)	99% trace metals basis	10G, 50G
Ba-Fe	637602	Barium ferrite	nanopowder	BaFe ₁₂ O ₁₉	<100 nm (BET)	>97% trace metals basis	25G
Ba-Sr-Ti	633828	Barium strontium titanium oxide	nanopowder	(BaTiO ₃) (SrTiO ₃)	<100 nm	>99 wt. % trace metals basis (Ba, Sr and Ti)	25G, 100G
Ba-Ti	467634	Barium titanate(IV)	nanopowder (cubic crystalline phase)	BaTiO ₃	<100 nm (BET)	≥99% trace metals basis	25G, 100G
Ba-Zr	631884	Barium zirconate	nanopowder	BaZrO ₃	<50 nm	98.5% trace metals basis	25G
Bi-Co-Zn	631930	Bismuth cobalt zinc oxide	nanopowder	(Bi ₂ O ₃) _{0.07} (CoO) _{0.03} (ZnO) _{0.90}	<100 nm (BET)	99.9% trace metals basis	5G, 25G
Ca-Ti	633801	Calcium titanate	nanopowder	CaTiO ₃	<100 nm (BET)	99.9% trace metals basis	25G
Ca-Zr	631965	Calcium zirconate	nanopowder	CaZrO ₃	<50 nm (BET)	99.7% trace metals basis	25G
Ca	693863	Hydroxyapatite, synthetic	Nanopowder, 5 wt. % silica as dopant	[Ca ₅ (OH)(PO ₄) ₃] _x	<200 nm (BET)		5G
Ca	677418	Hydroxyapatite, synthetic	Nanopowder	[Ca ₅ (OH)(PO ₄) ₃] _x	<200 nm (BET)	≥97%	5G, 10G, 25G
Ca	702153	Hydroxyapatite	dispersion, 10 wt. % in H ₂ O	[Ca ₅ (OH)(PO ₄) ₃] _x	<200 nm (TEM)		25ML

元素	製品番号	化合物名	外観	化学式	形状	純度、その他	容量
Ce-Zr	634174	Cerium(IV)-zirconium(IV) oxide	nanopowder	(CeO ₂)·(ZrO ₂)	<50 nm (BET)	99.0% trace metals basis	25G, 100G
Co-Al	633631	Cobalt aluminum oxide	nanopowder	Al ₂ CoO ₄	<50 nm	≥99.9% trace metals basis	25G
Cu-Zn-Fe	641650	Copper zinc iron oxide	nanopowder	CuZnFe ₄ O ₄	<100 nm (BET)	98.5% trace metals basis	10G, 50G
Cu-Fe	641723	Copper iron oxide	nanopowder	CuFe ₂ O ₄	<100 nm (BET)	98.5% trace metals basis	10G
Fe-Ni	637149	Iron nickel oxide	nanopowder	Fe ₂ NiO ₄	<50 nm	≥98% trace metals basis	25G, 100G
In-Sn	544876	Indium tin oxide	nanopowder	In ₂ O ₃ , 90% SnO ₂ , 10%	<50 nm		5G, 25G
In-Sn	700460	Indium tin oxide	dispersion, 30 wt. % in isopropanol	In ₂ O ₃ , 90% SnO ₂ , 10%	<100 nm (DLS)		25G, 100G
La-Ni	729175	Lanthanum nickelate	nanopowder	La ₂ NiO ₄	<100 nm (BET)		10G
La-Ni	729183	Lanthanum nickelate, strontium doped	nanopowder	La _{1.6} Sr _{0.4} NiO ₄	<100 nm (BET)		10G
Li-Ti	702277	Lithium titanate, spinel	nanopowder	Li ₄ Ti ₅ O ₁₂	<100 nm (BET)	>99%	25G
Mg-Al	677396	Magnesium aluminate, spinel	nanopowder	MgAl ₂ O ₄	<50 nm (BET)		5G
Ni-Co	634360	Nickel cobalt oxide	nanopowder	(NiO) (CoO)	<150 nm (BET)	99% trace metals basis	25G
Ni-Zn-Fe	641669	Nickel zinc iron oxide	nanopowder	NiZnFe ₄ O ₄	<100 nm (BET)	≥99% trace metals basis	10G, 50G
Sb-Sn	549541	Antimony tin oxide	nanopowder	Sb ₂ O ₃ , 7-11% SnO ₂ , 89-93%	<50 nm	≥99.5% trace metals basis	5G, 25G
Sm-Sr-Co	677442	Samarium strontium cobalt oxide	nanopowder		<50 nm (BET)	99.9%	5G
Sr-Ti	517011	Strontium titanate	nanopowder	SrTiO ₃	<100 nm	≥99.5% trace metals basis	50G
Sr-Fe	633836	Strontium ferrite	nanopowder	SrFe ₁₂ O ₁₉	<100 nm (BET)	99.8% trace metals basis	5G
Ti-Si	641731	Titanium silicon oxide	nanopowder	Amorphous mixture of SiO ₂ and TiO ₂ .	<50 nm (BET)	99.8% trace metals basis	10G, 50G
Y-Al	634638	Yttrium aluminum oxide	nanopowder	Y ₃ Al ₅ O ₁₂	<150 nm (TEM)	99% trace metals basis	25G
Y-Fe	634417	Yttrium iron oxide	nanopowder	Y ₃ Fe ₅ O ₁₂	<100 nm (BET)	99.9% trace metals basis	10G
Zn-Fe	633844	Zinc iron oxide	nanopowder	ZnFe ₂ O ₄	<100 nm (BET)	>99% trace metals basis	10G, 50G

●ナノ粒子(合金)

元素	製品番号	化合物名	外観	形状	純度、その他	容量
Ag-Cu	576824	Silver-copper alloy	nanopowder	<100 nm	~2.5% Cu	5G
Ag-Sn	677434	Silver-tin alloy	nanopowder	<150 nm	3.5% Ag basis, ≥97%	5G
Cu-Zn	593583	Copper-zinc alloy	nanopowder	<150 nm (TEM)	56-60% Cu basis, 37-41% Zn basis	5G
Fe-Ni	677426	Iron-nickel alloy	nanopowder	<100 nm (BET)	≥97% Fe/Ni (0.55:0.45)	5G
Ni-Cr etc.	593370	Hastelloy C276	nanopowder	<150 nm (TEM)		5G

●メソポーラスカーボン

その他のメソポーラス製品については、Material Matters 4-1「ナノ材料とその合成方法」をご覧ください。

メソポーラスカーボン製品一覧

製品番号	製品名	概要	容量
699632	Carbon Nanopowder, Mesoporous, > 99.95% trace metal basis	64 Å average pore diameter. 150-250 m ² /g specific surface area. <500 nm particle size (DLS)	5G, 25G
699624	Carbon Nanopowder, Mesoporous, Graphitized, > 99.95% trace metal basis	137 Å average pore diameter 50-100 m ² /g specific surface area. <500 nm particle size (DLS)	5G, 25G
699640	Carbon, Mesoporous, > 99.95% trace metal basis	100±10 Å average pore diameter 150-250 m ² /g specific surface area. Particle size 45 µm ± 5	5G, 25G
702110	Carbon, Mesoporous, hydrophilic pore surface, Starbon® 300	mesopore surface area ≥130 m ² /g > 0.4 cm ³ /g mesoporosity C/O Ratio: > 3.1 > 300 m ² /g (BET) specific surface area.	5G
702102	Carbon, Mesoporous, hydrophilic pore surface, Starbon® 800	0 - 0.2 cm ³ /g microporosity 0.4-0.7 cm ³ /g mesoporosity C/O Ratio: 8.3 - 8.9 150 - 500 m ² /g (BET) specific surface area.	5G

Starbon® is a registered trademark of the University of York.

●ナノクレイ

モンモリロナイトナノクレイ —Nanomer®—

Nanocor 社製モンモリロナイトナノクレイ Nanomer®は、疎水性ポリマーと混和できるように、表面をアルキルアンモニウムカチオンで置換してあります。Nanomer® Iシリーズの5つのクレイは、それぞれ表面に結合したカチオンの化学的性質が異なります。Nanoclay Nanomer® PGVのカチオン性クレイ層は親水性で、水性ポリマーに分散させることができます。ナノ複合材料の特性は、ナノ複合材料の作製方法だけでなく、有機カチオンとポリマー鎖の化学的性質に大きく依存します。ナノクレイ製品の詳細は弊社 [日本語 Web サイト](#) をご参考下さい。

製品番号	製品名	用途	改善特性
682608-500G	Nanoclay Nanomer® I.28E	Epoxy (anhydride-cured)	硬化速度の向上、弾性率および耐薬品性の改善
682616-500G	Nanoclay Nanomer® I.30E	Epoxy (amine-cured), polyurethane	硬化速度の向上、弾性率および耐薬品性の改善
682624-500G	Nanoclay Nanomer® I.44P	Polypropylene, polyethylene, ethylene vinyl acetate	モジュラスの向上、ガス透過性の減少、耐燃性および耐薬品性の改善
682632-500G	Nanoclay Nanomer® I.31PS	Same as I.44P	I.44Pと同様。ただし、さらに高温に应用可能
682640-500G	Nanoclay Nanomer® I.34TCN	Polyamides (Nylon 6, Nylon 66)	弾性率の向上、ガス透過性の減少、耐燃性および耐薬品性の改善
682659-500G	Nanoclay, Nanomer® PGV	Hydrophilic polymers (e.g. polyvinyl alcohol)	加工性および耐薬品性の改善

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Material Matters Vol.4 No.1 「ナノ材料とその合成方法」

- ・火炎中の化学 — 酸化物から無機塩および金属のナノ粒子まで—
- ・制御された構造形態を持つ貴金属ナノ構造体
- ・単分散磁性ナノ粒子の化学合成
- ・Starbon®: ナノ構造メソポーラス材料の作製
- ・単層カーボンナノチューブの製造、特性評価および利用法 (CoMoCAT 法)

Material Matters Vol.5 No.2 「ナノ材料」

- ・ZnO 凝集体の合成とその色素増感太陽電池への応用
- ・リチウムイオン電池に用いられるエネルギー貯蔵用ナノ材料
- ・ペロブスカイト型金属酸化物ナノ構造体: 合成、特性、および応用

Material Matters Vol.5 No.3 「生物医学用材料」

- ・ナノ材料の毒性スクリーニング方法

材料科学の基礎 第5号 「ナノ粒子測定法」

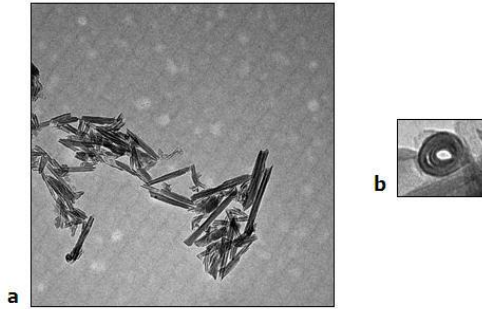
- ・粒度分布測定法、比表面積・細孔分子測定法



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●ハロイサイトナノチューブ

$\text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4 \cdot 2\text{H}_2\text{O}$ は、多くの場合サブミクロンの大きさの中空管状構造を持つ2層のアルミノケイ酸塩で、化学的にはカオリンに似ています。隣り合ったアルミナとシリカの層およびそれらの水和水は、無秩序な結晶構造のために湾曲して多層チューブを形成します。ハロイサイトは、その鉱床から原鉱石を採掘可能で、経済的観点からも実用的な物質です。多くの天然物質と同様に、ハロイサイト粒子の大きさは鉱床によってさまざまに変動します(長さ1~15 μm 、内径10~150 nm)。ハロイサイトナノチューブの詳細は弊社 [日本語 Web サイト](#) をご参考下さい。



a 直径 50 nm のハロイサイトナノチューブ(685445)の TEM 写真、b チューブの断面

form	nanopowder
diam. × L	30 nm × 0.25 – 4 μm , nanotube
color	75 - 96, Hunter Brightness
pore size	1.26 - 1.34 mL/g pore volume
surface area	64 m ² /g
capacity	8.0 meq/g cation exchange capacity
製品番号	685445-100G, 500G

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