

論文等リスト

【シミュレーション関係】

題目	著者	学会誌	巻、号、頁	年
Computer Simulation of Grain Growth under the Existence of a Liquid Phase	H. Matsubara, K. Furukawa and R.J. Brook	Fourth Euro-Ceramics, European Ceramic Society	Vol.3 pp.529-536	(1995).
Computer Simulation of Sintering Process of Solid Particles	H. Matsubara, K. Furukawa and R.J. Brook	Fourth Euro-Ceramics, European Ceramic Society	Vol.3 pp.597-604	(1995).
Computer Simulation of Percolation Structure in Composites	A. Ishida, H. Matsubara, K. Furukawa, M. Miyayama and H. Yanagida	J. Ceram. Soc. Japan	103[10] pp.996-999	(1995).
Computer Simulation of Grain Growth during Liquid Phase Sintering	H. Matsubara and R. J. Brook	Sintering Technology	pp.415-422	(1995).
Computational Modeling of Mass Transfer for Ceramic Microstructure	H. Matsubara and R. J. Brook	Ceramic Transactions, Am. Ceram. Soc.	Vol.71pp.403-418	(1996).
Computational Modeling of Sintering Process in Ceramics	H. Matsubara and R.J. Brook	Key Engineering Materials Volumes, Euro Ceramics V, Trans Tech Publications, Switzerland	pp.710-713	(1997).
Experimental and Computational Study for Grain Growth in AlN Based Ceramics	M. Tajika, H. Matsubara and W. Rafaniello	Key Engineering Materials Volumes, Euro Ceramics V, Trans Tech Publications, Switzerland	pp.896-899	(1997).
Gas Evolution from Advanced Ceramics during Fracture under Ultra-High Vacuum	S. Kitaoka, H. Matsubara, H. Kawamoto, H. Yanagida, H. Matsumoto and M. Kanno	Ceramic Engineering & Science Proceedings, Amer. Ceram. Soc.	Vol.18 No.4 pp.201-208	(1997).
Experimental and Computational Study of Grain Growth in AlN Based Ceramics	M. Tajika, H. Matsubara and W. Rafaniello	J. Ceram. Soc. Japan	Vol.105 No.11pp.928-933	(1997).
Computational Modeling of Sintering and Grain Growth for Microstructural Design	H. Matsubara, S. Kitaoka and H. Nomura	Proceedings of 6th International Symposium on Ceramic Materials & Components for Engines	pp.654-657	(1997).
Computer Simulation of Grain Growth of Silicon Nitride	Y. Okamoto, N. Hirotsuki and H. Matsubara	Proceedings of 6th International Symposium on Ceramic Materials & Components for Engines	pp.838-841	(1997).
MD Simulations of Oxygen Diffusion Along Grain Boundaries in Cubic Zirconia	C.A.J. Fisher and H. Matsubara	Proceedings of 6th International Symposium on Ceramic Materials & Components for Engines	pp.832-837	(1997).
複相組織における加成反応過程のコンピュータシミュレーション	北岡諭, 松原秀彰	日本セラミックス協会学術論文誌	106巻3号322-326頁	(1998).
粒成長組織におけるき裂伝電経路のコンピュータシミュレーション	北岡諭, 松原秀彰, 河本洋	日本セラミックス協会学術論文誌	106巻4号422-427頁	(1998).
Oxide Ion Diffusion Along Grain Boundaries in Zirconia : A Molecular Dynamics Study	C. Fisher and H. Matsubara	Solid State Ionics, Elsevier	Vol.113-115 pp.311-318	(1998).
Computational Modeling for the Design of Complex Microstructure in Ceramics	H. Matsubara, S. Kitaoka and H. Nomura	Ceramic Transactions, Am. Ceram. Soc.	Vol.99 pp.51-63	(1998).
Modeling of Microstructures in Liquid-Phase Sintered Ceramics	H. Suzuki and H. Matsubara	Ceramic Transactions, Am. Ceram. Soc.	Vol.99 pp.527-536	(1998).

Molecular Orbital Calculations on Atomic Structure and Chemical Bonding State in Si-N-C Amorphous Ceramics	K. Matsunaga, H. Matsubara and H. Yanagida	Proceedings of the Fifth International Conference on Inorganic Membranes Nagoya	pp.660-663	(1998).	
Computational Modeling of Ceramic Microstructure by MC And MD Methods	Hideaki Matsubara, Hiroshi Nomura, Atsushi Honda and Katsuyuki Matsunaga	Ceramic Transactions, Am. Ceram. Soc.	Vol.99 pp.97-106	(1998).	
Computer Simulation of Sintering and Grain Growth	H. Matsubara	J. Korean Powder Metallurgy Institute	Vol.5 324-328.	(1998).	
分子動力学法による α -アルミナの表面・粒界の計算	鈴木 寛, 松原秀彰, 岸野 淳, 近藤鋭治	日本セラミックス協会学術論文誌	106巻12号1215-1221頁	(1998).	
Modeling of Crack Propagation in Monolithic and Particle Dispersed Structure	S. Kitaoka and H. Matsubara	Ceramic Transactions, Am. Ceram. Soc.	Vol.99 pp.441-452	(1998).	
Computer Simulation for the Design of Microstructural Development in Ceramics	H. Matsubara	Computer Materials Science, Elsevier	Vol.14 pp.125-128	(1999).	
Molecular Dynamics Investigations of Grain Boundary Phenomena in Cubic Zirconia	C.A.J. Fisher and H. Matsubara	Computer Materials Science, Elsevier	Vol.14 pp.177-184	(1999).	
Design of Ceramic Microstructures by the Monte Carlo Simulations	H. Matsubara, H. Nomura and S. Kitaoka	Key Engineering Materials Ceramics Society of Japan	Vols.161-163 pp.35-38	(1999).	
Microstructural Design of Grain Boundaries in Alumina Based Ceramics	H. Suzuki and H. Matsubara	Key Engineering Materials Ceramics Society of Japan	Vols.161-163 pp.453-456	(1999).	
Grain Growth and Microstructural Development in AlN Ceramics	M. Tajika and H. Matsubara	Proc. International Synposium on Aluminium Nitride Ceramics Processing and Evaluation	1998, to be submitted.		
Microstructural Design in Alumina Based Ceramics by Computer Simulation	H. Suzuki and H. Matsubara	Proc. of CINTEC'98 9th International Conference on Modern Materials & Technologies	pp.471-478	(1999).	
Microstructural Development in AlN Composite Ceramics	M. Tajika, H. Matsubara and W. Rafaniello	Nanostructured Materials Elsevier	Vol.12 pp.131-134	(1999).	
Effect of Grain Contiguity on Thermal Diffusivity of Aluminum Nitride	M. Tajika, H. Matsubara and W. Rafaniello	J. Am. Ceram. Soc.	Vol.82 pp.1573-75	(1999).	
Computational Modeling of Ceramic Microstructure by MC and MD - Aspect in Dynamics	H. Matsubara	Key Engineering Materials Ceramics Society of Japan	Vol.166 pp.1-8	(1999).	
The Influence of Grain Boundary Misorientation on Ionic Conductivity in YSZ	C.A.J. Fisher and H. Matsubara	J. Eur. Ceram. Soc.	Vol.19 pp.703-707	(1999).	
Computational Modeling of Grain Growth in Self-reinforced Silicon Nitride	Y. Okamoto, N. Hirosaki and H. Matsubara	J. Ceram. Soc. Japan	Vol.107 pp.109-114	(1999).	
A Study of Grain Growth and Microstructure Control in Silicon Nitride by Computer Simulation	Y. Okamoto, N. Hirosaki and H. Matsubara	Materials Research Society Meeting Proceedings	Vol.538 pp.251-255	(1999).	
Molecular Orbital Calculations on Atomic Structures of Si-Based Covalent Amorphous Ceramics	K. Matsunaga and H. Matsubara	Materials Research Society Meeting Proceedings	Vol.538 pp.567-571	(1999).	
Mg, Ca, Siを偏析させたAl ₂ O ₃ 粒界の分子動力学法計算	鈴木 寛, 松原秀彰	日本セラミックス協会学術論文誌	107巻8号727-732頁	(1999).	
Molecular dynamics study of atomic structure in amorphous Si-C-N ceramics	Katsuyuki Matsunaga, Yuji Iwamoto, Craig Fisher and Hideaki Matsubara	J. Ceram. Soc. Japan	Vol.107 pp.1025-1031	(1999).	

Use of Computer Simulation to Aid the Understanding of Microstructural Changes Observed in Heat-Treated AlN Ceramics	M. Tajika, H. Matsubara and W. Rafaniello	J. Ceram. Soc. Japan	Vol.107 pp.1156-1159	(1999).	
Microstructures and Properties in AlN-TiN Composite Ceramics	M. Tajika, H. Matsubara and W. Rafaniello	Materials Letters	Vol.41pp.139-144	(1999).	
Microstructure Design for Ken-Materials Using Computer Simulation	Hideaki Matsubara, Hiroshi Nomura, Soon-Gi Shin, Yoshiki Okuhara and Hiroaki Yanagida	Trans. MRS-J	Vol.25[2] pp.597-600	(2000).	
Ionic Conductivity at Interfaces in Yttria-Stabilized Zirconia:A Computer Simulation Study	C.A.J. Fisher and H. Matsubara	Trans. MRS-J	Vol.25[2] pp.601-604	(2000).	
Molecular Dynamics Simulations of Surfaces and Grain Boundaries in Yttria-Stabilized Zirconia	C.A.J. Fisher and H. Matsubara	Ceramic Transactions, Am. Ceram. Soc.	Vol.118 pp.49-56	(2000).	
Atomistic Computer Simulations of Amorphous Silicon Nitride Based Ceramics	K. Matsunaga and H. Matsubara	Ceramic Transactions, Am. Ceram. Soc.	Vol.118 pp.57-62	(2000).	
Tersoff Potential Parameters for Simulating Cubic Boron Carbonitrides	K. Katsuyuki,C.Fisher and H, Matsubara	Jpn.J.Appl.Phys.	pp.L48-L51	(2000).	
アルミナ系セラミックスの粒界ガラス相の分子動力学計算	本多淳史, 松永克志, 松原秀彰	日本金属学会誌	64巻11号、pp1113-1119	(2000).	
Molecular Orbital Calculations of Chemical Bonding States of Solute Elements in Amorphous Silicon Nitride Ceramics	K. Matsunaga, Y. Iwamoto and H. Matsubara	J. Mater.Res	Vol.15 No.2 pp.429-436	(2000).	
Design and Development of Self-diagnosis Composites Containing Electrically Conductive Phase	H.Matsubara,Y.Okuhara and H.Yanagida	Journal of Advanced Science	Vol.12 No3 pp.275-280	(2000).	
Experimental and Simulation Studies on Grain Growth in TiC- and WC-Based Cermets during Liquid Phase Sintering	S-G. Shin	Metals and Materials	Vol.6 No.3 pp.195-201	(2000).	
Experimental and Computational study of Grain Growth and Microstructures in AlN Composite Ceramics	M. Tajika, H.Nomura,H. Matsubara and W. Rafaniello	J. Ceram. Soc. Japan	Vol.109 pp.288-293	(2001).	
Development of Synergistic AlN Ceramics by Simultaneous Addition of BN and TiN	M. Tajika, H. Matsubara, W. Rafaniello and J. HoJo	J. Materials Science Letters	Vol.20 pp.201-203	(2001).	
3D Simulations of Sintering and grain growth by the Monte Carlo Method	M.Shimizu,H.Nomura,H.Matsubara and K.Mori	Simulations of Materils Processing:Theory,Methods and Applications	pp.233-238	(2001).	
Finite Element Simulation of Sintering of Powder Compact Using Shrinkage Curve Obtained by Monte Carlo Method	K.Mori,H.Matsubara and M.Umeda	Simulations of Materils Processing:Theory,Methods and Applications	pp.239-244	(2001).	
Computational Modeling and Design for Continuous Conductive Structures in Self-Diagnosis Composite	Hiroshi Nomura, Hideaki Matsubara, Atsumu Ishida, Yoshiki Okuhara, Soon-Gi Shin and Hiroaki Yanagida	Proc. of SPIE	Vol.4234 pp.292-299	(2001).	
Computational study on grain growth in cemented carbides	J,Kishino, H.Nomura, S.-G. Shin, H. Matsubara and T.Tanase	International Journal Refractory Metals & Hard Materials	Vol.20 pp.31-40	(2002).	
粒成長する固相-液相組織における相連続性の計算機モデリング	清水正義, 松原秀彰, 野村浩, 奥原芳樹, 富岡秀雄	日本セラミックス協会学術論文誌	Vol.110, No.12, pp.1067-1072	(2002).	
焼結・粒成長する多孔体組織における相連続性の計算機モデリング	清水正義, 松原秀彰, 野村浩, 富岡秀雄	日本セラミックス協会学術論文誌	Vol.111, No3,pp.205-211	(2003).	
モンテカルロ法と有限要素法の連成による焼結のマイクロ-マクロシミュレーション	森謙一郎, 松原秀彰, 野口寛洋, 清水正義, 野村浩	日本セラミックス協会学術論文誌	Vol.111, No7,pp.516-520	(2003).	

Design of Grain Oriented Microstructure by Using the Monte Carlo Simulation of Sintering and Grain Growth; Isotropic Grain Growth	Hiroshi ITAHARA, Hiroshi NOMURA, Toshihiko TANI and Hideaki MATSUBARA	日本セラミックス協会学術論文誌	Vol.111, No8,pp.548-554	(2003).	
Micro-macro simulation of sintering process by coupling Monte Carlo and finite element methods	K. Mori, H. Matsubara, N. Noguchi	International Journal of Mechanical Science	46(2004), 841-854	2004	
Computer simulation of nano-pore formation in EB-PVD thermal barrier coatings	M. YOSHIYA, K. WADA, B. K. JANG and H. MATSUBARA	Surf. Coat. Tech.	187, pp.399-407	(2004)	
Perturbed Molecular Dynamics for Calculating Thermal Conductivity of Zirconia	Masato YOSHIYA, Akihiko HARADA, Munetaka TAKEUCHI, Katsuyuki MATSUNAGA and Hideaki MATSUBARA	Mol. Sim.	投稿中		
Molecular Dynamics Simulations of Interfaces Between NiO and ZrO ₂	Craig Fisher and Hideaki Matsubara	Philosophical Magazine	vol. 85 [10] pp.1067-1088	(2004)	
Computer Simulation Studies on Sintering and Grain Growth	H. Matsubara	Journal of the Ceramic Society of Japan	Vol.113[4] pp.263-268	(2005)	
摂動分子動力学法による純粋およびY ₂ O ₃ 添加ZrO ₂ における熱伝導度の異方性	吉矢真人、松原秀彰	日本金属学会誌	第69巻、第1号、61-66頁	(2005)	
Thermal Conductivity of Zirconia for Thermal Barrier Coatings: A Perturbed Molecular Dynamics Study	M. Yoshiya, M. Matsumoto, A. Harada M. Takeuchi and H. Matsubara	Key Engineering Materials	Vol. 317-318, pp. 512-524	(2006)	
Computational Design for Grain-Oriented Microstructure of Functional Ceramics Prepared by Templated Grain Growth	H. Itahara, T. Tani, H. Nomura and H. Matsubara	J. Am. Ceram. Soc.	89 [5] pp.1557-1662	(2006)	
焼結シミュレーション	松原秀彰	粉末冶金技術戦略マップ	粉体粉末冶金協会創立50周年記念事業、2007年11月	(2007)	別刷りなし
異方的表面エネルギーをもつ結晶粒子からなる多孔体構造の焼結シミュレーションによる解析	清水正義、野村 浩、松原秀彰、Soon-Gi Shin	粉体および粉末冶金	第55巻、第1号、別冊、pp.3-9	(2008)	
分子動力学法によるアルミナーガラス系における界面エネルギーと拡散挙動の解析	松本 修次、松原 秀彰、本多 淳史	粉体および粉末冶金	66, (6), pp.266-274.	(2019)	
モンテカルロ法による液相存在下の焼結の計算機シミュレーション	松本 修次、松原 秀彰、清水 正義、野村 浩	粉体および粉末冶金	66, (6), pp.259-265.	(2019)	
超微粒超硬合金の曲げ破壊の実験とDEMシミュレーション	加藤 大夢、松原 秀彰、寺坂 宗太、高田 真之、上高原 理暢	粉体および粉末冶金	69, pp.249-256.	(2022)	
金属-ガラス混合粉末の液相焼結の実験および計算機シミュレーションの解析	田中 裕幸、松原 秀彰、横田 英明、井口 俊宏、野村 浩	粉体および粉末冶金	69, pp.239-248.	(2022)	
チタン酸バリウム焼結体の高温圧縮変形解析とFEMシミュレーション	田中 裕幸、松原 秀彰、横田 英明、井口 俊宏、高城 有子、野村 浩、寺坂 宗太、伊岐見 大輔	粉体および粉末冶金	WEB早期公開[2024/2/23]	(2024)	
複層体の共焼結および拘束焼結に関するMC・FEM連携シミュレーション	松本 修次、松原 秀彰、寺坂 宗太、青木 英彦、清水 正義、野村 浩、上高原 理暢	粉体および粉末冶金	WEB早期公開[2024/04/25]	(2024)	