

電池材料カタログ

リチウムイオン電池

ナトリウムイオン電池

燃料電池

導電性ポリマー材料

ナノセルロース材料

窒化ホウ素ナノチューブ

カーボン材料

金属ナノ粒子



会社案内

フィルジェン株式会社

会社概要

会社名	フィルジェン株式会社 (Filgen, Inc.)		
設立日	2004年12月13日 (創業: 2002年4月24日)		
資本金	4000万円		
決算期	10月31日		
代表取締役社長	米田 英克		
所在地	【本社】〒459-8011 愛知県名古屋市緑区定納山一丁目1409番地		
事業内容	➢ 理化学研究機器の設計・製造・販売 ➢ 各種バイオサイエンス受託解析	➢ 研究用試薬・機器・消耗品の輸入販売 ➢ バイオインフォマティクスソフトウェアの輸入販売	
主要取引銀行	➢ 愛知銀行 鳴海支店 ➢ 岡崎信用金庫 大高支店 ➢ 名古屋銀行 鳴海支店	➢ 三井住友銀行 上前津支店 ➢ 三菱UFJ銀行 岡崎駅前支店	
業務認可登録	➢ 毒物劇物一般販売業登録 (登録番号: 名毒劇第374号) ➢ 毒物劇物輸入業登録 (登録番号: 東海第10142号) ➢ 麻薬等原料輸入業者業務届 (受理証明番号: 愛知第51-188号)		
主要納入先	➢ 国公立・私立大学の研究施設 ➢ 国公立・私立大学病院 ➢ 独立行政法人研究機関	➢ 官公庁研究機関 ➢ 民間企業の研究所 ➢ 民間企業の生産工場・品質管理部門	



各種SNS

フィルジェンの公式SNSで製品情報を発信しています！

新製品の販売開始情報やキャンペーン情報などをご確認いただけます。
製品のアプリケーション情報や取り扱い方法を動画でわかりやすく説明しています。

X (旧Twitter)



Facebook



Linkedin



Youtube



メールニュース配信中

メールニュースも配信しています！

フィルジェンでは、サービスや製品などのコンテンツを、毎月数回配信しています。工学、材料化学、理工学などの研究分野に関する製品情報をお届けしています。

(主な配信コンテンツ)

ナノサイエンスに関連する、試薬・材料、機器の新製品情報、キャンペーン情報 など



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リチウムイオン電池 (ナトリウムイオン電池)

◆ 正極活物質

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	NMC Ni82	PO0191	Single Crystal High Nickel NMC Ni82 Cathode Powder	500g	$\text{LiNi}_{0.82}\text{Mn}_{0.07}\text{Co}_{0.11}\text{O}_2$ D50: 3.0 - 5.0 μm
MSE Supplies	NMC Ni90	PO5025	Single Crystal High Nickel NMC Ni90 Cathode Powder	500g	$\text{LiNi}_{0.9}\text{Mn}_{0.05}\text{Co}_{0.05}\text{O}_2$ D50: 4.0 +/- 1.0 μm
MSE Supplies	NMC 811 LiNbO ₃ -coated	PO0185	Ampcera® LiNbO ₃ coated NMC 811 Cathode Powder	10g	D50: 11 - 15 μm Lithium Niobium Oxide (LiNbO ₃): 1 wt%
MSE Supplies	NMC 811	PO5038	NMC 811 Cathode Powder	500g	D50: 10.0 +/- 2.0 μm Tap density: >= 2.1 g/cm ³
MSE Supplies	NMC 622 LiNbO ₃ -coated	PO0212	Ampcera® LiNbO ₃ coated NMC 622 Cathode Powder	10g	D50: 10 - 14 μm Lithium Niobium Oxide (LiNbO ₃): 1 wt%
MSE Supplies	NMC 622	PO0113	NMC 622 Cathode Powder	500g	D50: 10 - 14 μm Tap density: >= 2.0 g/cm ³
MSE Supplies	NMC 631 LiNbO ₃ -coated	PO0226	Ampcera® LiNbO ₃ coated Single Crystal NMC 631 Cathode Powder	10g	D50: 3.3 - 4.5 μm Lithium Niobium Oxide (LiNbO ₃): 1.5 wt%
MSE Supplies	NMC 631	PO5031	Single Crystal NMC 631 Cathode Powder	500g	D50: 3.3 - 4.5 μm Tap density: >= 1.8 g/cm ³
MSE Supplies	NMC 532 LiNbO ₃ -coated	PO0224	Ampcera® LiNbO ₃ coated NMC 532 Cathode Powder	10g	D50: 10 - 14 μm Lithium Niobium Oxide (LiNbO ₃): 1 wt%
MSE Supplies	NMC 532	PO0110	NMC 532 Cathode Powder	500g	D50: 10 - 14 μm Pressed density: ~ 2.3 g/cm ³
MSE Supplies	NMC 532	PO0192	Single Crystal NMC 532 Cathode Powder	500g	D50: 4.0 - 8.0 μm Tap density: >= 1.6 g/cm ³
MSE Supplies	NMC 532	BR0194	Single Side NMC 532 Coated Aluminum Foil	5sheets /pack	260mm x 230mm x 60 μm Coating density: 10.8 mg/cm ²
MSE Supplies	NMC 532	BR0195	Double Sides NMC 532 Coated Aluminum Foil	5sheets /pack	260mm x 230mm x 103 μm Coating density: 21.6 mg/cm ²
MSE Supplies	NMC 424	PO0109	NMC 424 Cathode Powder	500g	D50: 8.0 - 12.0 μm Pressed density: >= 2.3 g/cm ³
MSE Supplies	NMC 111	PO0111	NMC 111 Cathode Powder	500g	D50: 7.5 +/- 2.5 μm Tap density: >= 2.3 g/cm ³
MSE Supplies	NMC 111	PO5009	Lithium-Rich NMC 111 Cathode Powder	500g	$\text{Li}_{1.08\sim 1.12}\text{Ni}_{0.33}\text{Mn}_{0.33}\text{Co}_{0.33}\text{O}_2$ D50: 9 - 12 μm
MSE Supplies	NCA	PO5002	High Nickel NCA Cathode Powder	500g	$\text{LiNi}_{0.88}\text{Co}_{0.09}\text{Al}_{0.03}\text{O}_2$ D50: 12 +/- 1.5 μm
MSE Supplies	NCA	PO0180	NCA Cathode Powder	500g	$\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ D50: 12 +/- 1.5 μm
MSE Supplies	LNMO	PO0189	$\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ Spinel Cathode Powder	250g	D50: 3 - 6 μm Tap density: 1.3 g/cm ³
MSE Supplies	LMO	PO0126	LiMn_2O_4 Spinel Cathode Powder	500g	D50: 11 - 17 μm Tap density: 2.0 - 2.4 g/cm ³

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	LMFP	PO5026	LMFP (LiMn _{0.6} Fe _{0.4} PO ₄) Cathode Powder	500g	D50: 1.0 - 2.0 um, Carbon coating: 1.5 - 2.5%
MSE Supplies	LMFP	PO5040	LMFP (LiMn _{0.7} Fe _{0.3} PO ₄) Cathode Powder	500g	D50: 0.8 - 1.0 um, Carbon coating: 1.4 - 2.0%
MSE Supplies	LFP	PO0127	LiFePO ₄ Cathode Powder	500g	D50: 1.5 um Tap density: 0.8 +/- 0.2 g/cm ³
MSE Supplies	LFP	BR0187	Single Side LiFePO ₄ Coated Aluminum Foil	5sheets /pack	260mm x 230mm x 90um Coating density: 14 mg/cm ²
MSE Supplies	LFP	BR0188	Double Sides LiFePO ₄ Coated Aluminum Foil	5sheets /pack	260mm x 230mm x 143um Coating density (for one side): 16 mg/cm ²
MSE Supplies	LCO	PO0129	LiCoO ₂ Cathode Powder	500g	D50: 5 - 7 um Tap density: 1.8 g/cm ³
MSE Supplies	LCO	PO5001	High Voltage, High Capacity LiCoO ₂ Cathode Powder	500g	D50: 14.0 - 18.0 um Tap density: >= 2.4 g/cm ³
MSE Supplies	LCO	BR0189	Single Side LiCoO ₂ Coated Aluminum Foil	5sheets /pack	241mm x 200mm x 66um Coating density: 12 mg/cm ²
MSE Supplies	LCO	BR0193	Double Sides LiCoO ₂ Coated Aluminum Foil	5sheets /pack	241mm x 200mm x 100um Coating density: 24 mg/cm ²
MSE Supplies	NMCOH811	PO5034	NMCOH811 Precursor Powder	200g	Nickel Manganese Cobalt Hydroxide D50: 11 +/- 1 um
MSE Supplies	BiF ₃	CM4014	Bismuth (III) Fluoride Powder	25g	Synonym: Trifluorobismuthine Purity: >99.99%
MSE Supplies	BiF ₃	CM4015	Bismuth (III) Fluoride Powder	100g	Synonym: Trifluorobismuthine Purity: >99.99%
MSE Supplies	C ₆ O ₆ ·8H ₂ O	CM1016	Hexaketocyclohexane Octahydrate	5g	Synonym: Cyclohexanehexone octahydrate Purity: 99.3%
MSE Supplies	C ₆ O ₆ ·8H ₂ O	CM1017	Hexaketocyclohexane Octahydrate	25g	Synonym: Cyclohexanehexone octahydrate Purity: 99.3%
MSE Supplies	NaFePO ₄	PO0220	Sodium Iron Phosphate Powder	50g	Particle Size: <= 3 um Carbon Content: 3%
MSE Supplies	NaMnPO ₄	PO0221	Sodium Manganese Phosphate Powder	50g	Particle Size: <= 3 um Carbon Content: 3%
MSE Supplies	Na _{0.44} MnO ₂	PO0222	Sodium Manganese Oxide Powder	50g	Particle Size: 3 um Purity: >= 99.9%
MSE Supplies	Na _{2/3} (Fe _{1/2} Mn _{1/2})O ₂	PO5028	Na _{2/3} (Fe _{1/2} Mn _{1/2})O ₂ Powder	100g	Purity: >= 99.9% (3N) Particle Size: ≤ 3 um
MSE Supplies	NaNi _{0.5} Mn _{1.5} O ₄	PO5042	Sodium Nickel Manganese Oxide Powder	50g	Particle Size: <= 3 um Purity: >= 99.9%
MSE Supplies	Na ₃ V ₂ (PO ₄) ₃	PO5032	Sodium Vanadium Phosphate Powder	10g	D50: 20 +/-1 um Carbon Content: 3%
MSE Supplies	Na ₂ Fe ₂ (CN) ₆	PO5037	Prussian Blue Powder	1g	D50: 19.9 um BET Specific Surface Area: 23.8 m ² /g
MSE Supplies	Na ₂ MnFe(CN) ₆	PO5045	Prussian White Powder	10g	D50: 13.2 um BET Specific Surface Area: <= 25 m ² /g

◆ 負極活物質、導電助剤

メーカー	マテリアル	品番	製品名	容量	仕様
ACS Material	Si/Carbon	BASCA011 BASCA021	Si/C Composite Anode Material, Type A	10g 100g	Si Content: ~8 wt% D50: 15.9 um
ACS Material	Si/Carbon	BASCB011 BASCB021	Si/C Composite Anode Material, Type B	10g 100g	Si Content: ~18 wt% D50: 15.7 um
ACS Material	Si	BASIB001 BASIB005	Silicon nanoparticles, Type B: 15nm	1g 5g	APS: 15 nm BET Surface Area: ~80 m ² /g
ACS Material	Si	BASIC001 BASIC005	Silicon nanoparticles, Type C: 30nm	1g 5g	APS: 30 nm BET Surface Area: ~42.4 m ² /g
ACS Material	SiO	BASO0012	Silicon Monoxide, powder, ave: 400nm	20g	APS: 400 nm Purity: > 99.99%
MSE Supplies	Si/SiOx/Carbon	PO5014	High Capacity Silicon Based Anode Powder	100g	D50: 5.0 +/- 1.0 um Tap density: 0.8 +/- 0.1 g/cm ³
MSE Supplies	Si/Carbon	PO0197	SiOx/C Composite Silicon Based Anode Powder	500g	D50: 13.0 - 17.0 um Tap density: 0.9 - 1.1 g/cm ³
MSE Supplies	LTO	PO0196	High Performance Spherical Li ₄ Ti ₅ O ₁₂ Anode Powder	500g	D50: 5.0 - 10.0 um Tap density: >= 0.7 g/cm ³
MSE Supplies	LTO	PO0124	Li ₄ Ti ₅ O ₁₂ Anode Powder with Carbon Coating	500g	D50: 0.7 - 1.6 um Carbon content: 3 - 5 wt%
MSE Supplies	Carbon	BR0315	Single Side Conductive Carbon Coated Copper Foil	2 kg/roll	260 mm wide 11 um thick Coating: TIMCAL Super P + KS6 Graphite
MSE Supplies	Carbon	BR0127	Double Sides Conductive Carbon Coated Copper Foil	1 kg/roll	260 mm wide 11 um thick Coating: TIMCAL Super P + KS6 Graphite
MSE Supplies	Carbon	BR0133	Conductive Acetylene Black Nano Powder	50g	Particle Size: 35 - 40 nm Resistivity: <= 1.8 Ω/m
MSE Supplies	Carbon	PO0198	High Specific Surface Area Activated Carbon	50g	D50: ~ 5.9 um BET Specific Surface Area: 1670 m ² /g
MSE Supplies	Carbon	PO5013	TIMCAL SUPER C45 Carbon Black Conductive Additive	50g	BET specific surface area: 45 m ² /g Adsorption stiffness value: 36 ml/5g
MSE Supplies	Carbon	PO0713	TIMCAL SUPER C65 Nano Carbon Black Conductive Additive	50g	BET specific surface area: 62 m ² /g Adsorption stiffness value: 32 ml/5g
MSE Supplies	Carbon	BR0121	TIMCAL Super P Conductive Carbon Black	50g	BET specific surface area: 62 m ² /g Adsorption stiffness value: 32 ml/5g
MSE Supplies	Carbon	PO0199	Hard Carbon Powder for Lithium and Sodium Ion Battery Anode	100g	D50: 8.0 - 12.0 um Tap density: 0.68 - 0.88 g/cm ³
MSE Supplies	Graphite	BR0185	Single Side Conductive Graphite Coated Copper Foil	5sheets/ pack	260mm x 230mm x 65um Coating density: 7.28 mg/cm ²
MSE Supplies	Graphite	BR0186	Double Sides Conductive Graphite Coated Copper Foil	5sheets/ pack	260mm x 230mm x 110um Coating density: 14.56 mg/cm ²
MSE Supplies	Graphite	PO5008	TIMCAL TIMREX® KS6 Conductive Synthetic Graphite	100g	D50: 3.4 um Density (Scott): 0.106 g/cm ³
MSE Supplies	Graphite	PO5036	TIMCAL Timrex® BNB90 Conductive Expanded Graphite	100g	D50: 38.5 um Density (Scott): 0.044 g/cm ³
MSE Supplies	Graphite	PO5039	High Energy Density Artificial Graphite Powder	500g	D50: ~11.8 um Tap density: 0.774 g/cm ³

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	Graphite	PO0195	High Performance Artificial Graphite Powder	500g	D50: 15.5 - 19.5 um Tap density: 0.75 - 0.95 g/cm ³
MSE Supplies	Graphite	PO0120	MCMB Mesocarbon Microbeads Synthetic Graphite Powder	500g	D50: 9 - 14 um Tap density: ~ 1.25 g/cm ³
MSE Supplies	Graphite	PO0125	Natural Graphite Powder for Lithium Ion Battery Anode	500g	D50: 17 - 19 um Tap density: ~ 1.1 g/cm ³
MSE Supplies	Graphene	PO0726	High Specific Surface Area Graphene Powder	1g	Particle size: < 63 um Specific surface area: ~ 800 m ² /g
BeDimensional	Graphene	-	G-LEAF 09900	100g~	Siアノードへの添加剤に最適。 詳細は22ページをご参照ください。
MSE Supplies	Carbon Nanotube	-	Carbon Nanotube Powder	1g~	仕様例（ラインアップはお問合せください） ・Single walled, Double walled, Multi walled ・Graphitized, Hydroxylated, Carboxylated, Aminated, Nickel Coated ・Open Tube Ends

◆ 電解質塩、添加剤

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	LiBF ₄	PO5015	Battery Grade Lithium tetrafluoroborate	50g	Purity: >= 99.5% CAS#: 14283-07-9
MSE Supplies	Li ₃ PO ₄	PO5020	Battery Grade Lithium Phosphate	500g	Purity: >= 99.5% CAS#: 10377-52-3
MSE Supplies	LiPF ₆	BR0138	Lithium Hexafluorophosphate for Battery Research	50g	Purity: >= 99.9% (trace metals basis) CAS#: 21324-40-3
MSE Supplies	LiTFSI	PO5007	Battery Grade Lithium Bis-trifluoromethanesulfonimide	50g	Purity: >= 99.5% CAS#: 90076-65-6
MSE Supplies	LiFSI	CM1020	Lithium Bis(fluorosulfonyl)imide for Battery Research	50g	Purity: > 99.9% CAS#: 171611-11-3
MSE Supplies	LiDFBOP (LiDFBP)	PO5027	Lithium difluoro(bisoxalato) phosphate for Battery Research	50g	Purity: >= 99.5% CAS#: 678966-16-0
MSE Supplies	LiDFOB	PO5011	Lithium difluoro(oxalato)borate for Battery Research	50g	Purity: >= 99.9% CAS#: 409071-16-5
MSE Supplies	LiDFP	CM1022 CM1023	Lithium Difluorophosphate for Battery Research	50g 100g	Purity: > 99% CAS#: 24389-25-1
MSE Supplies	TEABF ₆	PO5043 PO5044	Tetraethylammonium Tetrafluoroborate for Battery	50g 250g	Assay Purity: >= 99% CAS#: 429-06-1
MSE Supplies	Zn(OTf) ₂	PO5012	Battery Grade Zinc Trifluoromethanesulfonate	50g	Purity: >= 99% CAS#: 54010-75-2
MSE Supplies	NaPF ₆	CM1050 CM1035	Sodium Hexafluorophosphate for Sodium Ion Battery	50g 250g	Purity: > 99.9% CAS#: 21324-39-0
MSE Supplies	NaTFSI	CM1029	Sodium bis (trifluoromethyl sulfonyl) imide	5g	Purity: 99% CAS#: 91742-21-1
MSE Supplies	NaFSI	CM1057	Sodium bis (fluoro sulfonyl) imide for Battery Research	5g	Purity: 99% CAS#: 100669-96-3
MSE Supplies	NaDFP	CM1068	Sodium Difluorophosphate for Sodium Ion Battery	50g	Purity: >= 99.5% CAS#: 15587-24-3

◆ 固体電解質

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	LPS	PO0119	Ampcera® Li ₇ P ₃ S ₁₁ Powder	10g	70Li ₂ S-30P ₂ S ₅ (mol%), typically 1 - 5 um
MSE Supplies	LPS Lil-Doped	PO0132	Ampcera® Lil-doped Li ₃ P ₃ S ₄ Powder	10g	75Li ₂ S-25P ₂ S ₅ (mol%) Lil-doped, typically 5 - 10 um
MSE Supplies	LPSBr	PO0183	Ampcera® Argyrodite Li ₆ PS ₅ Br Fine Powder	10g	325 mesh (D50: < 10 um) Ionic Conductivity: up to > 2 mS/cm at r.t.
MSE Supplies	LPSCI	PO0123	Ampcera® Argyrodite Li ₆ PS ₅ Cl Coarse Powder	10g	150 mesh (< 100 um) Ionic Conductivity: up to > 3 mS/cm at r.t.
MSE Supplies	LPSCI	PO0167	Ampcera® Argyrodite Li ₆ PS ₅ Cl Fine Powder	10g	325 mesh (D50: < 10 um) Ionic Conductivity: ~ 2 mS/cm at r.t.
MSE Supplies	LPSCI	PO0200	Ampcera® Argyrodite Li ₆ PS ₅ Cl Ultra Fine Powder	10g	325 mesh (D50: < 1 um) Ionic Conductivity: ~ 2 mS/cm at r.t.
MSE Supplies	LPSClBr	PO0184	Ampcera® Argyrodite Li ₆ PS ₅ Cl _{0.5} Br _{0.5} Fine Powder	10g	325 mesh (D50: < 10 um) Ionic Conductivity: up to > 3.5 mS/cm at r.t.
MSE Supplies	Li ₂ S-P ₂ S ₅ -SiS ₂	PO0139	Ampcera® Halide-Free Argyrodite Type SS7 Coarse Powder	10g	150 mesh (< 100 um) Ionic Conductivity: up to > 4 mS/cm at r.t.
MSE Supplies	Li ₂ S-P ₂ S ₅ -SiS ₂	PO0137	Ampcera® Halide-Free Argyrodite Type SS7 Fine Powder	10g	D50: < 10 um Ionic Conductivity: up to > 2 mS/cm at r.t.
MSE Supplies	Li ₂ S-P ₂ S ₅ -SiS ₂	PO5010	Ampcera® Halide-Free Argyrodite Type SS7 Ultra Fine Powder	10g	D50: < 1 um Ionic Conductivity: up to > 2 mS/cm at r.t.
MSE Supplies	LSPS	PO0216	Ampcera® Li ₁₀ SnP ₂ S ₁₂ Ultra Fine Powder	10g	325 mesh (D50: < 10 um) Ionic Conductivity: 1.0 - 3.0 mS/cm at r.t.
MSE Supplies	LGPS	PO0115	Ampcera® Li ₁₀ GeP ₂ S ₁₂ Coarse Powder	10g	150 mesh (< 100 um) Ionic Conductivity: 2 - 5 mS/cm at r.t.
MSE Supplies	LGPS	PO0182	Ampcera® Li ₁₀ GeP ₂ S ₁₂ Fine Powder	10g	325 mesh (D50: ~ 10 um) Ionic Conductivity: 2 - 5 mS/cm at r.t.
MSE Supplies	GeS ₂	PO2001	Germanium Disulfide Powder	10g 50g	Purity: > 99.99% (trace metal basis) CAS#: 12025-34-2
MSE Supplies	SiS ₂	PO3710 PO3711	Silicon Disulfide Powder	5g 25g	Purity: 99.999% 5N (trace metal basis) CAS#: 13759-10-9
MSE Supplies	SnS ₂	PO5701	Tin Disulfide Powder	100g	Purity: 99.5% CAS#: 1315-01-1
MSE Supplies	Li ₂ ZrO ₃	PO3312 PO3313	Lithium Zirconate Powder	100g 500g	Purity: 99.5% (2N5) CAS#: 12031-83-3
MSE Supplies	LLZO	PO0168	Ampcera® Li ₇ La ₃ Zr ₂ O ₁₂ Garnet Powder	100g	325 mesh (< 45 um) Phase: Tetragonal phase
MSE Supplies	LLZO Al-Doped	PO0101	Ampcera® Li _{6.25} Al _{0.25} La ₃ Zr ₂ O ₁₂ Garnet Powder	100g	325 mesh (D50: < 10 um) Ionic Conductivity: > 0.5 mS/cm at r.t.
MSE Supplies	LLZO Al-Doped	PO0102	Ampcera® Li _{6.25} Al _{0.25} La ₃ Zr ₂ O ₁₂ Garnet Nano-Powder	100g	D50: 400 - 600 nm Ionic Conductivity: > 0.5 mS/cm at r.t.
MSE Supplies	LLZO Ga-Doped	PO0141	Ampcera® Li _{6.4} Ga _{0.2} La ₃ Zr ₂ O ₁₂ Garnet Nano-Powder	100g	D50: 300 - 500 nm Ionic Conductivity: > 0.5 mS/cm at r.t.

※イオン伝導度は参考値であり、保証値ではございません。

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	LLZO Nb-Doped	PO0103	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Powder	100g	325 mesh (D50: < 10 um) Ionic Conductivity: > 0.5 mS/cm at r.t.
MSE Supplies	LLZO Nb-Doped	PO0206	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Powder	100g	500 mesh (D50: ~ 5 um) Ionic Conductivity: > 0.5 mS/cm at r.t.
MSE Supplies	LLZO Nb-Doped	PO0104	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Nano-Powder	100g	D50: ~ 500 nm Ionic Conductivity: > 0.5 mS/cm at r.t.
MSE Supplies	LLZO Nb-Doped	ME0112	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Membrane	1	14 +/- 1 mm dia. x 0.7 +/- 0.1 mm thick Grain Size: D50 < 5 um
MSE Supplies	LLZO Nb-Doped	FG0021	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Sputtering Target	1	2" dia. x 1/8" thick no Cu backing plate
MSE Supplies	LLZO Nb-Doped	FG0022	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Sputtering Target	1	2" dia. x 1/8" thick with Cu backing plate and In bonding
MSE Supplies	LLZO Nb-Doped	FG0023	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Sputtering Target	1	3" dia. x 1/8" thick no Cu backing plate
MSE Supplies	LLZO Nb-Doped	FG0024	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Sputtering Target	1	3" dia. x 1/8" thick with Cu backing plate and In bonding
MSE Supplies	LLZO Nb-Doped	FG0025	Ampcera® $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Nb}_{0.5}\text{O}_{12}$ Garnet Sputtering Target	1	30 x 30 x 6mm Ionic Conductivity: ~ 1 mS/cm at r.t.
MSE Supplies	LLZO Ta-Doped	PO0131	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Powder	100g	150 mesh (< 100 um) Ionic Conductivity: ~ 1 mS/cm at r.t.
MSE Supplies	LLZO Ta-Doped	PO0105	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Powder	100g	325 mesh (D50: ~ 5 um) Ionic Conductivity: ~ 1 mS/cm at r.t.
MSE Supplies	LLZO Ta-Doped	PO0106	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Nano-Powder	100g	D50: 400 - 600 nm Ionic Conductivity: 0.5 - 1 mS/cm at r.t.
MSE Supplies	LLZO Ta-Doped	FG0006	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	1" dia. X 1/8" thick no Cu backing plate
MSE Supplies	LLZO Ta-Doped	FG0007	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	1" dia. X 1/8" thick with Cu backing plate and In bonding
MSE Supplies	LLZO Ta-Doped	FG0008	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	2" dia. X 1/8" thick no Cu backing plate
MSE Supplies	LLZO Ta-Doped	FG0009	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	2" dia. X 1/8" thick with Cu backing plate and In bonding
MSE Supplies	LLZO Ta-Doped	FG0010	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	3" dia. X 1/8" thick no Cu backing plate
MSE Supplies	LLZO Ta-Doped	FG0011	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Sputtering Target	1	3" dia. X 1/8" thick with Cu backing plate and In bonding
MSE Supplies	LLZO Ta-Doped	ME0111	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Membrane	1	14 +/- 1 mm dia. x 0.7 mm thick Grain Size: D50 < 10 um
MSE Supplies	LLZO Ta-Doped	ME0127	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Membrane	1	14 +/- 1 mm dia. x 0.5 mm thick Grain Size: D50 < 10 um
MSE Supplies	LLZO Ta-Doped	ME0128	Ampcera® $\text{Li}_{6.4}\text{La}_3\text{Zr}_{1.4}\text{Ta}_{0.6}\text{O}_{12}$ Garnet Membrane	1	10 +/- 1 mm dia. x 0.5 mm thick Grain Size: D50 < 10 um
MSE Supplies	LATP	PO0178	Ampcera® $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ LISICON Powder	100g	D50: 600 nm Ionic Conductivity: 0.6 - 0.8 mS/cm at r.t.
MSE Supplies	LATP	PO0179	Ampcera® $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ LISICON Powder	100g	D50: 300 nm Ionic Conductivity: 0.6 - 0.8 mS/cm at r.t.

※イオン伝導度は参考値であり、保証値ではございません。

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	LATP	ME0201	Ampcera® $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ LISICON Membrane	1	12 +/- 0.3 mm dia. x 300 +/- 10 um thick Ionic Conductivity: 0.275 mS/cm at r.t.
MSE Supplies	LAGP	PO0175	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Powder	100g	D50: 300 - 500 nm Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	ME0117	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	19 mm dia. x 200 um thick (CR2032に最適) Ionic Conductivity: 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0012	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	1/2" (12 mm) dia. x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0013	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	16 mm dia. x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0014	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	1" (25.4 mm) dia. x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0015	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	3" (76 mm) dia. x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0016	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	20 mm x 20 mm x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0017	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	40 mm x 40 mm x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0018	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Membrane	1	60 mm x 60 mm x 300 um thick Ionic Conductivity: up to 0.5 mS/cm at r.t.
MSE Supplies	LAGP	FG0019	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Sputtering Target	1	2" dia. x 1/8" thick no Cu backing plate
MSE Supplies	LAGP	FG0020	Ampcera® $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ LISICON Sputtering Target	1	2" dia. x 1/8" thick with Cu backing plate and In bonding
MSE Supplies	Li_3PO_4	FG0001	Ampcera® Li_3PO_4 Sputtering Target for LiPON	1	1.0" dia. x 0.125" thick with Cu backing plate and In bonding
MSE Supplies	Li_3PO_4	FG0002	Ampcera® Li_3PO_4 Sputtering Target for LiPON	1	2.0" dia. x 0.125" thick with Cu backing plate and In bonding
MSE Supplies	Li_3PO_4	FG0003	Ampcera® Li_3PO_4 Sputtering Target for LiPON	1	3.0" dia. x 0.125" thick with Cu backing plate and In bonding
MSE Supplies	Li_3PO_4	FG0004	Ampcera® Li_3PO_4 Sputtering Target for LiPON	1	4.0" dia. x 0.125" thick with Cu backing plate and In bonding
MSE Supplies	Li_3PO_4	FG0005	Ampcera® Li_3PO_4 Sputtering Target for LiPON	1	6.0" dia. x 0.125" thick with Cu backing plate and In bonding
MSE Supplies	PEO/PEG	PO0601	Polyethylene Oxide Powder for Advanced Batteries	250g	Average Mw ~1,000,000 400 - 800 cP, 0.2% in H_2O (25 °C)
MSE Supplies	PEO/PEG	PO0602	Polyethylene Oxide Powder for Advanced Batteries	250g	Average Mw 300,000 - 500,000 600 - 1,200 cP, 5% in H_2O (25 °C)
MSE Supplies	PEO/PEG	PO0604	Polyethylene Oxide Powder for Advanced Batteries	250g	Average Mw ~ 10,000 ~ 20 mesh
MSE Supplies	$\text{Na}_3\text{Zr}_2\text{Si}_2(\text{PO}_4)_3$	PO5016	$\text{Na}_3\text{Zr}_2\text{Si}_2\text{PO}_{12}$ NASICON Powder	50g	pass 325 mesh Ionic conductivity: $2 - 3 \times 10^{-3}$ S/cm at r.t.
MSE Supplies	β'' -alumina	PO0425	Sodium Beta Alumina Powder	100g 1kg	NaAl_5O_8 , $\text{Na}_2\text{O} \cdot 5\text{Al}_2\text{O}_3$ (β'' -alumina) APS: approximately 1 um

※イオン伝導度は参考値であり、保証値ではございません。

◆ バインダー

メーカー	マテリアル	品番	製品名	容量	仕様
MSE Supplies	CMC	BR0132	Battery Grade Carboxymethyl Cellulose Binder	100g	Purity: >= 99.5% Molecular weight: 600,000 Viscosity: 3000 - 4000 mPa.s (1% aqueous solution, 30 rpm, 25 °C)
MSE Supplies	LA133	BR0153	LA133 Aqueous Binder for Battery Research	100g	D50: <= 1.0 um Solid content: 15.0 +/- 0.2% Viscosity: >= 7300 mPa.S (40 °C)
MSE Supplies	PAA	BR0165	Poly(acrylic acid) Aqueous Binder	100g	pH: 6 - 8 Solid content: 10 - 15% Viscosity: >= 50000 mPa.S (25 °C)
MSE Supplies	PAALi	BR0516	Lithium Polyacrylate Aqueous Binder for Battery Research	500g	CAS#: 25656-42-2 Solid content: 6% Viscosity: 24,000 mPa.S
MSE Supplies	PTFE	BR0161	Polytetrafluoroethylene Condensed Liquid Binder	500g	Solid loading: 60 +/- 2% Surfactants: 3 - 4% Kinematic viscosity: 6 mm ² /s (25 °C)
MSE Supplies	PTFE	BR0162	Polytetrafluoroethylene Binder Powder	100g	Particle Size: ~ 480 um Glass Transition Temperature: 326 - 328 °C Apparent Density: ~ 600 g/L
MSE Supplies	PVDF	BR0210	Poly(vinylidene fluoride) Binder	25g	Solvent: N-methyl-2-pyrrolidone Concentration: 5% (w/v) Mw: ~ 1,000,000
MSE Supplies	PVDF	BR0122	Poly(vinylidene fluoride) Binder Powder	100g	Purity: >= 99.6% Density: 1.75 - 1.78 g/cm ³ Mw: ~ 1,000,000
MSE Supplies	PVDF	PO5041	Poly(vinylidene fluoride) Binder Nanopowder	50g	D50: 200 nm Mw: ~ 534,000
MSE Supplies	SBR	BR0128	Styrene-Butadiene Rubber Binder for Li-ion Battery Anode	500g	Solid loading: 50 +/- 2% (water based) Styrene: 23 - 25% Butadiene: 70 - 72% Carboxyl: 5% Viscosity: 100 - 350 mPa. S (NDJ-5S, 25°C)
MSE Supplies	NMP	BR0158	Battery Grade N-Methyl-2-pyrrolidone	500mL	Purity: >= 99.9% (battery grade, anhydrous) Moisture: <= 0.02%
Cellulose Lab	Cellulose	CNF-Slurry-SMC	Cellulose Nanofibrils, prepared by supermass colloidier, 1 - 20% solids in water	10g~	Width: nominal width 30 - 80 nm; Length: up to several hundred micron Surface Group: Hydroxyl [Hydrophilic]
Cellulose Lab	CMC	CNF-CM-Slurry	Carboxymethylated Cellulose Nanofibrils, 0.5 - 3% solids in water	5g~	Width: 10 - 13 nm; Length: 1000 - 3000 nm Surface Group: Carboxymethyl, hydroxyl [Hydrophilic]
Polyey Polymers	導電性ポリマー	EK01 01-0X	POLY(DADMA) ポリオイオン液体	5g~	13ページのラインアップをご覧ください。
Polyey Polymers	導電性ポリマー	EK02 0X	シングルイオン伝導性ポリマー	5g~	14ページのラインアップをご覧ください。
Polyey Polymers	導電性ポリマー	EK03 0X	レドックスポリマー&モノマー	5g~	15ページのラインアップをご覧ください。
Polyey Polymers	導電性ポリマー	EK04 0X	PEDOT/バイオポリマー	1L	16ページのラインアップをご覧ください。

Cellulose Lab社のナノセルロース材料につきましては、17 - 20ページでより詳細にご紹介しています。

固体酸化物形燃料電池

SOFC専門企業であるKceracell社（韓国）の製品を取扱っています。本メーカーは中温型SOFCの研究開発に注力しており、様々な自社開発材料の販売を行っています。カスタム注文やセルの製造にも対応可能です。



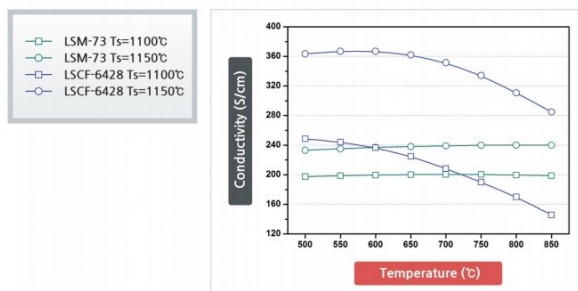
◆ カソード（空気極）

カテゴリー	品名	組成	SSA(m ² /g)
Lanthanum strontium manganite	LSM-73-C/F/N	(La _{0.7} Sr _{0.3}) _{0.95} MnO ₃	C: 1 ~ 5, F: 5 ~ 10, N: 10 ~ 15
	LSM-82-C/F/N	(La _{0.8} Sr _{0.2}) _{0.98} MnO ₃	C: 1 ~ 5, F: 5 ~ 10, N: 10 ~ 15
Lanthanum strontium cobalt ferrite	LSCF-6428-C/F/N	(La _{0.6} Sr _{0.4}) _{0.97} Co _{0.2} Fe _{0.8} O ₃	C: 1 ~ 5, F: 5 ~ 10, N: 10 ~ 15
Lanthanum strontium cobaltite	LSC-64	La _{0.6} Sr _{0.4} CoO ₃	5 ~ 10
Lanthanum strontium ferrite	LSF-82	La _{0.8} Sr _{0.2} FeO ₃	5 ~ 10
Lanthanum nickel ferrite	LNF-64	LaNi _{0.6} Fe _{0.4} O ₃	5 ~ 10
Barium strontium cobalt ferrite	BSCF-5582	Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃	5 ~ 10
Samarium strontium cobaltite	SSC-55	Sm _{0.5} Sr _{0.5} CoO ₃	5 ~ 10
Cathode current collector	CCC-LTS	Non-disclosure	5 ~ 10

◆ アノード（燃料極）

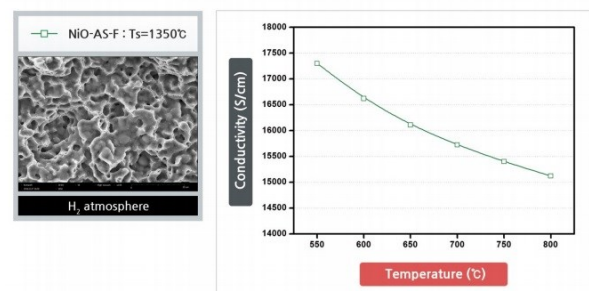
カテゴリー	品名	組成	SSA(m ² /g)
Green nickel oxide	NiO-AFL	NiO	8 ~ 10
	NiO-AS-C/M/F	NiO	C: 1 ~ 3, M: 3 ~ 5, F: 5 ~ 7
Stabilized zirconia	8YSZ-C	(Y ₂ O ₃) _{0.08} (ZrO ₂) _{0.92}	4 ~ 6
	5YSZ-C	(Y ₂ O ₃) _{0.05} (ZrO ₂) _{0.95}	4 ~ 6
	3YSZ-C	(Y ₂ O ₃) _{0.03} (ZrO ₂) _{0.97}	4 ~ 6
Lanthanum strontium titanate	LST	La _{1-x} Sr _x TiO ₃	5 ~ 10
NiO/ YSZ composite powders	NiO/ YSZ-AFL	NiO : 8YSZ = 57 : 43	8 ~ 10
	NiO/ YSZ-AS	NiO : 8YSZ = 60 : 40	5 ~ 7
Spinel powders	NCF	Ni _{0.5} Cu _{0.5} Fe ₂ O ₄	5 ~ 10
	NCC	Ni _{0.5} Cu _{0.5} Co ₂ O ₄	5 ~ 10
Sintered granule for air plasma spray coating	APS-A	All Anode	APS-A

LSM/LSCF conductivity



※ Ts : Sintering temperature

NiO(Ni) conductivity



※ Ts : Sintering temperature

◆ 電解質

カテゴリー	品名	組成	SSA(m ² /g)
Scandia stabilized zirconia	10Sc0.5Ce0.5GdSZ	(Sc ₂ O ₃) _{0.1} (CeO ₂) _{0.005} (Gd ₂ O ₃) _{0.005} (ZrO ₂) _{0.89}	10 ~ 15
	9.5Sc0.5Gd0.5YbSZ	(Sc ₂ O ₃) _{0.095} (Gd ₂ O ₃) _{0.005} (Yb ₂ O ₃) _{0.005} (ZrO ₂) _{0.895}	10 ~ 15
Ytterbia / Scandia stabilized zirconia	6Yb4ScSZ	(Yb ₂ O ₃) _{0.06} (Sc ₂ O ₃) _{0.04} (ZrO ₂) _{0.9}	10 ~ 15
Yttria stabilized zirconia	8YSZ	(Y ₂ O ₃) _{0.08} (ZrO ₂) _{0.92}	10 ~ 15
Gd doped ceria	GDC-10-F/N	Gd _{0.1} Ce _{0.9} O _{1.95}	F: 5 ~ 10, N: 10 ~ 15
	GDC-20-F/N	Gd _{0.2} Ce _{0.8} O _{1.9}	F: 5 ~ 10, N: 10 ~ 15
	GYBC-LTS	Gd _{0.135} Yb _{0.015} Bi _{0.02} Ce _{0.83} O _{1.915}	10 ~ 15
	GDC-LTS	GDC + dopant	10 ~ 15
Sm doped ceria	SDC-20-F/N	Sm _{0.2} Ce _{0.8} O _{1.9}	F: 5 ~ 10, N: 10 ~ 15
	SYBC-LTS	Sm _{0.16} Yb _{0.02} Bi _{0.02} Ce _{0.8} O _{1.9}	10 ~ 15
Lanthanum strontium gallium magnesium oxide	LSGM-9182	La _{0.9} Sr _{0.1} Ga _{0.8} Mg _{0.2} O _{2.85}	3 ~ 6
	LSGM-8282	La _{0.8} Sr _{0.2} Ga _{0.8} Mg _{0.2} O _{2.8}	3 ~ 6
	LSGM-8282-LTS	La _{0.8} Sr _{0.2} Ga _{0.8} Mg _{0.18} Zn _{0.02} O _{2.8}	3 ~ 6
Y doped barium zirconium(cerium) oxide	BZY	BaZr _{1-x} Y _x O ₃	10 ~ 15
	BCY	BaCe _{1-x} Y _x O ₃	10 ~ 15
	BZCY	BaZr _{1-x-y} Ce _x Y _y O ₃	10 ~ 15
Sintered granule for air plasma spray coating	APS-E	All electrolyte	D50 = 20 ~ 40

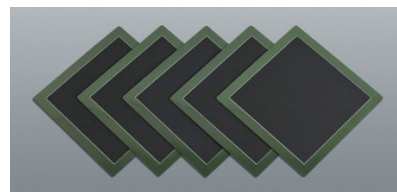
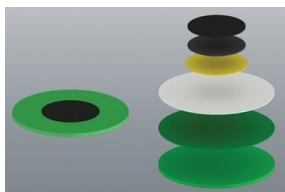
◆ インターコネクト

カテゴリー	品名	組成	SSA(m ² /g)
Spinel	MCF	MnCo _{1.9} Fe _{0.1} O ₄	5 ~ 10
	MC-11	Mn _{1.5} Co _{1.5} O ₄	5 ~ 10
	CMF	CuMn _{1.9} Fe _{0.1} O ₄	5 ~ 10
Lanthanum chromite	LCC	La _{0.7} Ca _{0.3} CrO ₃	5 ~ 10
	LCCC	La _{0.8} Ca _{0.2} Cr _{0.9} Co _{0.1} O ₃	5 ~ 10
Sintered granule for air plasma spray coating	APS-IC	All interconnect	D50 = 20 ~ 40

◆ カスタム可能なSOFCセル

構成部位	組成
カソード側集電体	LSCF 6428-C
カソード (空気極)	LSCF 6428-F / GDC 10-F
中間層	GYBC-LTS
電解質	6Yb4ScSZ
アノード (燃料極)	NiO / 6Yb4ScSZ
アノード支持基板	NiO / YSZ

- アノード、カソード、電解質材料などのカスタムに対応可能
- 特許取得の新素材（6Yb4ScSZ、GYBC）による高出力の実現
- 厚膜電解質とハニカム構造フレームを用いたアノード支持材によるセル強度と酸化還元耐久性の向上



導電性ポリマー材料

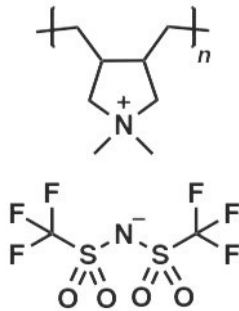
高分子化学を得意とするPolykey Polymers社（スペイン）の製品を取扱っております。ポリオン液体やシングルイオン伝導性ポリマー、レドックスポリマーなどを製造しており、幅広い研究分野での応用が可能です。分子構造や分子量などのカスタム合成にも対応しています。



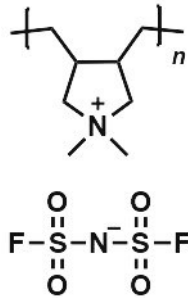
◆ POLY(DADMA) ポリオン液体

様々なカウンターアニオンを備えたPoly(DADMA)を、3種類の平均分子量でご提供可能です。
<100,000 g/mol
200,000 - 350,000 g/mol
400,000 - 500,000 g/mol

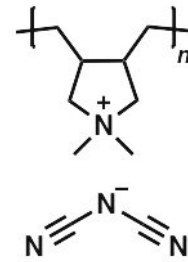
用途：ポリマー電解質、高電圧LiBのカソードに適したバインダー



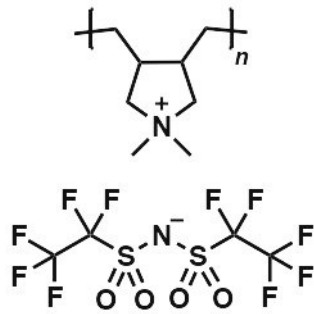
EK01 01-01



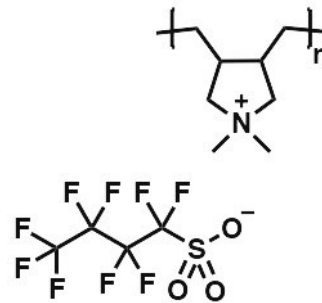
EK01 01-02



EK01 01-03



EK01 01-04



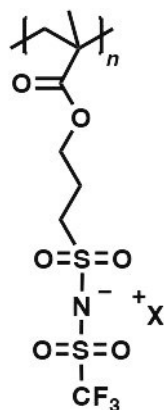
EK01 01-06

製品名	品番	容量
PolyDADMA Bis(trifluoromethane sulfonyl)imide	EK0101-01	5, 10, 25 g
PolyDADMA Bis(fluorosulfonyl)imide	EK0101-02	5, 10, 25 g
PolyDADMA dicyanamide	EK0101-03	5, 10, 25 g
PolyDADMA Bis(pentafluoroethane sulfonyl)imide	EK0101-04	5, 10, 25 g
PolyDADMA perfluorobutane sulfate	EK0101-06	5, 10, 25 g

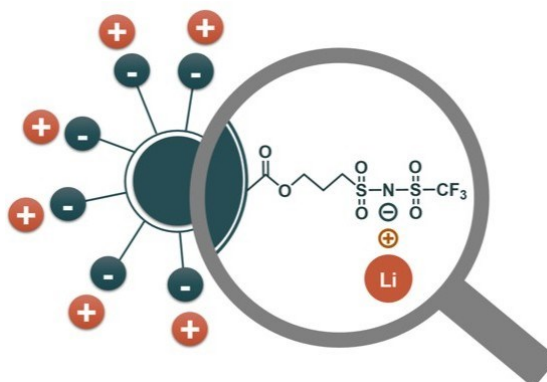
◆ シングルイオン伝導性ポリマー

スルホンイミドや硫酸基を備えたシングルイオン伝導性ポリマーは、リチウム、ナトリウム、亜鉛イオン電池のために特別に設計されています。

用途： 全固体電池、ポリマー電解質材料、印刷用ゲル、バインダー



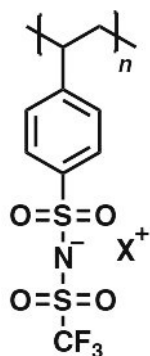
EK02 02-0X



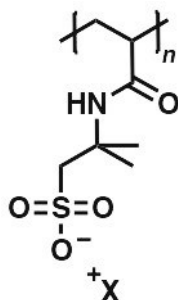
EK02 02-01N

EK02 02-01NはEK02 02-01からなるナノ粒子であり、以下の仕様を調整可能です。

- ・ 粒子サイズ: 30 - 50 nmまたは50 - 100 nm
- ・ 粒子のコア: Poly(methyl methacrylate) (PMMA) または Polystyrene (PS)
- ・ リチウムスルホンイミド コモノマーの組成



EK02 03-0X



EK02 05-0X

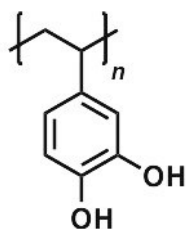
品番	イオン (X ⁺)
無機カチオン	
EK02 02/03/05-01	Li ⁺
EK02 02/03/05-02	Na ⁺
EK02 02/03/05-03	K ⁺
有機カチオン	
EK02 02/03/05-04	

製品名	品番	容量
Poly((trifluoromethane)sulfonimide lithium methacrylate)	EK0202-01	5, 10, 25 g
Nanoparticles of poly((trifluoromethane)sulfonimide lithium methacrylate)	EK0202-01N	5, 10, 25 g
Poly((trifluoromethane)sulfonimide lithium styrene)	EK0203-01	5, 10, 25 g
Lithium Poly(2-acrylamido-2-methyl-1-propanesulfonate)	EK0205-01	5, 10, 25 g

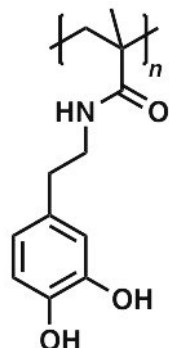
◆ レドックスポリマー&モノマー

高電圧に対応可能なポリカテコールポリマーや、TEMPO構造を有するラジカルポリマー/モノマー、ポリ（アントラキノイルスルフィド）やナフタレンポリイミドなどの安定なレドックスポリマー/モノマーです。

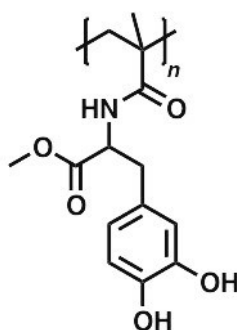
用途：有機電極、レドックス活性バインダー、レドックスフロー電池、生体適合性コーティング



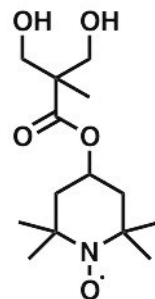
EK03 01



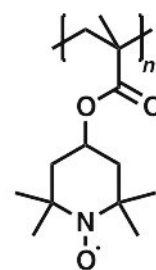
EK03 02-01



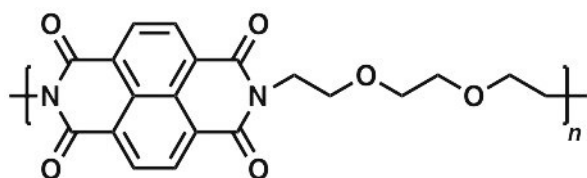
EK03 02-02



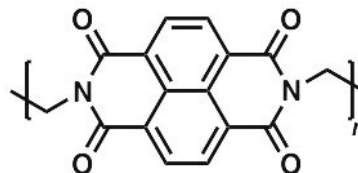
EK03 03-01



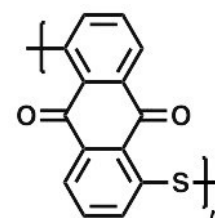
EK03 03-03



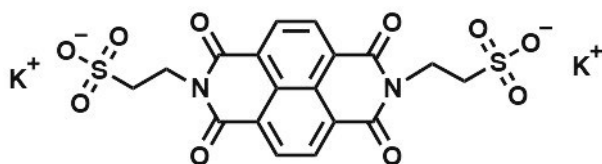
EK03 04



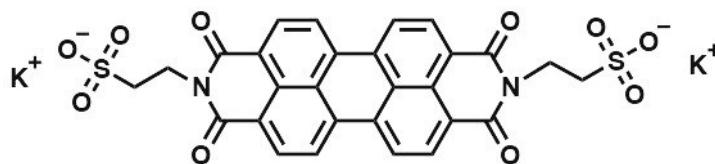
EK03 05



EK03 06



EK03 07-01



EK03 07-02

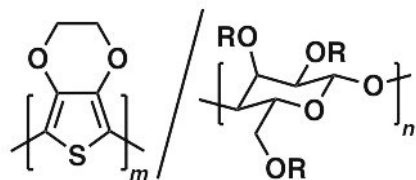
製品名	品番	容量
Poly(2,3-dihydroxystyrene)	EK03 01	5, 10 g
Poly((3,4-Dihydroxyphenylethyl)-2-propenamamide)	EK03 02-01	5, 10 g
Poly(N-methacryloyl 3,4-dihydroxy-Lphenylalanine methyl ester)	EK03 02-02	5, 10 g
2,2-bis(hydroxymethyl)propionic acid-TEMPO	EK03 03-01	1, 5 g
Poly(methacrylate-1-hydroxy TEMPO)	EK03 03-03	1, 5 g
Poly(1,4,5,8-naphthalenetetracarboxylic dianhydride imide diethyleneoxide)	EK03 04	5, 10, 25 g
1,4,5,8-naphthalenetetracarboxylic dianhydride-based Polyimide	EK03 05	5, 10, 25 g
Poly(1-Ethyl-5-(methylamino)anthracene-9,10-dione)	EK03 06	5, 10, 25 g
2,2'-(1,3,6,8-tetraoxo-tetrahydrobenzo[3,8]phenanthroline-2,7-diyl)-bis(ethane-1-sulfonate) dipotassium	EK03 07-01	5, 10, 25 g
2,2'-(1,3,8,10-tetraoxotetrahydroanthra[2,1,9]diisoquinoline-2,9-diyl)-bis(ethane-1-sulfonate) dipotassium	eK03 07-02	5, 10, 25 g

◆ PEDOT/バイオポリマー

PEDOT系伝導性ポリマーと水溶性電極バインダーであるバイオポリマーの水分散体です。

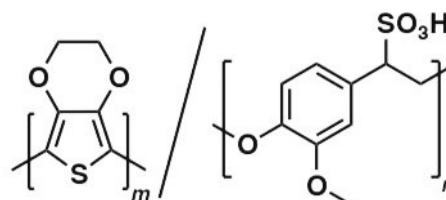
カルボキシメチルセルロース、リグニンスルホン酸、ポリビニルアルコール、ヒアルロン酸、グアーガムなどのバイオポリマーを幅広く取り揃えています。

用途：伝導性添加剤、水溶性バインダー



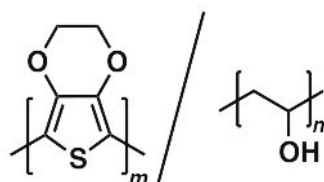
PEDOT/Carboxymethyl cellulose

EK04 01



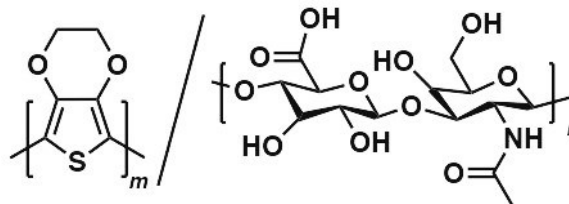
PEDOT/Lignin sulfonate

EK04 02



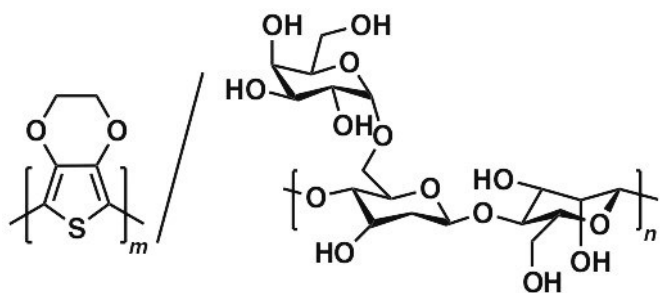
PEDOT/Polyvinyl alcohol

EK04 03



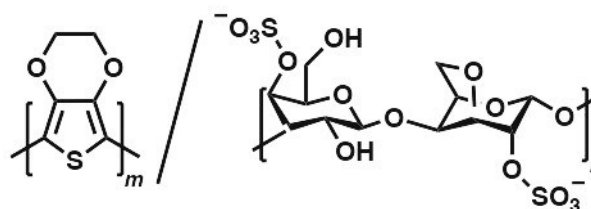
PEDOT/Hyaluronic acid

EK04 04



PEDOT/Guar gum

EK04 05



PEDOT/Carrageenan

EK04 06

製品名	品番	容量
PEDOT/Carboxymethyl cellulose	EK0401	1 L
PEDOT/Lignin sulfonate	EK0402	1 L
PEDOT/Polyvinyl alcohol	EK0403	1 L
PEDOT/Hyaluronic acid	EK0404	1 L
PEDOT/Guar gum	EK0405	1 L
PEDOT/Carrageenan	EK0406	1 L

ナノセルロース材料

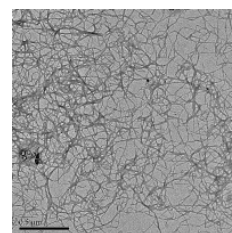
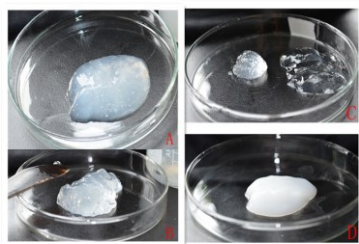
Cellulose Lab社（カナダ）をはじめとした複数メーカーのナノセルロース材料を取扱っています。セルロースはリチウムイオン電池のバインダーやセパレーターといった電気化学的用途も注目されており、本メーカーの製品は北米やヨーロッパのトップクラスメーカーが研究開発に利用している実績があります。



	CNF/ セルロースナノファイバー	CNC/ セルロースナノクリスタル	BC/ バクテリアセルロース
製品サイズ範囲	Width: 10 - 80 nm Length: 800 nm - 数百 um	Width: 5 - 100 nm Length: 50 nm - 2 um	Width: 50 - 100 nm Length: ≥ 30 um
製造方法	機械的処理による解繊	酸加水分解（硫酸、塩酸、リン酸、有機酸）	バクテリアによりCNFを合成
特長	非晶部と結晶部の両方を有し、網目状の構造を呈する。特に高い比表面積	分散性の高さ、乾燥後も容易に再懸濁可能。高い結晶化度	高い純度（ヘミセルロース・リグニン等を含まない）、高強度、成形性、高い保水性

◆ セルロースナノファイバー（CNF）・セルロースマイクロファイバー（MFC）

CNF・MFCスラリーは非常に低い濃度（2～7%、w/w）で粘性のあるせん断減粘性の水性ゲルです。また、乾燥させると透明な膜を形成します。これらの主要な特性はいずれも、その高い比表面積（セルロース繊維の>10倍）と広範な水素結合能力に関連するものです。CNFは、他の繊維と比較して、より高い柔軟性と大きい表面積および長さを有します。



品番	製品名	仕様	提供形態
MFC-Slurry-M120	Cellulose Microfibrils	Width: 0.2 - 20 um, Length: 100 - 1000 um, D50: 125 um Surface Group: Hydroxyl [Hydrophilic]	1-20% solids in water
MFC-Slurry-M100	Cellulose Microfibrils	Width: 0.05 - 20 um, Length: 20 - 200 um, D50: 93 um Surface Group: Hydroxyl [Hydrophilic]	1-20% solids in water
MFC-Slurry-M70	Cellulose Microfibrils	Width: 0.01 - 1 um, Length: 1 - 100 um, D50: 69 um Surface Group: Hydroxyl [Hydrophilic]	1-20% solids in water
CNF-Slurry-H50	Cellulose Nanofibrils	Width: 1 - 80 nm, Length: 1 - 50 um, D50: 50 um Surface Group: Hydroxyl [Hydrophilic]	1-15% solids in water
CNF-Slurry-H35	Cellulose Nanofibrils	Width: 1 - 50 nm, Length: 1 - 30 um, D50: 35 um Surface Group: Hydroxyl [Hydrophilic]	1-15% solids in water
CNF-Slurry-H25	Cellulose Nanofibrils	Width: 1 - 30 nm, Length: 1 - 10 um, D50: 24 um Surface Group: Hydroxyl [Hydrophilic]	1-15% solids in water
CNF-Slurry-B20	Cellulose Nanoparticles	Width: 5 - 30 nm, Length: 50 - 300 nm, D50: 21.5 um Surface Group: Hydroxyl [Hydrophilic]	1-10% solids in water
CNF-Slurry-B15	Cellulose Nanoparticles	Width: 5 - 30 nm, Length: 50 - 300 nm, D50: 18.6 um Surface Group: Hydroxyl [Hydrophilic]	1-10% solids in water
CNF-Slurry-B10	Cellulose Nanoparticles	Width: 5 - 30 nm, Length: 50 - 300 nm, D50: 12 um Surface Group: Hydroxyl [Hydrophilic]	1-10% solids in water
CNF-Slurry-B5	Cellulose Nanoparticles	Width: 5 - 30 nm, Length: 50 - 300 nm, D50: 9.3 um Surface Group: Hydroxyl [Hydrophilic]	1-10% solids in water

品番	製品名	仕様	提供形態
CNF-Slurry-SMC	Cellulose Nanofibrils, prepared by supermass colloidizer	Width: nominal 30 - 80 nm, Length: ~several hundred um Surface Group: Hydroxyl [Hydrophilic]	1-20% solids in water
CNF-Slurry-HPH	Cellulose Nanofibrils, prepared by high pressure homogenizer	Width: 10 - 60 nm, Length: 800 - 3000 nm Surface Group: Hydroxyl [Hydrophilic]	0.5-15% solids in water
CNF-Slurry-Cotton	Cellulose Nanofibrils, cotton material	Width: nominal 30 - 80 nm, Length: ~several hundred um Surface Group: Hydroxyl [Hydrophilic]	0.5-8% solids in water
CNF-Slurry-Kenaf	Cellulose Nanofibrils, Kenaf material	Width: nominal 30 - 80 nm, Length: ~several hundred um Surface Group: Hydroxyl [Hydrophilic]	0.5-8% solids in water
CNF-CM-Slurry	Carboxymethylated Cellulose Nanofibrils	Width: 10 - 13 nm, Length: 1000 - 3000 nm Surface Group: Carboxymethyl, hydroxyl [Hydrophilic]	0.5-3% solids in water
CNF-Cationic	Cationic type Cellulose Nanofibrils	Width: 50 nm, Length: ~several hundred um Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	0.5-5% solids in water
CNF-Amphiphilic	Cellulose Nanofibrils, Amphiphilic	Width: 10 - 100 nm, Length: ~several hundred um Surface Group: hydroxyl, lignin [Amphiphilic]	0.5-20% solids in water
CNF-Lignin-High	Cellulose Nanofibrils, with ~25% lignin content	Width: 10 - 50 nm, Length: ~several hundred um Surface Group: hydroxyl, lignin [Hydrophilic]	0.5-20% solids in water
CNF-Lignin-Medium	Cellulose Nanofibrils, with ~12% lignin content	Width: 10 - 50 nm, Length: ~several hundred um Surface Group: hydroxyl, lignin [Hydrophilic]	0.5-20% solids in water
CNF-Lignin-Low	Cellulose Nanofibrils, with ~3% lignin content	Width: 10 - 50 nm, Length: ~several hundred um Surface Group: hydroxyl, lignin [Hydrophilic]	0.5-20% solids in water
CNF-PO	Cellulose Nanofibrils, Periodate oxidated	Width: 10 - 50 nm, Length: 800 - 1500 nm Surface Group: dialdehyde, hydroxyl [Hydrophilic]	0.3-1% in water
CNF-Hydrophobic	Hydrophobic CNF, Hydrophobic	Width: 10 - 50 nm, Length: 800 - 1500 nm Surface Group: Ester group, hydroxyl [Hydrophobic]	Dry powder
CNF-FD	Cellulose Nanofibrils Freeze-dried	Width: nominal 30 - 80 nm, Length: ~several hundred um Surface Group: Hydroxyl [Hydrophilic]	Dry powder
CNF-CM-SD-P	Carboxymethylated Cellulose Nanofibrils, Spray-dried, Pulp material	Width: 10 - 13 nm, Length: 1000 - 3000 nm Surface Group: Carboxymethyl, hydroxyl [Hydrophilic]	Dry powder
CNF-CM-SD-C	Carboxymethylated Cellulose Nanofibrils, Spray-dried, Cotton material	Width: 10 - 13 nm, Length: 1000 - 3000 nm Surface Group: Carboxymethyl, hydroxyl [Hydrophilic]	Dry powder
CNF-CM-SD-S	Carboxymethylated Cellulose Nanofibrils, Spray-dried, Sisal material	Width: 10 - 13 nm, Length: 1000 - 3000 nm Surface Group: Carboxymethyl, hydroxyl [Hydrophilic]	Dry powder
CNF-Cationic-FD	Cationic type Cellulose Nanofibrils; Freeze-dried powder	Width: 50 nm, Length: ~several hundred um Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	Dry powder
CNF-Amphiphilic-FD	Cellulose Nanofibrils, Amphiphilic, Freeze-dried powder	Width: 10 - 100 nm, Length: ~several hundred um Surface Group: hydroxyl, lignin [Amphiphilic]	Dry powder
CNF-Aerogel	Cellulose Nanofibrils Aerogel (liquid nitrogen process); Hydrophilic	Width: 10 - 60 nm, Length: 800 - 3000 nm Surface Group: Hydroxyl [Hydrophilic]	Aerogel

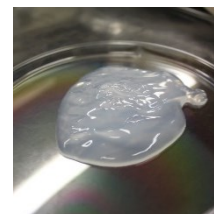
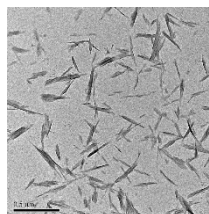
Cellulose Lab社製品を用いた文献

Md Manik Mian, Ishimwe Marie Louise Kamana, Xingye An, Syed Comail Abbas, Md Sohel Ahommed, Zhibin He, Yonghao Ni, Cellulose nanofibers as effective binders for activated biochar-derived high-performance supercapacitors, *Carbohydrate Polymers* 301 (2023) 120353
<https://doi.org/10.1016/j.carbpol.2022.120353>

Hao Zhang, Xingye An, Yiluo Yang, Yinying Long, Shuangxi Nie, Liqin Liu, Guihua Yang, Zhongjian Tian, Haibing Cao, Zhengbai Cheng, Hongbin Liu, Yonghao Ni, Vertical aligned solid-state electrolyte templated by nanostructured "upright" cellulose film layers for advanced cell performance
<https://dx.doi.org/10.2139/ssrn.4203334>

◆ セルロースナノクリスタル (CNC)

CNCは、一部の石油化学製品の代替品として、他の高性能ナノ材料よりも安価であるため、注目されています。CNCの興味深い特性により、そのアプリケーションは多岐にわたります。



品番	製品名	仕様	提供形態
CNC-Slurry-Regular	Cellulose Nanocrystals, Sulfuric acid hydrolysis	Width: 5 - 20 nm, Length: 100 - 250 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	0.5-6% solids in water
CNC-Slurry-HS	Cellulose Nanocrystals, Sulfuric acid hydrolysis, high sulfonic group content	Width: 5 - 20 nm, Length: 100 - 250 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	0.5-10% solids in water
CNC-Slurry-DS	Cellulose Nanocrystals, Desulfated	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Hydroxyl [Hydrophilic]	0.5%-8% solids in water
CNC-Slurry-CM	Carboxymethylated Cellulose Nanocrystals, Pulp material	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: carboxymethyl group, hydroxyl [Hydrophilic]	0.5%-5% solids in water
CNC-Cationic	Cationic type Cellulose Nanocrystals	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	0.5%-2% solids in water
CNC-Tunicate	Tunicate Cellulose Nanocrystals, marine biomass with high aspect ratio, sulfuric acid hydrolysis	Width: 5 - 20 nm, Length: 500 nm - 2 um Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	0.5-2% solids in water
CNC-FA-Regular	Cellulose Nanocrystals, Formic acid hydrolysis; Substitution degree < 0.5	Width: 5 - 30 nm, Length: 50 - 300 nm Surface Group: Phosphate, hydroxyl [Hydrophilic]	Precipitated slurry in water
CNC-FA-High	Cellulose Nanocrystals, Formic acid hydrolysis; High Substitution Degree (SD around 1.1)	Width: 5 - 30 nm, Length: 50 - 300 nm Surface Group: Phosphate, hydroxyl [Hydrophilic]	Precipitated slurry in water
CNC-PA	Cellulose Nanocrystals, Phosphoric acid hydrolysis	Width: 5 - 30 nm, Length: 50 - 300 nm Surface Group: Phosphate, hydroxyl [Hydrophilic]	0.5-1% solids in water
CNC-EP	Cellulose Nanocrystals, epoxy grafted	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Epoxy, hydroxyl group [Hydrophilic]	1%-5% solids in water
CNC-Hydrophobic	Cellulose Nanocrystals, Hydrophobic	Width: less than 100 nm, Length: less than 100 nm Surface Group: Ester group, hydroxyl [Hydrophobic]	Dry powder
CNC-SD	Cellulose Nanocrystals Spray-dried	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	Dry powder
CNC-FD	Cellulose Nanocrystals Freeze-dried	Width: 5 - 20 nm, Length: 100 - 250 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	Dry powder
CNC-HS-SD	Cellulose Nanocrystals, high sulfonic group content, Spray-dried	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	Dry powder
CNC-HS-FD	Cellulose Nanocrystals, high sulfonic group content, Freeze-dried	Width: 5 - 20 nm, Length: 100 - 250 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	Dry powder
CNC-DS-SD	Cellulose Nanocrystals, Desulfated, Spray-dried powder	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Hydroxyl [Hydrophilic]	Dry powder
CNC-DS-FD	Cellulose Nanocrystals, Desulfated, Freeze-dried powder	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Hydroxyl [Hydrophilic]	Dry powder
CNC-CM-SD	Carboxymethylated Cellulose Nanocrystals, Spray-dried, Pulp material	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: carboxymethyl group, hydroxyl [Hydrophilic]	Dry powder
CNC-Cationic-FD	Cationic type Cellulose Nanocrystals; Freeze-dried powder	Width: 5 - 20 nm, Length: 140 - 200 nm Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	Dry powder
CNC-FA-Regular-FD	Cellulose Nanocrystals, Formic acid hydrolysis; Substitution degree < 0.5; Freeze-dried powder	Width: 5 - 30 nm, Length: 50 - 300 nm Surface Group: Ester, hydroxyl [Hydrophilic]	Dry powder
CNC-FA-High-FD	Cellulose Nanocrystals, Formic acid hydrolysis; High Substitution Degree (around 1.1); Freeze-dried powder	Width: 5 - 30 nm, Length: 50 - 300 nm Surface Group: Ester, hydroxyl [Hydrophilic]	Dry powder
CNC-Aerogel	Cellulose Nanocrystal Aerogel (liquid nitrogen process); Hydrophilic	Width: 5 - 20 nm, Length: 100 - 250 nm Surface Group: Hydroxyl, sulfonic group [Hydrophilic]	Aerogel

◆ バクテリアセルロース（BC）

BCは、A.xylium などの特定の種類のバクテリアによって生成されます。BCは植物セルロースとは異なる特性を持ち、高純度（ヘミセルロース、リグニン、ワックス、ペクチンを含まない）、強度、成形性、および保水性の向上を特徴としています。



マテリアルグレードBCのシート

品番	製品名	仕様	提供形態
BC-MA-0.2-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 0.2cm		Vacuum Pressed Sheet
BC-MA-0.3-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 0.3cm		Vacuum Pressed Sheet
BC-MA-0.5-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 0.5cm		Vacuum Pressed Sheet
BC-MA-1-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 1.0cm		Vacuum Pressed Sheet
BC-MA-1.2-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 1.2cm		Vacuum Pressed Sheet
BC-MA-1.5-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 1.5cm		Vacuum Pressed Sheet
BC-MA-1.8-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 1.8cm		Vacuum Pressed Sheet
BC-MA-2-S	Material Grade BC Sheet; Size after rehydration 20cm X 10cm X 2cm	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Hydroxyl [Hydrophilic]	Vacuum Pressed Sheet
BC-MA-0.2-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 0.2cm		Vacuum Pressed Sheet
BC-MA-0.3-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 0.3cm		Vacuum Pressed Sheet
BC-MA-0.5-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 0.5cm		Vacuum Pressed Sheet
BC-MA-1-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 1.0cm		Vacuum Pressed Sheet
BC-MA-1.2-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 1.2cm		Vacuum Pressed Sheet
BC-MA-1.5-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 1.5cm		Vacuum Pressed Sheet
BC-MA-1.8-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 1.8cm		Vacuum Pressed Sheet
BC-MA-2-L	Material Grade BC Sheet; Size after rehydration 32cm X 24cm X 2.0cm		Vacuum Pressed Sheet

バクテリアセルロースのスラリー、凍結乾燥粉末

品番	製品名	仕様	提供形態
BC-Slurry	Bacterial Cellulose Slurry	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Hydroxyl [Hydrophilic]	1 wt% in water
BC-Cationic	Cationic type bacterial Cellulose; Ordered upon request	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	0.5-2 wt% in water
BC-FD	Bacterial Cellulose , freeze-dried powder	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Hydroxyl [Hydrophilic]	Dry Powder
BC-Aerogel	Bacterial Cellulose Aerogel	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Hydroxyl [Hydrophilic]	Dry Sheet
BC-Cationic-FD	Cationic type bacterial Cellulose; Freeze-dried powder, Ordered upon request	Width: 50 - 100 nm; Length: ≥ 30 um Surface Group: Quaternary ammonium, hydroxyl [Hydrophilic]	Dry Powder

この他にも、高品質で手ごろな価格の商用グレードのナノセルロース（CNF、CNC、BC）を提供しています。製品価格や詳細な仕様など、弊社までお気軽にお問合せください。

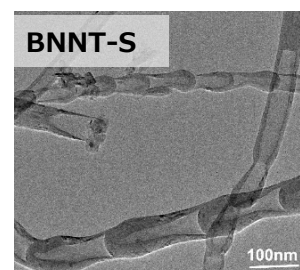
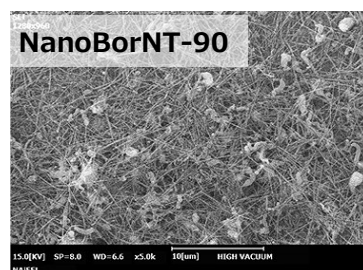
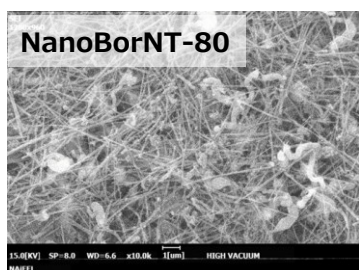
窒化ホウ素ナノチューブ (BNNT)

◆ 窒化ホウ素ナノチューブ (BNNT)

窒化ホウ素ナノチューブ (BNNT) はカーボンナノチューブ (CNT) と類似構造でありながら、軽量、機械的強度など多くの優れた特性を有する材料です。カーボンナノチューブとの大きな違いは電気絶縁性を有することです。現在、第4次産業革命をリードする次世代のナノ材料として注目されています。

【窒化ホウ素ナノチューブ (BNNT) とカーボンナノチューブ (CNT) の比較 (代表値)】

	カーボンナノチューブ (CNT)	窒化ホウ素ナノチューブ (BNNT)
電氣的性質	金属または半導体	電気絶縁性 ($E_g: \sim 5.5 \text{ eV}$)
機械的性質	$E = 1.33 \text{ TPa}$	$E = 1.18 \text{ TPa}$
熱伝導率	60 - 40,000 W/mK	$\sim 3,000 \text{ W/mK}$ (Cu = 400 W/mK)
耐熱酸化性	空气中で300 - 400 °Cまで安定	空气中で最高800 °Cまで安定
バイオメディカル	細胞毒性	非細胞毒性
色	ブラック	ホワイト/グレー
極性	共有結合 (双極子なし)	永久双極子、圧電性 ($0.25 - 0.4 \text{ C/m}^2$)
表面形態	なめらか	波形
熱膨張係数	-1×10^{-6}	-1×10^{-6}



メーカー	仕様	形状	品番	容量
NAiEEL Technology	BNNT ~ 80 wt%, 直径 30 - 50 nm、長さ 5 - 10 μm	粉末	NanoBorNT-80	1g
NAiEEL Technology	BNNT ~ 90 wt%, 直径 30 - 50 nm、長さ 5 - 10 μm	粉末	NanoBorNT-90	500mg
BNNT Technology	直径 20 - 150 nm、長さ 5 - 40 μm 、金属含有量 2 - 3 wt%	粉末	BNNT-S	1g
BNNT Technology	直径 20 - 150 nm、長さ 3 - 30 μm 、金属含有量 0.1 - 0.2 wt%	粉末	BNNT-P	1g
BNNT Materials	BNNT Refined Puffball, natB	パフボール	SP10-R natB	100mg

※製品の販売形状は粉末、パフボール、溶媒分散の3種類より選択可能です。
 ※提供形態などのカスタマイズに関してはお問い合わせください。

カーボン材料

BeDimensional社（イタリア）は、Few-Layersグラフェンや六方晶窒化ホウ素（*h*-BN）といった2D結晶材料の工業生産を確立しました。機能性塗料、エネルギー貯蔵、ポリマー複合材料などの分野でソリューションを提供します。

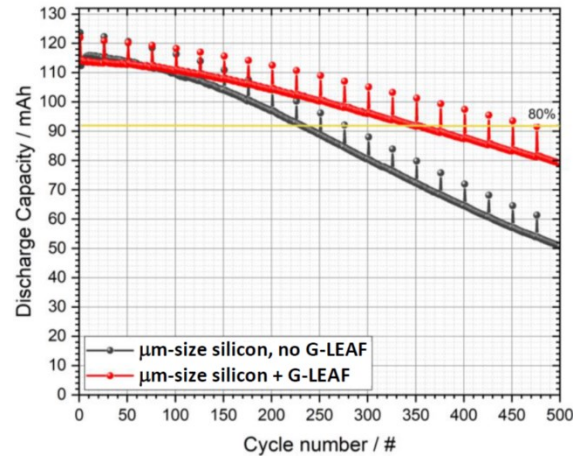


◆ グラフェン粉末 G-LEAF 09900

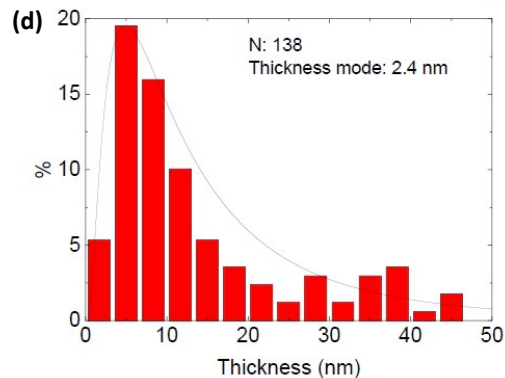
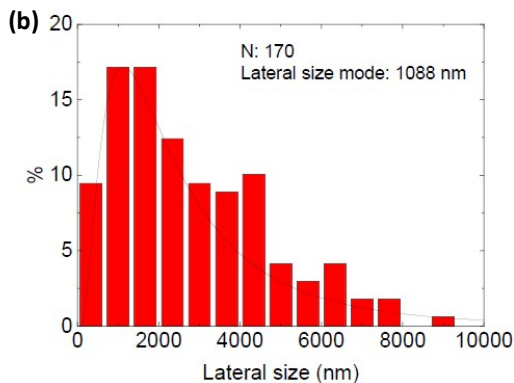
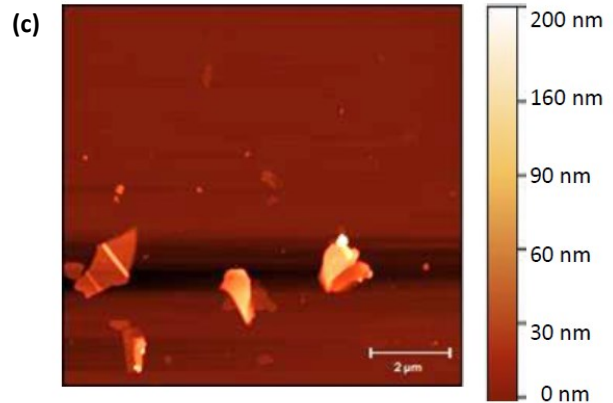
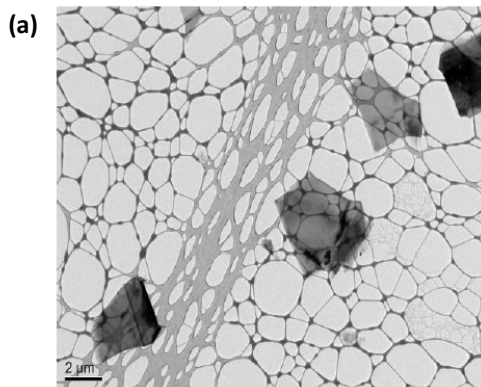
G-LEAF 09900は、Few-Layersグラフェン（FLG）の粉末です。大手電池メーカーとの共同研究により、本製品をリチウムイオン電池のシリコンアノードに添加することで、純粋なシリコンアノードに比べてサイクル性能が約60%向上する*ことが実証されました。

製品データ

横方向のサイズ	~ 1,000 nm (average)
厚さ	< 4 nm (average)
残留溶媒量	< 1 wt% (average)
残留水分量	< 1 wt% (average)
販売容量	100 g, 250 g, 500 g, 1 kg



*BeDimensional社とVARTA社との共同研究による特定のシステムにおいて得られたデータです。



(a) FLGフレークのTEM像
(b) 横方向のサイズの統計データ

(c) FLGフレークのAFMマップ
(d) 厚さの統計データ

ACS Material社（アメリカ）は様々なカーボン材料（グラフェン、グラファイト、カーボンナノチューブ、フラーレン、メソポーラスカーボンなど）を粉末や分散液などの形態で販売しています。

カーボンナノチューブや酸化グラフェンなどは、キログラムスケールでご提供可能なメーカーもございます。



◆ 単層カーボンナノチューブ粉末

グレード	仕様	OD	Length	容量	品番
-	Carbon Nanohorns	2-5 nm		200mg	CNHS00A2
Purified (SWCNT >90%)	-	1-2 nm	1-3 um	1g	CSP10501
		1-2 nm	5-30 um	1g	CSP10201
	Carboxylate	1-2 nm	1-3 um	1g	CSP30701
		1-2 nm	5-30 um	1g	CSP30401
	Hydroxylate	1-2 nm	1-3 um	1g	CSP20601
		1-2 nm	5-30 um	1g	CSP20301
	Aminated	1-2 nm	1-3 um	1g	CSP41501
		1-2 nm	5-30 um	1g	CSP41401
Highly Purified (SWCNT >95%)	-	1-2 nm	1-3 um	1g	CSH11901
		1-2 nm	5-30 um	1g	CSH11601
	(CVD Method)	< 2 nm	5-30 um	500mg	CSH001A5
	(Large Surface Area)	1-2 nm	5-30 um	1g	CSH42201
	Carboxylate	1-2 nm	1-3 um	1g	CSH22001
		1-2 nm	5-30 um	1g	CSH21701
	Hydroxylate	1-2 nm	1-3 um	1g	CSH32101
		1-2 nm	5-30 um	1g	CSH31801
Industrial (SWCNT >60%)	-	1-2 nm	1-3 um	1g	CSI11101
		1-2 nm	5-30 um	1g	CSI10801
	Carboxylate	1-2 nm	1-3 um	1g	CSI31301
		1-2 nm	5-30 um	1g	CSI31001
	Hydroxylate	1-2 nm	1-3 um	1g	CSI21201
		1-2 nm	5-30 um	1g	CSI20901

◆ 二層カーボンナノチューブ粉末

グレード	仕様	OD	Length	容量	品番
-	-	2-4 nm	50 um	1g	CDI00101
(DWCNT >60%)		2-4 nm	0.5-2 um	1g	CDI00401
	Carboxylate	2-4 nm	50 um	1g	CDI20301
		2-4 nm	0.5-2 um	1g	CDI20601
	Hydroxylate	2-4 nm	50 um	1g	CDI10201
		2-4 nm	0.5-2 um	1g	CDI10501

◆ 多層カーボンナノチューブ粉末

グレード	仕様	OD	Length	容量	品番		
-	Ni Coated	30 - 50 nm	< 10 um	10g	CMN10111		
		> 50 nm	< 10 um	10g	CMN20111		
	Fluorinated	20 - 50 nm	2 - 10 um	20g	CFNT0122		
	Aminated	10 - 20 nm	~ 50 um	5g	CNTMA005		
	Nitrogen-doped	40 - 100 nm	10 - 30 um	5g	CNTMN005		
	Carbon nanofibers	100 - 300 nm	5 - 50 um	25g	CNFS00B1		
Purified (Purity >90%)	-	< 8 nm	0.5 - 2 um	5g	CMP00105		
		< 8 nm	10 - 30 um	10g	CMP00211		
		8 - 15 nm	0.5 - 2 um	5g	CMP10105		
		8 - 15 nm	~ 50 um	10g	CMP10211		
		10 - 20 nm	0.5 - 2 um	5g	CMP20105		
		10 - 20 nm	10 - 30 um	10g	CMP20211		
		30 - 50 nm	< 10 um	10g	CMP30111		
		> 50 nm	< 10 um	10g	CMP40111		
		Carboxylate	< 8 nm	0.5 - 2 um	5g	CMPC0105	
			< 8 nm	10 - 30 um	10g	CMPC0211	
			8 - 15 nm	0.5 - 2 um	5g	CMCP1105	
			8 - 15 nm	~ 50 um	10g	CMCP1211	
			10 - 20 nm	0.5 - 2 um	5g	CPCM2105	
			10 - 20 nm	10 - 30 um	10g	CPCM2211	
	Hydroxylate	30 - 50 nm	< 10 um	10g	CCPM3111		
		> 50 nm	< 10 um	10g	CPMC4111		
		< 8 nm	0.5 - 2 um	5g	CMPH0105		
		< 8 nm	10 - 30 um	10g	CMPH0211		
		8 - 15 nm	0.5 - 2 um	5g	CMHP1105		
		8 - 15 nm	~ 50 um	10g	CMHP1211		
		10 - 20 nm	0.5 - 2 um	5g	CPHM2105		
		10 - 20 nm	10 - 30 um	10g	CPHM2211		
		30 - 50 nm	< 10 um	10g	CPMH3111		
		> 50 nm	< 10 um	10g	CHPM4111		
		Graphitized (Purity >99.9%)	-	8 - 15 nm	~ 50 um	10g	CMG00111
				10 - 20 nm	10 - 30 um	10g	CMG10111
	30 - 50 nm			< 10 um	10g	CMG20111	
	> 50 nm			< 10 um	10g	CMG30111	
Carboxylate	8 - 15 nm		~ 50 um	10g	CMGC0111		
	10 - 20 nm		10 - 30 um	10g	CGCM1111		
	30 - 50 nm		< 10 um	10g	CMCG2111		
	> 50 nm		< 10 um	10g	CCGM3111		
Hydroxylate	8 - 15 nm		~ 50 um	10g	CMGH0111		
	10 - 20 nm		10 - 30 um	10g	CGHM1111		
	30 - 50 nm		< 10 um	10g	CHGM2111		
	> 50 nm		< 10 um	10g	CHMG3111		

◆ 多孔質カーボン、カーボンナノチューブ、グラフェン/グラファイト

マテリアル	品番	製品名	容量
フラーレン	CC60A001	Fullerene C60, Type A: purity >99.5wt%	1g
フラーレン	CC60B001	Fullerene C60, Type B: purity >99.9wt%	1g
メソポーラスカーボン	CNCM3301	CMK-3, Mesoporous Carbon, Type B	1g
メソポーラスカーボン	CNCM8001	Ordered mesoporous carbon cmk-8	1g
メソポーラスカーボン	CNDM0001	Disordered Mesoporous Carbon	5g
メソポーラスカーボン	CSMCS001	Large Size Mesoporous Carbon Spheres	1g
メソポーラスカーボン	CNCMK001	N-doped Mesoporous Carbon	1g
メソポーラスカーボン	-	Nitrogen-doped Mesoporous Carbon spheres (NC) 詳細ラインアップはお問合せください。	1g
メソポーラスカーボン	CNGPC001	Nitrogen-doped Graphitic Porous Carbon (NGPC)	1g
メソポーラスカーボン	CNP00001	Porous Carbon	50g
メソポーラスカーボン	CSHS0201	Hollow Carbon Spheres with Soft Template	1g
メソポーラスカーボン	CSHS01A5	Hollow Carbon Spheres with Hard Template	500mg
メソポーラスカーボン	-	Nano Porous Carbon Film (NCS) 詳細ラインアップはお問合せください。	1
メソポーラスカーボン	CSCTF001	Crystalline Covalent Triazine Framework (CTF)	1g
メソポーラスカーボン	CNCG00A5	Carbon Nanocages, 500mg	500mg
カーボンナノチューブ	CNTS1A01	Carbon Nanotube Sponges, L:1cm W:1cm H:0.2cm	1
カーボンナノチューブ	CNTS1A02	Carbon Nanotube Sponges, L:2cm W:2cm H:0.2cm	1
カーボンナノチューブ	CNTS1A03	Carbon Nanotube Sponges, L:5cm W:2cm H:0.2cm	1
カーボンナノチューブ	CNTS1A04	Carbon Nanotube Sponges, L:10cm W:5cm H:0.2cm	1
カーボンナノチューブ	CSP00001	Single-Walled Carbon Nanotube Paper	1
グラファイト・黒鉛	CGTPP012	Pyrolytic Graphite Powder (熱分解黒鉛)	10g
グラファイト・黒鉛	CNGT0112	Natural Graphite Nanoparticles (天然黒鉛)	20g
グラファイト・黒鉛	GT1FS012	Synthetic Graphite Fluoride (人造黒鉛)	20g
グラファイト・黒鉛	-	Graphite Fluoride (Carbon Monofluoride)	20g
グラファイト・黒鉛	-	Expandable Graphite (膨張黒鉛) 詳細ラインアップはお問合せください。	200g
グラファイト・黒鉛	-	Highly Oriented Pyrolytic Graphite (HOPG) 詳細ラインアップはお問合せください。	1
グラファイト・黒鉛	-	Graphite Flake (以下よりメッシュ数をご選択の上、お問合せください。) Mesh: 50, 80, 100, 200, 300, 500, 1000, 3500	100g 500g
グラファイト・黒鉛	GTOI0011	Industrial-Grade Graphite Oxide, 0.2-10um, 10g	10g
グラファイト・黒鉛	GTOLD005	Low-Defect Graphite Oxide, 5g	5g
グラファイト・黒鉛	GTOP0001	Graphite Oxide, 500mg	500mg

マテリアル	品番	製品名	容量
グラフェン	GN1P0005	Single Layer Graphene Powder, 500mg	500mg
グラフェン	GNP1F005	Single Layer Graphene (Graphene Factory)	5g
グラフェン	GND100A5	Single Layer Graphene Dispersion in Water, 1mg/ml	100ml
グラフェン	GNNP01A5	Graphene Nanoplatelets (1-2nm)	500mg
グラフェン	GNNP0051	Graphene Nanoplatelets (2-10nm)	50g
グラフェン	GP2P0012	2D Porous Graphene, Type: Powder	20mg
グラフェン	GNPA0012	Graphene (Arc-Discharge Method)	20g
グラフェン	GNPOH0A5	Hydroxyl Functionalized Graphene	500mg
グラフェン	GNCP0005	Carboxyl Graphene	500mg
グラフェン	GNAMODA5	Aminated Graphene Octadecylamine covalently linked	500mg
グラフェン	GNAMPIA5	Aminated Graphene Piperazine covalently linked	500mg
グラフェン	GNFA0001	Fluorinated Graphene, Type-A	200mg
グラフェン	GNFF0015	Industrial Fluorinated Graphene	50g
グラフェン	GN1ND001	Nitrogen-doped Graphene Powder	1g
グラフェン	GNAA0001	Graphene Aerogel, Type A, 1 Piece	1 Piece
グラフェン	GNAB0001	Graphene Aerogel, Type B, 1 Piece	1 Piece
グラフェン	GNANA001	Nitrogen-Doped Graphene Aerogel, Type A	1 Piece
グラフェン	GNCR0001	Reduced Graphene Oxide (rGO)	1g
グラフェン	GNCRH0A5	Highly Conductive Reduced Graphene Oxide (rGO)	500mg
グラフェン	GDW00031	Graphene Dispersion in Water (Dia:1-3- μ m), 1Kg	1kg
グラフェン	GDN00031	Graphene Dispersion in NMP (Dia:1-3- μ m), 1Kg	1kg
グラフェン	GND5N101	Graphene Dispersion in NMP, 1g/L	1L
グラフェン	GNDRN101	Graphene Dispersion in NMP (Oxygen Reduced), 1g/L	1L
グラフェン	GNCW0005	Carboxyl Graphene Water Dispersion	100ml
酸化グラフェン	GNOP10A5	Single Layer Graphene Oxide Flake (H Method)	500mg
酸化グラフェン	GNOP20A5	Single Layer Graphene Oxide Powder (H Method)	500mg
酸化グラフェン	GNOD1W01	Single Layer Graphene Oxide Dispersion in Water, 5mg/ml	100ml
酸化グラフェン	GNO1W001	Single Layer Graphene Oxide Dispersion in Water, 10mg/ml	100ml
酸化グラフェン	GNOD1E01	Single Layer Graphene Oxide Dispersion in Ethanol, 5mg/ml	100ml
酸化グラフェン	GNOS0010	Graphene Oxide (S Method)	10g
酸化グラフェン	GNOP11A5	High Surface Area Graphene Oxide, Type A	500mg
酸化グラフェン	GnOPaper	Graphene Oxide Film-Super Paper, DIA: 40 mm	1 Piece

金属・非金属ナノ粒子

弊社では、様々なメーカーの金属・非金属ナノ粒子を取り扱っています。本紙では、一例としてUS Research Nanomaterials社（アメリカ）のナノ粒子をご紹介します。本メーカーの製品には、有機溶媒分散でのご提供が可能なものもございます。



US Research
Nanomaterials

◆ 金属ナノ粒子

組成	品番	製品名
Ag	US1018	Silver Nanopowder (Ag, 99.99% , 50-80 nm, w/~0.2% PVP)
Ag	US1038	Silver Nanopowder (Ag, 99.99%, 20nm, metal basis)
Ag	US1037	Silver Nanopowder (Ag, 99.99%, 20nm, w/~0.2% PVP)
Ag	US1035	Silver Nanopowder (Ag, 99.99%, 30-50 nm, w/~0.2 wt% PVP Coated)
Ag	US1036	Silver Nanopowder (Ag, 99.99%, 30-50nm, metal basis)
Ag	US1028	Silver Nanopowder (Ag, 99.99%, 50-80 nm, metal basis)
Ag	US1008	Silver Nanopowder (Ag, 99.99%, 80-100 nm, metal basis)
Al	US1042	Aluminum Nanoparticles (Al, 99.9%, 800 nm, metal basis)
Al	US1052	Aluminum Nanopowder (Al, 99.9%, 18nm, metal basis, Laser synthesized)
Al	US1050	Aluminum Nanopowder (Al, 99.9%, 40nm, metal basis)
Al	US1048	Aluminum Nanopowder (Al, 99.9%, 70nm, metal basis)
Al	US1043	Aluminum Nanopowder (Al, 99.9+%, 100nm, metal basis)
Au	US1054	Gold Nanopowder (Au, 99.95+%, 15 nm)
Au	US1055	Gold Nanopowder (Au, 99.97+%, 28 nm)
Au	US1056	Gold Nanopowder (Au, 99.99+%, 50-100 nm)
Bi	US1053	Bismuth Nanoparticles (Bi, 80nm, 99.9%, Metal Basis)
Cr	US1086	Chromium Nanopowder (Cr, 99.9%, 35-45 nm, metal basis)
Co	US1079	Cobalt (Co) Micro Powder (Co, high purity, 99.9%, APS 1.3 um, metal basis)
Co	US1081	Cobalt Nanopowder (Co, 99.8%, 28 nm, carbon coated, metal basis)
Co	US1080	Cobalt Nanopowder (Co, 99.8%, 28 nm, partially passivated, metal basis)
Cu	US1827	Copper Nanoparticles / Nanopowder (Cu, Cu ₂ O Coated, 99%, 30 nm)
Cu	US1828	Copper Nanoparticles / Nanopowder (Cu, Partially Passivated, 99.8%, 25nm)
Cu	US1829	Copper Nanoparticles / Nanopowder (Cu-Carbon Coated, 99.8%, 25 nm)

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組成	品番	製品名
Cu	US1088	Copper Nanopowder (Cu, 99.9%, 100nm, metal basis)
Cu	US1090	Copper Nanopowder (Cu, 99.9%, 40 nm, metal basis)
Cu	US1082	Copper Nanopowder (Cu, 99.9%, 580 nm, metal basis)
Cu	US1089	Copper Nanopowder (Cu, 99.9%, 70nm, metal basis)
Cu	US1087	Copper Nanopowder (Cu, 99.9%, 90-250 nm, metal basis)
Cu	US8001	Cu Wire / Copper Wire, Diameter 100-300nm, Length 5-7um, Purity 99.5%
Fe	US1106	Iron Nanopowder (Fe, 99.5%, 25 nm, carbon coated, Metal basis)
Fe	US1105	Iron Nanopowder (Fe, 99.5%, 25 nm, partially passivated, Metal basis)
Fe	US1101	Iron Nanopowder (Fe, 99.5+%, 35-45nm, metal basis)
Fe	US1099	Iron Nanopowder (Fe, 99.5+%, 65-75nm, metal basis)
Fe	US1097	Iron Nanopowder (Fe, 99.5+%, 95-105nm, metal basis)
Ge	US1301	Germanium Nanopowder (Ge, 99.9+%, 35nm)
In	US1103	Indium (In) Nanopowder / Nanoparticles (In, 99.99%, 80nm, tetragonal crystalline, black)
Mg	US1060	Magnesium MicroPowder (Mg, 10um & 40um, 99.9%, Metal Basis)
Mg	US1061	Magnesium MicroPowder (Mg, 800nm, 99%, Metal Basis)
Mo	US1112	Molybdenum Nanopowder (Mo, 99.9%, 35-45 nm, metal basis)
Ni	US1119	Nickel Nanopowder (Ni, 99.9%, 100 nm, metal basis)
Ni	US1125	Nickel Nanopowder (Ni, 99.9%, 20nm, carbon coated, metal basis)
Ni	US1124	Nickel Nanopowder (Ni, 99.9%, 20nm, partially passivated, metal basis)
Ni	US1120	Nickel Nanopowder (Ni, 99.9%, 40 nm, metal basis)
Ni	US1118	Nickel Nanopowder (Ni, 99.9%, 70 nm, metal basis)
Nb	US1868	Niobium Nanopowder (Nb, 99.9%, 50 nm)
Sn	US1136	Tin Nanopowder (Sn, 99.99%, 60-80nm, metal basis)
Ta	US1143	Tantalum Nanopowder (Ta, high purity, 99.99%, 50-80 nm, metal basis)
Ti	US1156	Titanium Nanopowder (Ti, 99.9%, 70nm, metal basis)
Ti	US1157	Titanium Nanopowder (Ti, 99.9+%, 30-50nm, metal basis)
W	US1159	Tungsten Nanopowder (W, 99.95+%, 40-60 nm, metal basis)
W	US1158	Tungsten Nanopowder (W, 99.95+%, 70 nm, metal basis)
Y	US1302	Yttrium Powder (Y, 99.9%, 40um)
Zn	US1163	Zinc Nanopowder (Zn, high purity, >99.99%, 95-105 nm, metal basis)
Zn	US1167	Zinc Nanopowder (Zn, high purity, 99.99+%, 35-45 nm, metal basis)
Zn	US1166	Zinc Nanopowder (Zn, high purity, 99.99+%, 65-75 nm, metal basis)

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組成	品番	製品名
Au	US1808	US Precious Metal Nanopowder 15nm 99.95% (Gold)
Ir	US1808	US Precious Metal Nanopowder 15nm 99.95% (Iridium)
Pd	US1808	US Precious Metal Nanopowder 15nm 99.95% (Palladium)
Pt	US1808	US Precious Metal Nanopowder 15nm 99.95% (Platinum)
Rh	US1808	US Precious Metal Nanopowder 15nm 99.95% (Rhodium)
Ru	US1808	US Precious Metal Nanopowder 15nm 99.95% (Ruthenium)

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◆ 非金属・半金属ナノ粒子

組成	品番	製品名
B	US1057	Boron Nanopowder (B, 92%, 1-2um)
B	US1051	Boron Nanoparticles (B, 99.5+%, 500nm)
B	US1151	Boron Nanoparticles (B, 99.9%, 100nm)
C	US4450	Carbon NanoFibers, Purity: >95%, OD: 200-600nm
C	US4460	Graphitized Carbon NanoFibers, Purity: >99.9%, OD: 200-600nm
C	US1077	Super Activated Carbon Nanopowder (C, <100nm, Bamboo as Raw Materials)
C	US1078	Super Activated Carbon Nanopowder (C, <100nm, Charcoal as Raw Materials)
C	US1076	Super Activated Carbon Nanopowder (C, <100nm, Coconut Shell as Raw Materials)
C	US1074	Super Activated Porous Carbon Nanopowder (C, 20-40 nm, Plant as Raw Materials)
C	US1075	Super Activated Porous Carbon Nanopowder (C, 60-80nm, Plant as Raw Materials)
C	US4521	Aligned MWNTs, >95%, OD: 10-20nm, Length: 5-15um
C	US4522	Aligned MWNTs, >95%, OD: 10-20nm, Length: 30-100um
S	US1611	Sulphur (S) Nanoparticles (S, 30 nm, High Purity 99.99%)
S	US1610	Sulphur (S) Nanoparticles (S, 47 nm, High Purity 99.99%)
Si	US1121	Silicon MicroPowder (Si, 99.9%, 1-3 um, Polycrystalline)
Si	US1127	Silicon Nanopowder (Si, >99%, 100nm, Polycrystalline Nanopowder&Nanowire mixed)
Si	US1130	Silicon Nanopowder (Si, 98+%, <80 nm, laser Synthesized, Polycrystalline structure)
Si	US1132	Silicon Nanopowder (Si, 98+%, 10 nm, laser Synthesized, Polycrystalline structure)
Si	US1135	Silicon Nanopowder (Si, 98+%, 20-30 nm, laser Synthesized, Polycrystalline structure)
Si	US1131	Silicon Nanopowder (Si, 98+%, 30-50 nm, laser Synthesized, Polycrystalline structure)
Si	US1129	Silicon Nanopowder (Si, 98+%, 50-70 nm, laser Synthesized, Polycrystalline structure)
Si	US1128	Silicon Nanopowder (Si, 99+%, 50-80 nm, Monocrystalline)

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◆ 金属酸化物ナノ粒子

組成	品番	製品名
Al(OH) ₃	US3026	Aluminum Hydroxide Nanopowder (Al(OH) ₃ , 99.9%, 10 nm, Hydrophilic)
Al(OH) ₃	US3025	Aluminum Hydroxide Nanopowder (Al(OH) ₃ , 99.9%, 100 nm, Hydrophilic)
Al(OH) ₃	US3027	Aluminum Hydroxide Nanopowder (Al(OH) ₃ , 99.9%, 50 nm, Hydrophilic)
Al(OH) ₃	US3005	Aluminum Oxide Nanoparticles Coated with Aluminic Ester (Al ₂ O ₃ :Aluminic Ester=98.1:1.2, alpha, 60 nm, Super Hydrophobic Stronger Lipophilic)
Al ₂ O ₃	US1018F	Alumina Nanoparticles (Al ₂ O ₃ , 20% alpha/80% gamma, 99.9%, 50 nm)
Al ₂ O ₃	US1017F	Alumina Nanoparticles (Al ₂ O ₃ , 50% alpha/50% gamma, 99.9%, 50 nm)
Al ₂ O ₃	US3001	Alumina Nanoparticles (Al ₂ O ₃ , 80% alpha/20% gamma, 99.9%, 50 nm)
Al ₂ O ₃	US3004	Alumina Nanoparticles (Al ₂ O ₃ , amorphous, 99.9%, 50 nm, highly self-dispersible)
Al ₂ O ₃	US3008	Aluminum Oxide Nanopowder (Al ₂ O ₃ , alpha, 99+%, 80 nm)
Al ₂ O ₃	US3003	Aluminum Oxide Nanopowder (Al ₂ O ₃ , alpha, High Purity 99.9%, 135 nm)
Al ₂ O ₃	US3002	Aluminum Oxide Nanopowder (Al ₂ O ₃ , alpha, High Purity 99.9%, 200 nm)
Al ₂ O ₃	US3006	Aluminum Oxide Nanopowder (Al ₂ O ₃ , alpha, High Purity 99.9%, 300 nm)
Al ₂ O ₃	US3007	Aluminum Oxide Nanopowder (Al ₂ O ₃ , gamma, 99.99%, 5 nm)
Al ₂ O ₃	US3023	Aluminum Oxide Nanopowder (Al ₂ O ₃ , gamma, 99+%, 20 nm)
Al ₂ O ₃	US3024	Aluminum Oxide Nanopowder (Al ₂ O ₃ , gamma, high purity 99.5%, 80 nm)
Al ₂ O ₅ Ti	US1021F	Aluminum Titanate Nanopowder / Al ₂ O ₅ Ti Nanoparticles 5nm - 1000 nm
AlCeO ₃	US1022F	Aluminum Cerium Oxide Nanopowder / AlCeO ₃ Nanoparticles 5nm - 1000 nm
AZO	US3805	Zinc Oxide Nanoparticles Doped with 2wt% Aluminum Oxide (AZO, 15nm, 99.99+%)
BaCO ₃	US3817	Barium Carbonate Nanopowder (BaCO ₃ , 99.8%, 800nm)
BaFe ₁₂ O ₁₉	US3810	Barium Iron Oxides Nanopowder (BaFe ₁₂ O ₁₉ , 99.5%, 60 nm)
BaTiO ₃	US3833	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 100 nm, Cubic)
BaTiO ₃	US3830	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 200 nm, Tetragonal)
BaTiO ₃	US3829	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 300 nm, Tetragonal)
BaTiO ₃	US3828	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 400 nm, Tetragonal)
BaTiO ₃	US3835	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 50 nm, Cubic)
BaTiO ₃	US3827	Barium Titanate Nanopowder (BaTiO ₃ , 99.9%, 500 nm, Tetragonal)
BaTiO ₃ -SrTiO ₃	US1026F	Barium Strontium Titanium Oxide Nanoparticles / BaTiO ₃ -SrTiO ₃ Nanopowder
Bi ₂ O ₃	US3028	Bismuth Oxide Nanopowder (Bi ₂ O ₃ , 99.9%, 80nm)

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組成	品番	製品名
CaCO ₃	US3701	Precipitated Calcium Carbonate Nanoparticle dispersed, can be used in plastics, construction adhesive --Solid fatty acid coated / Precipitated CaCO ₃ Nanopowder, 50nm, 98%--Extrusion is high, easily
CaCO ₃	US3701	Precipitated Calcium Carbonate Nanoparticles / Precipitated CaCO ₃ Nanopowder, 50nm, 98%or, - Low viscosity, Good dispersion property, mainly used in construction sealant--Plant Oil Acid coated
CaCO ₃	US3701	Precipitated Calcium Carbonate Nanoparticles / Precipitated CaCO ₃ Nanopowder, 50nm, 98%-Rosin coated - mainly used in ink, painting
CaCO ₃	US3701	Precipitated Calcium Carbonate Nanoparticles / Precipitated CaCO ₃ Nanopowder, 50nm, 98%-Stearic Acid coated High viscosity,
CaCO ₃	US3701	Precipitated Calcium Carbonate Nanoparticles / Precipitated CaCO ₃ Nanopowder, 50nm, 98%-Uncoated purity powder-mainly for the automotive, construction, plastic sealants and adhesives, and for Ink, painting
CeO ₂	US3236	Cerium Oxide Nanopowder (CeO ₂ , 99.97%, 100nm)
CeO ₂	US3036	Cerium Oxide Nanopowder (CeO ₂ , 99.97%, 10-30nm)
CeO ₂	US3136	Cerium Oxide Nanopowder (CeO ₂ , 99.97%, 50nm)
CeO ₂	US3037	Cerium Oxide Nanopowder (CeO ₂ , 99.99%, 10 nm)
CeO ₂ ·Y ₂ O ₃	US1025F	Cerium(IV) Oxide-ytria Doped Nanopowder / CeO ₂ -Y ₂ O ₃ Nanoparticles, 10nm, 99.9%
CeO ₂ ·ZrO ₂	US1024F	Cerium(IV)-Zirconium(IV) Oxide Nanopowder / CeO ₂ -ZrO ₂ Nanoparticles
Co ₂ O ₃	US3053	Cobalt(III) Oxide (Co ₂ O ₃) or Dicobalt Trioxide Nanopowder (Co ₂ O ₃ , 99.7%, 50nm)
Co ₃ O ₄	US3056	Cobalt Oxide Nanopowder (Co ₃ O ₄ , 99%, 10-30 nm)
Co ₃ O ₄	US3054	Cobalt Oxide Nanopowder (Co ₃ O ₄ , 99.9%, 15nm)
Co ₃ O ₄	US3055	Cobalt Oxide Nanopowder (Co ₃ O ₄ , High purity, >99.5%, 30-50 nm)
CoAl ₂ O ₄	US1023F	Cobalt Aluminum Oxide Nanopowder / CoAl ₂ O ₄ Nanoparticles
CoFe ₂ O ₄	US3843	Cobalt Iron Oxides Nanopowder (CoFe ₂ O ₄ , High purity 99.9%, 30nm)
CoNiO ₂	US1027F	Nickel Cobalt Oxide Nanoparticles / CoNiO ₂ Nanopowder
CoO	US3051	Cobalt(II) Oxide or Cobalt Monoxide Nanopowder (CoO, 99.7%, 50nm)
Cr ₂ O ₃	US3060	Chromium Oxide Nanopowder (Cr ₂ O ₃ , 99+%, 60 nm)
Cu(OH) ₂	US3078	Copper(II) Hydroxide nanopowder (Cu(OH) ₂ , 99.5%, Nanowire)
Cu ₂ O	US3075	Copper (I) Oxide (Cuprous Oxide Cu ₂ O) Nanopowder / Nanoparticles (Cu ₂ O, 18nm, Super fine 99.86%)
CuO	US3065	Copper Oxide Nanopowder (CuO, 99%, <80nm)
CuO	US3808	Copper Oxide Nanopowder (CuO, 99%, 10nm)
CuO	US3070	Copper Oxide Nanopowder (CuO, 99%, 40nm)
CuO	US3063	Copper Oxide Nanopowder (CuO, high purity, 99.95+%, 25-55nm)
CuO	US3068	Copper Oxide Nanorods (CuO Nanorods, 99.5+%, Width:15-35nm, Length: 60-140nm)
Dy ₂ O ₃	US3080	Dysprosium Oxide Nanopowder (Dy ₂ O ₃ , 99.9+%, 30 nm)
Er ₂ O ₃	US3140	Erbium Oxide Nanopowder (Er ₂ O ₃ , 99.9%, 10-100 nm, Cubic)
Eu ₂ O ₃	US3543	Europium Oxide Nanopowder (Eu ₂ O ₃ , 99.99%, 10-100 nm, Cubic)

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組成	品番	製品名
Fe(OH) ₃	US3163	Iron Hydroxide Nanoparticles Iron(III) Oxide-Hydroxide IRON TRIHYDROXIDE Fe(OH) ₃ FeO(OH)·H ₂ O FeH ₃ O ₃ (99.9%, 10nm, Dark Orange)
Fe(OH) ₃	US3161	Iron Hydroxide Nanoparticles Iron(III) Oxide-Hydroxide IRON TRIHYDROXIDE Fe(OH) ₃ FeO(OH)·H ₂ O FeH ₃ O ₃ (99.9%, 5nm, Dark Orange)
Fe ₂ O ₃	US3209	Iron Oxide Nanoparticles / Nanopowder (Fe ₂ O ₃ , alpha, 99.9%, 10nm, Orange-Red)
Fe ₂ O ₃	US3201	Iron Oxide Nanoparticles / Nanopowder (Fe ₂ O ₃ , alpha, 99.9%, 5nm, Orange-Red)
Fe ₂ O ₃	US3204	Iron Oxide Nanoparticles / Nanopowder (Fe ₂ O ₃ , gamma, 99.%, 10nm, Brown)
Fe ₂ O ₃	US3202	Iron Oxide Nanoparticles / Nanopowder (Fe ₂ O ₃ , gamma, 99.9%, 5nm, Brown)
Fe ₂ O ₃	US3180	Iron Oxide Nanopowder (Fe ₂ O ₃ , alpha, 98+%, 20-40 nm)
Fe ₂ O ₃	US3160	Iron Oxide Nanopowder (Fe ₂ O ₃ , alpha, high purity, 99.5+%, 30 nm)
Fe ₂ O ₃	US3210	Iron Oxide Nanopowder (Fe ₂ O ₃ , gamma, 99%, 20-40 nm)
Fe ₂ O ₃	US3200	Iron Oxide Nanopowder (Fe ₂ O ₃ , gamma, high purity, 99.5+%, 20 nm)
Fe ₂ O ₃	US3237	Iron Oxide Nanorods and Flaky Mixed (Fe ₂ O ₃ , alpha, 98%, 120nmx20nm, Red color)
Fe ₂ O ₃ ·H ₂ O (FeOOH)	US3162	Iron Oxide Nanorods (Fe ₂ O ₃ ·H ₂ O / FeOOH, alpha, 98%, 50nmx10nm, Yellow color)
Fe ₃ O ₄	US8238DD	Dispersible Dilutable Magnetite Fe ₃ O ₄ Nanoparticles / Iron Oxide Nanopowder, 15nm, 99.5%
Fe ₃ O ₄	US3203	Fe ₃ O ₄ Iron Oxide Nanoparticles / Nanopowder (Fe ₃ O ₄ , 99.9%, 3nm, Black)
Fe ₃ O ₄	US3208	Fe ₃ O ₄ Iron Oxide Nanoparticles / Nanopowder (Fe ₃ O ₄ , 99.9%, 8nm, Black)
Fe ₃ O ₄	US3220	Iron Oxide Nanopowder (Fe ₃ O ₄ , 98+%, 20-30 nm)
Fe ₃ O ₄	US3230	Iron Oxide Nanopowder (Fe ₃ O ₄ , high purity, 99.5+%, 15-20 nm)
Gd ₂ O ₃	US3240	Gadolinium Oxide Nanopowder (Gd ₂ O ₃ , 99.9%, 10-100 nm, Cubic)
HfO ₂	US3245	Hafnium Oxide Nanopowder (HfO ₂ , 99.99%, high purity, 61-80nm, Cubic)
In(OH) ₃	US3260	Indium Hydroxide Nanopowder (In(OH) ₃ , high purity, 99.99+%, 20-70 nm)
In ₂ O ₃	US3250	Indium Oxide Nanopowder (In ₂ O ₃ , High Purity , 99.995%, 20-70 nm)
ITO	US3855	Indium Tin Oxide Nanopowder (ITO, In ₂ O ₃ :SnO ₂ =90:10, 99.99+%, 20-70nm)
ITO	US3858	Indium Tin Oxide Nanopowder (ITO, In ₂ O ₃ :SnO ₂ =95:5, 99.99+%, 20-70nm)
ITO	US3811	ITO Nanoparticles / Nanopowder (Indium Tin Oxide, 90:10, 18nm, Blue Color)
ITO	US3812	ITO Nanoparticles / Nanopowder (Indium Tin Oxide, 95:5, 18nm, Blue Color)
La ₂ O ₃	US3270	Lanthanum oxide Nanopowder (La ₂ O ₃ , 99.99%, <200nm)
La ₂ O ₃	US3265	Lanthanum Oxide Nanopowder (La ₂ O ₃ , 99.99%, 10-100nm)
La ₂ O ₃	US3271	Lanthanum oxide Nanopowder (La ₂ O ₃ , 99.99%, 18nm)
Mg(OH) ₂	US3320	Magnesium Hydroxide Nanopowder (Mg(OH) ₂ , 99%, 10 nm)
MgCO ₃	US3328	Magnesium Carbonate Nanopowder / Nanoparticles (MgCO ₃ , 10nm, 99.5%)

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組成	品番	製品名
MgO	US3311	Magnesium Oxide Nanopowder (MgO, 98+%, 10 nm)
MgO	US3308	Magnesium Oxide Nanopowder (MgO, 99.95+%, 50 nm)
MgO	US3290	Magnesium Oxide Nanopowder (MgO, 99+%, <100 nm)
MgO	US3295	Magnesium Oxide Nanopowder (MgO, 99+%, <60 nm)
MgO	US3310	Magnesium Oxide Nanopowder (MgO, 99+%, 20 nm)
MgO	US3300	Magnesium Oxide Nanopowder (MgO, 99+%, 40 nm)
Mn ₂ O ₃	US3318	Manganese Oxide Nanopowder (Mn ₂ O ₃ , 98%, 100nm)
Mn ₂ O ₃	US3340	Manganese Oxide Nanopowder (Mn ₂ O ₃ , 99.2%, 30 nm)
Mn ₃ O ₄	US3348	Manganese(II,III) Oxide (Mn ₃ O ₄) Nanopowder (Mn ₃ O ₄ , 99.95%, 30nm)
MnFe ₂ O ₄	US3910	Manganese Iron oxide Nanopowder (MnFe ₂ O ₄ , 98.5%, 60 nm)
MnFe ₂ O ₄	US3912	Manganese Iron oxide Nanopowder (MnFe ₂ O ₄ , 99.99%, 28 nm)
MnO ₂	US3319	Manganese Oxide Nanopowder (MnO ₂ , 98%, 50nm)
MoO ₃	US3330	Molybdenum Oxide Nanopowder (MoO ₃ , 99.94+%, high purity, 13-80 nm, Orthorhombic crystal)
Nd ₂ O ₃	US3350	Neodymium Oxide Nanopowder (Nd ₂ O ₃ , 99.9%, 30-45 nm)
Ni(OH) ₂	US3351	Nickel Hydroxide Ni(OH) ₂ Nanopowder / Nanoparticles (Ni(OH) ₂ , Super Fine 99.98%, 18NM, Green)
Ni _{0.5} Co _{0.5} Fe ₂ O ₄	US3965	Nickel Cobalt Iron Oxide Nanopowder (Ni _{0.5} Co _{0.5} Fe ₂ O ₄ , 99.995%, 40 nm)
Ni _{0.5} Zn _{0.5} Fe ₂ O ₄	US3960	Nickel Zinc Iron Oxide Nanopowder (Ni _{0.5} Zn _{0.5} Fe ₂ O ₄ , 99.995%, 10-30 nm)
Ni ₂ O ₃	US3357	Ni ₂ O ₃ Nanoparticles / Nanopowder (Nickel (III) Oxide, Ni 71%, 80nm)
Ni ₂ O ₃	US3358	Nickel (III) Oxide Nanopowder (Ni ₂ O ₃ , 99%, 30nm)
NiFe ₂ O ₄	US3958	Nickel Iron Oxide Nanopowder (NiFe ₂ O ₄ , 98%, 30 nm)
NiFe ₂ O ₄	US3959	Nickel Iron Oxide Nanopowder (NiFe ₂ O ₄ , 99.99%, 20 nm)
NiO	US3356	Nickel Oxide Nanopowder (NiO, 99%, 10-20 nm)
NiO	US3355	Nickel Oxide Nanopowder (NiO, High Purity, 99.5+%, 15-35 nm)
NiO	US3352	Nickel Oxide Nanopowder / NiO Nanoparticles (NiO, Super Fine 99.98%, 18nm, Cubic)
Pr ₆ O ₁₁	US3405	Praseodymium oxide Nanopowder (Pr ₆ O ₁₁ , 99.9%, 10-100 nm)
Pr ₆ O ₁₁	US3400	Praseodymium oxide Nanopowder (Pr ₆ O ₁₁ , 99.9%, 15-55 nm)
Sb ₂ O ₃	US3410	Antimony Oxide Nanopowder (Sb ₂ O ₃ , 99.9%, 80-200 nm)
Sb ₂ O ₃ ・SnO ₂	US3800	Antimony Tin Oxide Nanopowder (ATO, SnO ₂ :Sb ₂ O ₃ =90:10, 30nm, high purity, 99.95+%)
SiO ₂	US3448	Silicon Dioxide Nanoparticles (SiO ₂ , 97.3+%, 15nm, amorphous, coated with 2% Silane)
SiO ₂	US3439	Silicon Oxide Nanopowder (SiO ₂ , 95.9+%, 20-30 nm, amorphous, coated with KH570)
SiO ₂	US3441	Silicon Oxide Nanopowder (SiO ₂ , 96.3+%, 20-30 nm, amorphous, coated with KH550)

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組成	品番	製品名
SiO ₂	US3435	Silicon Oxide Nanopowder (SiO ₂ , 98+%, 60-70 nm, amorphous)
SiO ₂	US3438	Silicon Oxide Nanopowder (SiO ₂ , 99+%, 20-30 nm, amorphous)
SiO ₂	US3437	Silicon Oxide Nanopowder (SiO ₂ , 99+%, 8nm, amorphous)
SiO _x	US3440	Silicon Oxide Nanopowder (SiO _x , 99.5+%, P-type (Porous), 15-20 nm, amorphous)
SiO _x	US3436	Silicon Oxide Nanopowder (SiO _x , 99.5+%, S-type (Spherical), 15-20 nm, amorphous)
Sm ₂ O ₃	US3450	Samarium Oxide Nanopowder (Sm ₂ O ₃ , 99.9%, 15-45 nm)
SnO ₂	US3470	Tin Dioxide Nanopowder / SnO ₂ Nanoparticles (SnO ₂ , Super Fine 99.99%, 18nm, White)
SnO ₂	US3460	Tin Oxide Nanopowder (SnO ₂ , High purity, 99.7%, 35-55nm)
SrCO ₃	US3991	Strontium Carbonate Nanopowder (SrCO ₃ , 800nm, 99.5%)
SrFe ₁₂ O ₁₉	US3968	Strontium Iron Oxide Nanopowder (SrFe ₁₂ O ₁₉ , 99.5%, 60 nm)
SrTiO ₃	US3975	Strontium Titanate Nanopowder (SrTiO ₃ , 99.95%, 100 nm, Cubic Phase)
Tb ₄ O ₇	US3455	Terbium Oxide Nanopowder (Tb ₄ O ₇ , 99.99%, 10-100 nm, Cubic)
TiO ₂	US3411	TiO ₂ Nanoparticles / Titanium Oxide Nanoparticles (TiO ₂ , anatase, 99.5%, 100nm)
TiO ₂	US3529	Titanium Dioxide Nanoparticles Coated with Al, Si and Stearic Acid (TiO ₂ , Rutile, 30 nm)
TiO ₂	US1017M	Titanium Oxide MicroPowder, TiO ₂ -Anatase -1500nm
TiO ₂	US1152M	Titanium Oxide MicroPowder, TiO ₂ -Anatase--800nm
TiO ₂	US1017M	Titanium Oxide MicroPowder, TiO ₂ -rutile-1500nm
TiO ₂	US1152M	Titanium Oxide MicroPowder, TiO ₂ -rutile--800nm
TiO ₂	US3491	Titanium Oxide Nanoparticles Doped with Metal Tungsten (TiO ₂ anatase:W=93.8:5.8, 10 nm, Super Photocatalytic Activity)
TiO ₂	US1020F	Titanium Oxide Nanopowder (TiO ₂ , 20% anatase/80% rutile, 99+%, 20 nm)
TiO ₂	US1019F	Titanium Oxide Nanopowder (TiO ₂ , 50% anatase/50% rutile, 99+%, 20 nm)
TiO ₂	US3500	Titanium Oxide Nanopowder (TiO ₂ , 80% anatase/20% rutile, 99+%, 20 nm)
TiO ₂	US3501	Titanium Oxide Nanopowder (TiO ₂ , amorphous, 99.9%, 5 nm)
TiO ₂	US3492	Titanium Oxide Nanopowder (TiO ₂ , anatase, 99.5%, 15 nm)
TiO ₂	US3493	Titanium Oxide Nanopowder (TiO ₂ , anatase, 99.5%, 40 nm)
TiO ₂	US3838	Titanium Oxide Nanopowder (TiO ₂ , anatase, 99.5%, 5 nm)
TiO ₂	US3490	Titanium Oxide Nanopowder (TiO ₂ , anatase, 99+%, 18nm)
TiO ₂	US3498	Titanium Oxide Nanopowder (TiO ₂ , anatase, High Purity 99.98%, 30nm)
TiO ₂	US3524	Titanium Oxide Nanopowder (TiO ₂ , rutile, 92+%, 30 nm, coated with silicon and aluminum)
TiO ₂	US3528	Titanium Oxide Nanopowder (TiO ₂ , rutile, 92+%, 30 nm, coated with silicone oil)
TiO ₂	US3522	Titanium Oxide Nanopowder (TiO ₂ , rutile, 96+%, 30 nm, coated with silicon)

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組成	品番	製品名
TiO ₂	US3545	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9%, 165 nm)
TiO ₂	US3535	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9+%, 100 nm)
TiO ₂	US3520	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9+%, 30 nm)
TiO ₂	US3547	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9+%, 300 nm)
TiO ₂	US3530	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9+%, 50 nm)
TiO ₂	US3548	Titanium Oxide Nanopowder (TiO ₂ , rutile, high purity, 99.9+%, 500 nm)
WO ₃	US3538	Tungsten Oxide Nanopowder (WO ₃ , 99.9%, 60 nm)
WO ₃	US3540	Tungsten Oxide Nanopowder (WO ₃ , high purity, 99.95%, 23-65 nm, orthorhombic crystal)
Y ₂ O ₃	US3552	Yttrium Oxide Nanopowder (Y ₂ O ₃ , 99.99%, 10 nm)
Y ₂ O ₃	US3551	Yttrium Oxide Nanopowder (Y ₂ O ₃ , 99.99%, 30-45 nm)
Y ₂ O ₃	US3550	Yttrium Oxide Nanopowder (Y ₂ O ₃ , 99.999%, 20-40 nm)
Y ₃ Al ₅ O ₁₂	US3980	Yttrium Aluminate Nanopowder (Y ₃ Al ₅ O ₁₂ , YAG, high purity, 99.5+%, 30 nm)
Zn _{0.5} Co _{0.5} Fe ₂ O ₄	US3986	Zinc Cobalt Iron Oxides Nanopowder (Zn _{0.5} Co _{0.5} Fe ₂ O ₄ , 99.995%, 40 nm)
Zn _{0.5} Mn _{0.5} Fe ₂ O ₄	US3988	Zinc Manganese Iron Oxides Nanopowder (Zn _{0.5} Mn _{0.5} Fe ₂ O ₄ , 99.995%, 30-60 nm)
ZnCO ₃	US3595	Zinc Carbonate Nanopowder / Nanoparticles (ZnCO ₃ , 20nm, 99.5%)
ZnFe ₂ O ₄	US3982	Zinc Iron Oxide Nanopowder (ZnFe ₂ O ₄ , 98.5%, 10-30 nm)
ZnO	US3592	Zinc Oxide Nanoparticles Coated with KH550 (ZnO, 99+%, 20nm, Coated with Silane Coupling Agent)
ZnO	US3555	Zinc Oxide Nanopowder (ZnO, 99.9+%, 80-200 nm)
ZnO	US3599	Zinc Oxide Nanopowder (ZnO, 99.95%, 18 nm)
ZnO	US3590	Zinc Oxide Nanopowder (ZnO, 99+%, 10-30 nm)
ZnO	US3580	Zinc Oxide Nanopowder (ZnO, 99+%, 35-45 nm)
Zr(OH) ₄	US3930	Zirconium Hydroxide Nanopowder (Zr(OH) ₄ , 99.9%, 40 nm)
Zr _{0.2} BaTi _{0.8} O ₃	US3998	Zirconium Barium Titanate Nanoparticles (Zr _{0.2} BaTi _{0.8} O ₃ , 99.99%, 80nm)
ZrO ₂	US3659	Zirconium Oxide Nanopowder (ZrO ₂ , 99.95%, 20 nm)
ZrO ₂	US3600	Zirconium Oxide Nanopowder (ZrO ₂ , 99+%, 40 nm)
ZrO ₂ -3Y	US3610	Zirconia-Yttria Nanopowder (ZrO ₂ -3Y, 99.9%, 40 nm, metal basis)
ZrO ₂ -3Y	US3658	Zirconia-Yttria Nanopowder (ZrO ₂ -3Y, 99.95%, 20 nm, metal basis)
ZrO ₂ -5Y	US3620	Zirconia-Yttria Nanopowder (ZrO ₂ -5Y, 99.9%, 40 nm, metal basis)
ZrO ₂ -5Y	US3656	Zirconia-Yttria Nanopowder (ZrO ₂ -5Y, 99.95%, 20 nm, metal basis)
ZrO ₂ -8Y	US3630	Zirconia-Yttria Nanopowder (ZrO ₂ -8Y, 99.9%, 40 nm, metal basis)
ZrO ₂ -8Y	US3657	Zirconia-Yttria Nanopowder (ZrO ₂ -8Y, 99.95%, 20 nm, metal basis)

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組成	品番	製品名
ZTA	US1013F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 800nm, 99.9%, 10% Zirconia ZrO2
ZTA	US1014F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 800nm, 99.9%, 15% Zirconia ZrO2
ZTA	US1015F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 800nm, 99.9%, 20% Zirconia ZrO2
ZTA	US1016F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 800nm, 99.9%, 30% Zirconia ZrO2
ZTA	US1012F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 800nm, 99.9%, 5% Zirconia ZrO2
ZTA	US1008F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 80nm, 99.9%, 10% Zirconia ZrO2
ZTA	US1009F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 80nm, 99.9%, 15% Zirconia ZrO2
ZTA	US1010F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 80nm, 99.9%, 20% Zirconia ZrO2
ZTA	US1011F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 80nm, 99.9%, 30% Zirconia ZrO2
ZTA	US1007F	Zirconia Toughened Alumina (ZTA) Nanopowder / ZTA Nanoparticles, 80nm, 99.9%, 5% Zirconia ZrO2

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◆ 金属化合物ナノ粒子（酸化物以外）

組成	品番	製品名
AlN	US2010	Aluminum Nitride Nanopowder (AlN, 99.5%, 65-75 nm, Hexagonal)
B ₄ C	US2140	Boron Carbide (B4C) Nanopowder / Nanoparticles (B4C, 99+%, 45-55 nm, hexagonal)
BN	US2018	Boron Nitride Nanopowder (BN, 99.8%, 800 nm, hexagonal)
BN	US2019	Boron Nitride Nanopowder (BN, 99.8+%, 70-80nm, hexagonal)
CdS	US2816	Cadmium Sulfide Nanoparticles / CdS Nanopowder
Cr ₃ C ₂	US2081	Chromium carbide Nanopowder (Cr3C2, 30-120nm, 99.7+%, Gray, Orthorhombic Crystal)
CuPc	US1166M	C32H16CuN8 / Phthalocyanine Blue Nanopowder / Pigment Blue 15 Nanoparticles / Copper(II) Phthalocyanine Nanoparticles / CuPc NanoPowder
LaF ₃	US2150	Lanthanum Trifluoride Nanoparticle (LaF3, highly dispersible, purity
MoS ₂	US2180	Molybdenum Disulfide Nanoparticles (MoS2, 135nm, 99.9%, black)
Si ₃ N ₄	US2138	Silicon Nitride Nanopowder (Si3N4, 99+%, 80nm, amorphous)
Si ₃ N ₄	US2038	Silicon Nitride Nanopowder (Si3N4, 99+%, 15-30nm, amorphous)
SiC	US2021	Silicon Carbide Micronwhisker (SiC, Beta, whisker/micron, D<2.5 um, L/D>=20, 99+%)
SiC	US2160	Silicon Carbide SubMicron Powder (SiC, Beta, Sub-micron powder, 99+%, D<1um)
SiC	US2161	Silicon Carbide SubMicron Powder (SiC, Beta, 99+%, 600nm)
SiC	US2170	Silicon Carbide Micron Powder (SiC, Beta, Micron-powder, 1-40um adjustable, 99+%)
SiC	US2022	Silicon Carbide Nanopowder (SiC, beta, 99+%, <80 nm, cubic)
SiC	US2028	Silicon Carbide Nanopowder (SiC, beta, 99+%, 45-65nm, cubic)
SiC	US2011	Silicon Carbide Nanopowder (SiC, beta, 99+%, 18 nm, cubic, Laser Synthesized)

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組成	品番	製品名
TaC	US2085	Tantalum carbide Nanopowder (TaC, 99+%, 1000 nm, Cubic)
TiB ₂	US2042	Titanium Boride Micropowder (TiB ₂ , 98+%, 2-12 μm)
TiB ₂	US2166	Titanium Diboride (TiB ₂) Nanopowder / Titanium Boride (TiB ₂) Nanoparticles (TiB ₂ , 95+%, 58nm)
TiC	US2052	Titanium Carbide Nanopowder (TiC, 99+%, 40-60nm, cubic)
TiC	US2152	Titanium Carbide Nanopowder (TiC, 99+%, 80nm, cubic)
TiN	US2260	Titanium Nitride Nanopowder (TiN, 99.2+%, 80nm, Cubic)
TiN	US2060	Titanium Nitride Nanopowder (TiN, 99.2+%, 20nm, Cubic)
VC	US2078	Vanadium Carbide Nanopowder (VC, 99.9%, 600-800nm, Gray, Cubic Crystal Structure)
WC	US2065	Tungsten Carbide Nanopowder (WC, High purity, 99.95%, 30-100 nm, black hexagonal crystals)
WC	US2063	Tungsten Carbide Nanopowder (WC, 99.9%, 55 nm)
WC/Co	US2064	Tungsten Carbide/Cobalt Nanopowder (WC/Co-5wt%, 40-80 nm, 99.9%)
WS ₂	US2090	Tungsten (IV) sulfide Nanopowder, WS ₂ , 40-80nm, 99.9+%, Amorphous
ZrB ₂	US2069	Zirconium Diboride Nanoparticles / ZrB ₂ Nanopowder (ZrB ₂ , 99%, 43nm, Hexagonal)
ZrC	US2168	Zirconium Carbide Nanopowder (ZrC, 99+%, 80 nm, Cubic)
ZrC	US2068	Zirconium Carbide Nanopowder (ZrC, 99+%, 20 nm, Cubic)
Ag/Carbon Nanotube	US4133D	Silver Carbon Nanotubes / CNTs Doped with 50wt% Ag Nanopowder
Ag/Graphene	US4003GD	Graphene Silver Nanoparticles / Graphene Silver Nanopowder
Al/Carbon Nanotube	US4136D	Aluminum Carbon Nanotubes / CNTs Doped with 50wt% Al Nanopowder
Al/Graphene	US4005GD	Graphene Aluminum Nanoparticles / Graphene Aluminum Nanopowder
Co/Carbon Nanotube	US4151D	Cobalt Carbon Nanotubes / CNTs Doped with 50wt% Co Nanopowder
Cu/Carbon Nanotube	US4143D	Copper Carbon Nanotubes / CNTs Doped with 50wt% Cu Nanopowder
Cu/Graphene	US4007GD	Graphene Copper Nanoparticles / Graphene Copper Nanopowder
Fe/Carbon Nanotube	US4139D	Iron Carbon Nanotubes / CNTs Doped with 50wt% Fe Nanopowder
Fe/Graphene	US4004GD	Graphene Iron Nanoparticles / Graphene Iron Nanopowder
Si/Carbon Nanotube	US4146D	Silicon Carbon Nanotubes / CNTs Doped with 50wt% Si Nanopowder
Si/Graphene	US4002GD	Graphene Silicon Nanoparticles / Graphene Silicon Nanopowder
Sn/Carbon Nanotube	US4154D	Tin Carbon Nanotubes / CNTs Doped with 50wt% Sn Nanopowder
Ti/Carbon Nanotube	US4152D	Titanium Carbon Nanotubes / CNTs Doped with 50wt% Ti Nanopowder
W/Graphene	US4008GD	Graphene Tungsten Nanoparticles / Graphene Tungsten Nanopowder
Zn/Carbon Nanotube	US4153D	Zinc Carbon Nanotubes / CNTs Doped with 50wt% Zn Nanopowder
Zn/Graphene	US4009GD	Graphene Zinc Nanoparticles / Graphene Zinc Nanopowder

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◆ 合金ナノ粒子

組成	品番	製品名
Ag-Cu	US1890	Ag-Cu Nanopowder, 99.9%, Ag 10wt%, Cu: 90wt%
Ag-Cu	US1891	Silver-coated Copper Powder (800nm, 99.5%, Ag 20wt%, Cu 80wt%)
Ag-In	US1921	Ag-In Alloy Nanopowder, 99.9%, <100nm, Ag:In = 8:2
Ag-Sn	US1895	Ag-Sn Nanopowder, 99.9%, <100nm, Ag 10wt% : Sn 90wt%
Al-Cr	US1925D	Al-Cr Nanopowder, 99.9%, 40nm, Al:Cr = 50:50
Al-Ti	US1923D	Al-Ti Nanopowder, 99.9%, 40nm, Al:Ti = 50:50
Cu-In	US1919	Cu-In Alloy Nanopowde, 99.9%, <500nm, Cu:In = 5:5
Cu-In-Ga	US1922	Cu-In-Ga Alloy Nanopowder, 99.9%, Cu ₁₀ In ₈ Ga ₂
Cu-In-S	US1923	Cu-In-S Alloy Nanopowder, 99.9%, <100nm, Cu:In:S = 5:4:1
Cu-Ni	US1918	Cu-Ni Alloy Nanopowder, 99.9%, Cu ₅₀ :Ni ₅₀
Cu-Zn	US1019	Cu-Zn Alloy Nanopowder, 99.9%, 40 nm, Cu:Zn = 5:5
Cu-Zn	US1879	Cu-Zn Alloy Nanopowder, 99.9%, 40 nm-100 nm, Cu:Zn = 5:5
Cu-Zn	US1880	Cu-Zn Alloy Nanopowder, 99.9%, 40 nm-100 nm, Cu:Zn = 6:4
Cr-Ti	US1926D	Cr-Ti Alloy Nanopowder, 99.9%, 40 nm, Cr:Ti = 5:5
Cr-Si	US1927D	Cr-Si Alloy Nanopowder, 99.9%, 40 nm, Cr:Si = 5:5
Fe-Cr-Co	US1869	Fe-Cr-Co Alloy Nanopowder, 99.9%, 40 nm-100nm, Fe:Cr:Co = 64:25:11
Fe-Ni	US1669	Fe-Ni Alloy Nanopowder, 99.9%, 40 nm-100 nm, Fe:Ni = 5:5
Fe-Ni	US1670	Fe-Ni Alloy Nanopowder, 99.9%, 40 nm-100 nm, Fe:Ni = 2:8
Fe-Ni-Co	US1569	Fe-Ni-Co Alloy Nanopowder, 99.9%, 40 nm-100 nm, Fe:Ni:Co = 55:28:17
Ni-Cr	US1769	Ni-Cr Nnaopowder, 99.9% <100nm, Ni:Cr/8:2
Ni-Cr-Co	US1900	Ni-Cr-Co Nanopowder, 99.9% <100nm, Ni ₄₀ -Cr ₃₀ -Co ₃₀
Ni-Fe-Cr	US1988	Ni-Fe-Cr Alloy Nanopowder, 99.9%, 40 nm, Ni ₅₀ -Fe ₃₀ -Cr ₂₀
Ni-Fe-Mo	US1920	Ni-Fe-Mo Alloy Nanopowder, 99.9%, 40 nm, Ni ₈₀ -Fe ₁₆ -Mo ₄
Ni-Ti	US1369	Ni-Ti Alloy Nanopowder, 99.9%, 30-120 nm, Ni:Ti = 50:50
Si-Al	US1908	Si-Al Nanopowder, 99.9%, 40-100 nm, Si:Al = 50:50
Sn-Cu	US1469	Sn-Cu Alloy Nanopowder, 99.9%, 40 nm-100 nm, SN:CU = 9:1
Sn-Cu	US1470	Sn-Cu Alloy Nanopowder, 99.9%, 40 nm-100 nm, SN:CU = 1:9
Sn-Cu	US1471	Sn-Cu Alloy Nanopowder, 99.9%, 40 nm-100 nm, SN:CU = 92:8
Ti-Al-Cr	US1929D	Ti-Al-Cr Alloy Nanopowder, 99.9%, 40 nm, Ti:Al:Cr = 1/3:1/3:1/3
Ti-Si	US1928D	Ti-Si Alloy Nanopowder, 99.9%, 40 nm, Ti:Si = 5:5

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代理店

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