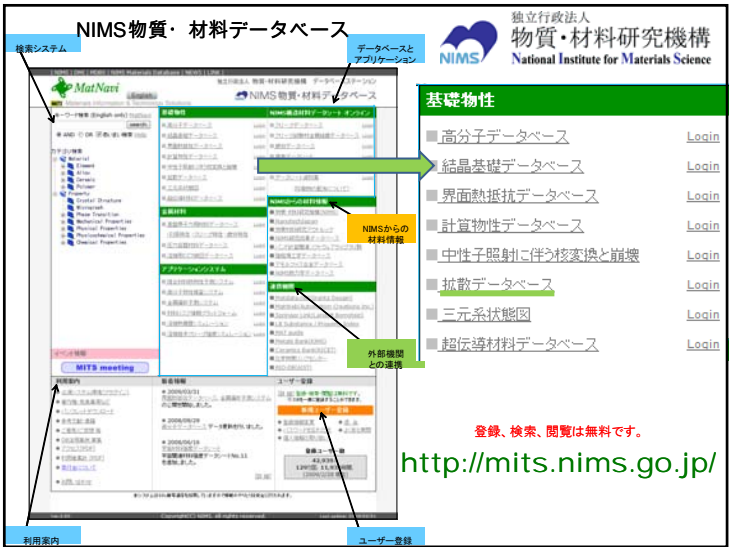


独立行政法人 物質・材料研究機構
拡散データベース
検索手順

NIMS物質・材料データベース



独立行政法人 物質・材料研究機構
National Institute for Materials Science

MatNavi

NIMS物質・材料データベース

データベースとアプリケーション

基礎物性

- 高分子データベース Login
- 結晶基礎データベース Login
- 界面熱抵抗データベース Login
- 計算物性データベース Login
- 中性子照射に伴う核変換と崩壊 Login
- 拡散データベース Login
- 三元系状態図 Login
- 超伝導材料データベース Login

NIMSからの材料情報

外部機関との連携

登録、検索、閲覧は無料です。
<http://mits.nims.go.jp/>

利用案内 ユーザー登録

NIMS HomePage | MITS HomePage | NIMS Database | News | Staff | Link

NIMS Diffusion Database

Diffusion Search Menu

- Basic Search
 - ByFD... From Periodic Table
 - Chemical Formula ByFD...
- Reference Search
 - Title
 - Author
 - Journal Name
 - Belonging
- Scientific Search
 - Metals
 - Pure Metals
 - Alloys
 - Intermetallic Compounds
 - Inorganic Compounds
 - Organic Compounds
 - Oxides
 - Waxes
 - Ca2SiO3
- Technological Search
 - Iron & Steels
 - Composites
 - Nonferrous Metals & Alloys
 - Polymers
 - Superconductors
 - Smart Composites
- Matrix Search
 - State
 - Solid
 - Liquid
 - Gas
 - Material
 - Element
 - Compound
- Diffusion & Mode Search
 - Atom
 - Compound
 - Diffusion Mode
- Advanced Search
 - Advanced Search

拡散データベース検索画面

NIMS Diffusion Search System - Windows Internet Explorer


https://mits.nims.go.jp/Research/Diffusion/Search_top.jsp?user=7

NIMS Diffusion Search System

Top Menu | Advanced Search | Periodic Table | Reference Search | Help

Quick Search | Basic Search | Chemical Formula

Select



周期表による検索

SI-Mat Diffusion Search System

Top Menu | **Advanced Search** | Periodic Table | Reference Search | Help

Clear | Reset | Search

Element or Chemical Formula:

Phase:

Measurement:

element composition

composition

D_0 [m²/sec]

Q [kJ/mol]

T_{min} [K]

T_{max} [K]

D [m²/sec]

T [K]

D formula [K]

Clear | Reset | Search

Element or Chemical Formula:

Category

intermetallic pure metals

metals alloys

inorganic compounds oxides

carbides nitrides

others

Category

organic compounds

iron & steels

nonferrous metals & alloys

semiconductors

ionic compounds

ceramics

polymers

Material:

Material Name:

Single Crystal: Ball Single crystal Amorphous Nanocrystalline

From Experiment: Ball Comp Oxide Oxide Oxide

Diffusant:

Diffusion Mode:

State:

http://handbook.jp/si-mat/ Diffusion Search System (http://www.sciencedirect.com/science/article/pii/S0927025603001113) 13/03/03

詳しい検索画面

SI-Mat Diffusion Search System

Top Menu | Advanced Search | Periodic Table | Reference Search | **Result** | Help

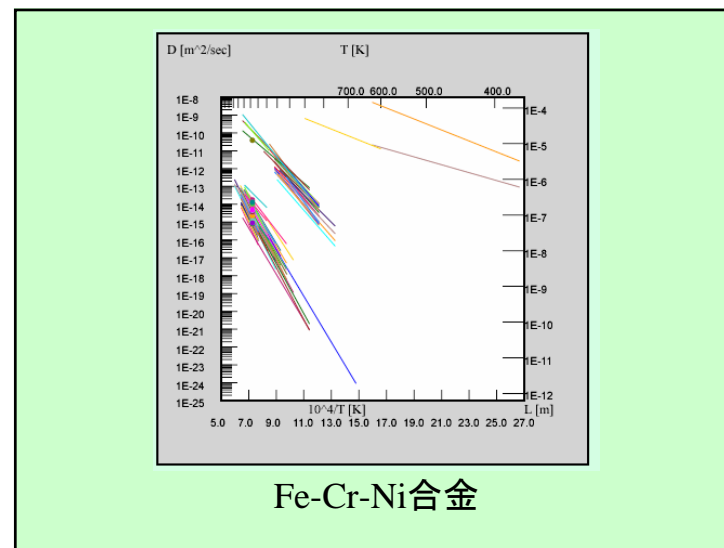
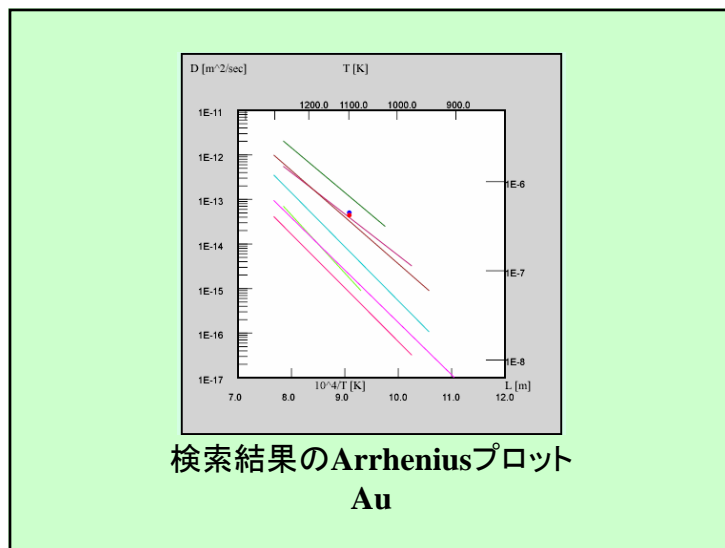
Frame Type A | Frame Type B | Result List | User Data | Arrhenius Plot | Basic Statistical Amount

result: 9

Material	Diffusant	D_0 [m ² /sec]	Q [kJ/mol]	T_{min} [K]	T_{max} [K]	D [m ² /sec]	T [K]	D formula	State	Phase	Diffusion Mode
<input checked="" type="checkbox"/>	Au	Fe				5.18E-14	1099		solid		impurity
<input checked="" type="checkbox"/>	Au	Fe				4.88E-14	1099		solid		impurity
<input checked="" type="checkbox"/>	Au	Fe	8.20E-6	174	973	1273			solid		impurity
<input checked="" type="checkbox"/>	Au	Mn	2.20E-6	154	1023	1273			solid		impurity
<input checked="" type="checkbox"/>	Au	Cr	2.80E-5	196	943	1303			solid		impurity
<input checked="" type="checkbox"/>	Au	V	2.20E-4	218	943	1303			solid		impurity
<input checked="" type="checkbox"/>	Au	Hf	5.00E-5	226	973	1303			solid		impurity
<input checked="" type="checkbox"/>	Au	Zr	1.10E-4	224	1073	1273			solid		impurity
<input checked="" type="checkbox"/>	Au	Ti	1.20E-4	222	903	1303			solid		impurity

Chemical Formula	Single Crystal	From Experiment	Material Name	Measurement	Composition	Reference Code	Comment
Au-1Fe	other	exp		sandwich technique:EPGA	Au-99.1:Fe-9	1997Richter-1	Grube's method
Au-0.1Fe	other	exp		sandwich technique:EPGA	Au-99.9:Fe-1	1997Richter-1	Grube's method
Au-0.1Fe	other	exp		sandwich technique:EPGA	Au-99.9:Fe-1	1997Richter-1	Grube's method
Au-0.1Mn	other	exp		sandwich technique:EPGA	Au-99.9:Mn-1	1997Richter-1	Grube's method
Au-0.1Cr	other	exp		sandwich technique:EPGA	Au-99.9:Cr-1	1997Richter-1	Grube's method
Au-0.1V	other	exp		sandwich technique:EPGA	Au-99.9:V-1	1997Richter-1	Grube's method
Au-1Hf	other	exp		sandwich technique:EPGA	Au-99.1:Hf-9	1997Richter-2	Grube's method
Au-1Zr	other	exp		sandwich technique:EPGA	Au-98.6:Zr-1.4	1997Richter-2	Grube's method
Au-0.2Ti	other	exp		sandwich technique:EPGA	Au-99.8:Ti-2	1997Richter-2	Grube's method

検索結果画面



Top Menu | **Advanced Search** | Periodic Table | Reference Search | Help

Title

Author

Journal Name

Belonging

Before

Year After

from to

Keyword

文献検索画面

Reference 著者「minamino」の検索結果

Result: 25

Title
Interdiffusion in aluminum-rich solid solution of Al-Cu alloys.
Interdiffusion in a dilute solid solution of Al-Li alloy measured by electrical resistance
Interdiffusion and its size effect in nickel solid solutions of Ni-Co, Ni-Cr and Ni-Ti systems
Diffusion of cobalt, chromium, and titanium in Ni3Al
Diffusion of copper, iron and silicon in Ni3Al
Effect of high pressure on diffusion in beta-Ti
Anomalous diffusion of aluminum in beta-titanium
Effect of high pressure on interdiffusion in Al-Cu-Zn alloys.
Interdiffusion in Al-Cu-Mg alloys under high pressure.
Pressure dependence of anomalous diffusion of zirconium in beta-titanium
Diffusion of copper in nanocrystalline Al-7.8at%Ti-0.3at%Fe alloy prepared by mechanical alloying
Interdiffusion and size effects in Ni-base binary alloys
Diffusion of platinum and molybdenum in Ni and Ni3Al
Quaternary diffusion in alpha solid solutions of Al-Zn-Mg-Cu system.
Diffusion of zinc in commercial Al-Zn alloys under high pressure.
Diffusion of manganese in Ni and Ni3Al
Al composition dependence of Pt, Mn and V diffusion in L12-type ordered Ni3Al
Pt diffusion in B2-type ordered NiAl intermetallic compound and its diffusion mechanisms.
Coalescence behavior of the antiphase domain in Ti3Al
In diffusion in B2-type ordered NiAl intermetallic compound
Quaternary diffusion in the alpha solid solutions of Al-Zn-Mg-Ag alloys
Diffusion of titanium in B2-type ordered NiAl compound
Interdiffusion in Co solid solutions of Co-Al-Cr-Ni system at 1423K
Interdiffusion in alpha solid solution of Al-Cu-Mg-Ag system
Diffusion of Si in Ti3Al intermetallic compound.

Author
Minamino, Y.; Yamane, T.; Takahashi, T.
Minamino, Y., Yamane, T., Araki, H.
Jung, S.B., Yamane, T., Minamino, Y., Hirao, K., Araki, H., Saji, S.
Minamino, Y., Jung, S.B., Yamane, T., Hirao, K.
Jung, S.B., Minamino, Y., Araki, H., Yamane, T., Hirao, K., Saji, S.
Minamino, Y., Araki, H., Yamane, T., Ogino, S., Saji, S., Miyamoto, Y.
Araki, H., Yamane, T., Minamino, Y., Saji, S., Hana, Y., Jung, S.B.
Takahashi, T.; Yamane, T.; Yamamoto, T.; Araki, H.; Minamino, Y.; Miyamoto, Y.
Takahashi, T.; Takahashi, A.; Araki, H.; Tanaka, T.; Minamino, Y.; Miyamoto, Y.; Yamane, T.
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Takahashi, T.; Minamino, Y., Asada, T., Jung, S.B., Yamane, T.
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Takahashi, T.; Miura, K.; Minamino, Y.; Hirao, K.; Yamane, T.
Hisayuki, K.; Yamane, T.; Takahashi, T.; Minamino, Y.; Hirao, K.; Araki, H.
Jung, S.B., Minamino, Y., Yamane, T.
Minamino, Y., Yoshida, H., Hirao, K., Yamane, T., Jung, S.B.
Minamino, Y.; Koizumi, Y.; Tsuji, N.; Morioka, M.; Hirao, K.; Shirai, Y.
Koizumi, Y.; Minamino, Y.; Nakano, T.; Umakoshi, Y.
Minamino, Y.; Koizumi, Y.; Inui, Y.
Takahashi, T.; Hisayuki, K.; Yamane, T.; Minamino, Y.
Minamino, Y.; Koizumi, Y.; Tsuji, N.; Yokoyama, S.
Minamino, Y.; Koizumi, Y.; Tsuji, N.; Yamada, T.; Takahashi, T.
Takahashi, T.; Hisayuki, K.; Yamane, T.; Minamino, Y.; Hino, T.
Koizumi, Y.; Sakakibara, Y.; Minamino, Y.; Tsuji, N.

著者「minamino」の検索結果 続

JournalName	Belonging	Year	Volume	Page
J. Mater. Sci. Lett.	Osaka Univ.	1995	4	797-798
Metall.Trans.A	Osaka Univ.	1987	18	1836-1838
J.Mater.Sci.Lett.	Osaka Univ.	1992	11	1838-1837
Metall.Trans.A	Osaka Univ.	1992	23	2788-2790
Diffus.Defect Data Part A Defect Diffus.Forum	Osaka Univ.	1993	95-98	859-864
Diffus.Defect Data Part A Defect Diffus.Forum	Osaka Univ.	1993	99-98	686-695
Metall.Mater.Trans.A	Osaka Univ.	1994	25	874-876
J. Metallkd	Mihama National College Tech.	1994	05	492-497
J. Jpn Inst. Met.	Mihama National College Tech.	1994	58	1364-1371
Metall.Mater.Trans.A	Osaka Univ.	1996	27	1807-1814
Mater.Trans.,JIM	Osaka Univ.	1996	37	130-137
J.High Temperature Society	Mihama National College of Technology	1996	22	121-128
Diffus.Defect Data Part A Defect Diffus.Forum	Osaka Univ.	1997	193-197	257-262
J. Jpn Inst. Met.	Mihama National College Tech.	1998	62	905-911
J. Mater. Sci.	Hiroshima Inst. Tech.	1999	34	2449-2454
J.Mater.Sci.Lett.	SungkyunKwan Univ.	1999	18	1063-1066
High Temp.Mater.Process	Osaka Univ.	1999	18	337-350
Science Technology Advanced Mater.	Osaka Univ.	2000	1	237-249
Diffus.Defect Data Part A Defect Diffus.Forum	Osaka Univ.	2001	194-199	577-582
Diffus.Defect Data Part A Defect Diffus.Forum	Osaka Univ.	2001	194-199	577-582
Diffus.Defect Data Part A Defect Diffus.Forum	Mihama National College of Technology	2001	194-199	236-240
J. High Temperature Soc.	Osaka Univ.	2002	28	323-328
Mater. Trans.	Osaka Univ.	2003	44	68-71
Mater. Trans.	Mihama National College Technol.	2003	44	2252-2257
Defect and Diffusion Forum	Osaka Univ.	2005	237-240	304-309

Top Menu | **Advanced Search** | Periodic Table | Reference Search | Help

Title ← 全文検索

Author

Journal Name

Belonging

Before

Year After

from to

Keyword

Reset Search

文献検索画面

Reference

Result: 23

Title
Tritium diffusion in 304- and 316-stainless steels in the temperature range 25 to 222degC
Grain boundary diffusion of tritium in 304- and 316-stainless steels
The diffusion of chromium in Type 316 stainless steel
Diffusion of manganese in Type 316 austenitic stainless steel
Deuterium trapping in irradiated 316 stainless steel
Hydrogen assisted cracking in Type 304L and 316L stainless steel
Diffusion of (59)Ni, (59)Zr, and (60)Co in 316 stainless steel
Lattice and grain-boundary diffusion of 59Fe in 316 stainless steel
Interdiffusion in the Type 316 austenitic stainless steel/iron system
Sorption of gaseous tritium on the surface of Type 316 stainless steel
Tritium solubility in SUS-316 stainless steel
Hydrogen permeation through Type 316 stainless steels and ferritic steel for a fusion reactor
Hydrogen diffusion and solution at high temperatures in 316L stainless steel and nickel-base heat-resistant alloy
Interaction of hydrogen isotopes with stainless steel 316L
Surface reaction and bulk diffusion of tritium in SUS-316 stainless steel
Hydrogen transport and solubility in 316F and L-4914 steels for fusion reactor applications
Deuterium permeability of the austenitic stainless steel AISI 316
Hydrogen in 316 steel -diffusion, permeation and surface reaction
Hydrogen permeation in 304 and 316 steels:Transport mechanisms in oxide layers
The behavior of diffusion and permeation of tritium through 316L stainless steel
Multicomponent diffusion in AISI type 316 stainless-steel
Formation of bubbles in helium implanted 316L stainless steel at temperatures between 25 and 550degC
Low temperature grain boundary diffusion of chromium in SUS316 and 316L stainless steels.

「316」を検索語とした結果

Periodic Table | Reference Search | **Result** | Help

Author	JournalName	Belonging	Year	Volume	Page	Comment
Austin, J.R.	J.Met.Mater.		1972	40	119-123	
Caldes, R.D., ELLMAN, T.S., TENGHER, K.	J.Met.Mater.	South Carolina State Univ.	1972	46	46-52	
INOKA, K.	Met.Sci.	Berkley Nuclear Lab.	1976		278-279	
INOKA, K., KANE, S.	Met.Sci.	Berkley Nuclear Lab.	1976		121-124	
WILSON, R.L.	J.Met.Mater.		1977	74	291-297	
WILSON, R.	Hydrog.Eff.Met.		1980		345-374	
PAUL, R.V., TAYLOR, G.F., SHAMA, S.D.	Met.Sci.	Shahba Atomic Research Centre	1980	14	325-329	
PAUL, R.V., SHAMA, S.D.	Met.Sci.	Shahba Atomic Research Centre	1980	14	330-332	
SHANMUGAN, V., SETHURAMAN, V., RAGHURAMAN, V.S.	J.Met.Mater.		1980	118	311-319	
MIZOHAYASHI, T.	J.Met.Mater.		1974	120	309-310	
SHINAKI, H.	J.Met.Mater.		1984	120	36-40	
MAHAMMED, E., HASE, T.	J.Met.Mater.		1980	103	229-231	
YOSHIMOTO, H., TAKABA, T., SUZUKI, T., YAMADA, K.	J.Met.Mater.		1988	127	1-9	
SEITZ, F., CAMPOLIVAN, J., COLLINS, H., SABBONE, G., SARTORI, R.	Fusion Technol.		1983		2144-2151	
SHINAKI, H.	J.Met.Mater.		1980	103	229-231	
FRANCY, R.S.	J.Met.Mater.		1980	100	117-124	
FRANCY, R.S.	J.Met.Mater.		1980	102	39-40	
FRANCY, D.H.	J.Met.Mater.		1988	182	139-148	
FRANCY, D.	J.Phys.Chem.Slow Frige		1989	104	1393-1395	
CHANG, S.	J.Met.Mater.		1981	179	162-164	
SHANMUGAN, V.	Trans. Indian Inst. Met.	Indira Gandhi Centre for Atomic Research	1980	48	243-245	
SHANG, C.H., CHEN, R.Q., WANG, Y.S., FU, J.S., SHEN, D.Y.	J.Met.Mater.	Acad.Janosa	1997	249	210-216	
SHIBAZUMI, H., YAMAZAKI, Y., ISHIDA, Y., AIZOKA, K.	Metall. Trans.	Tohoku Univ.	2004	35	2948-2950	

「316」を検索語とした結果 続

Your Data

Material measurement

D₀ Q T_{max} T_{min}

one-point data

D T

comment

Reset OK

Clear

Back

ユーザーのデータ挿入画面