

研究業績 (HP 用)

創域理工学部先端化学科 井手本 康

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- 1) 井手本 康, 小浦延幸; AI の陽極溶解形態のコンピューターシミュレーション 化学溶解と局部陽極溶解の導入, 金属表面技術, 37(1), p. 30-p. 35 (1986).
- 2) 井手本 康, 小浦延幸; 局部陽極溶解理論を取り入れた AI の陽極溶解形態のコンピューターシミュレーション (その 1) 深さ方向へのピット成長; 金属表面技術, 37(12), p. 689-p. 693 (1986).
- 3) 井手本 康, 小浦延幸; 局部陽極溶解理論を取り入れた AI 陽極溶解形態のコンピューターシミュレーション (その 2) 横方向へのピット成長とピット分布, 金属表面技術, 38(4), p. 154-p. 159 (1987).
- 4) T. Kokubo, Y. Idemoto, Y. Kawabe and K. Uenishi, Design of Positive Photoresist for Submicron Imaging Assisted by SAMPLE Simulation, Proceedings of SPIE – Advances in Resist Technology and Processing V, 920, p. 355-p. 363 (1988).
- 5) K. Fueki and Y. Idemoto, High Tc Superconducting Oxides and Solid State Chemistry, Proc. 11th Seminar on Science and Technology – Symp. High Temperature Superconductor -, p. 147-p. 161 (1989).
- 6) K. Fueki, Y. Idemoto and H. Ishizuka, Oxygen Nonstoichiometry of $\text{Y}(\text{Ba}_{1-x}\text{Sr}_x)_2\text{Cu}_3\text{O}_{7-\delta}$, *Physica C*, 166(3&4), p. 261-p. 265 (1990).
- 7) Y. Idemoto, K. Fueki and T. Shinbo, T-log P_{O_2} Diagram and Copper Valence of $\text{Nd}_{1.85}\text{Ce}_{0.15}\text{Cu}_{4-\delta}$, *Physica C*, 166(5&6), p. 513-p. 517 (1990).
- 8) Y. Idemoto and K. Fueki, Oxygen nonstoichiometry and valences of bismuth and copper in $\text{Bi}_{2.00}\text{Sr}_{1.88}\text{Ca}_{1.00}\text{Cu}_{2.14}\text{O}_y$, *Physica C*, 168(1&2), p. 167-p. 172 (1990).
- 9) K. Fueki and Y. Idemoto, High Tc Superconducting Oxides and Solid State Chemistry, *Mol. Cryst. Liq. Cryst.*, 184, p. 1-p. 8 (1990).
- 10) Y. Idemoto and K. Fueki, Defect Thermodynamics of $(\text{La}_{1-x}\text{Sr}_x)_2\text{Cu}_0_{4-\delta}$, *Jpn. J. Appl. Phys.*, 29(12), p. 2725-p. 2728 (1990).
- 11) Y. Idemoto and K. Fueki, Melting Point of Superconducting Oxides as a Function of Oxygen Partial Pressure, *Jpn. J. Appl. Phys.*, 29(12), p. 2729-p. 2731 (1990).
- 12) Y. Idemoto and K. Fueki, Solid State Chemistry of Bi-Sr-Ca-Cu-O Superconductors, Proc. 2nd EurAsia Conf. Chem., p. 157-p. 158 (1990).
- 13) K. Fueki and Y. Idemoto, Defect Chemistry of High Tc Super-conductors, *Mat. Res. Soc. Proc.*, 209, p. 783-p. 788 (1991).
- 14) Y. Idemoto, S. Fujiwara and K. Fueki, High Temperature Conductivity of 2212 phase of Bi-Sr-Ca-Cu-O Superconducting Oxide, *Physica C*, 176(4-6), p. 325-p. 330 (1991).
- 15) Y. Idemoto, K. Fueki and M. Sugiyama, Diffusion Coefficients of Oxygen in $\text{Nd}_2\text{Cu}_0_{4-\delta}$, *J. Solid State Chem.*, 92(2), p. 489-p. 495 (1991).
- 16) Y. Idemoto, S. Fujiwara and K. Fueki, High Temperature Conductivity of 2223 phase of Bi-Sr-Ca-Cu-O Superconducting Oxide, *Physica C*, 179(1-3), p. 96-p. 100 (1991).
- 17) Y. Idemoto, S. Ichikawa and K. Fueki, Oxygen Nonstoichiometry of 2223 phase Bi-Pb-Sr-Ca-Cu-O system Superconducting Oxide, *Physica C*, 181(1-3), p. 171-p. 178 (1991).
- 18) K. Fueki, Y. Idemoto and M. Sugiyama, Diffusion Coefficients of Oxygen in $(\text{La}_{0.88}\text{Sr}_{0.12})_2\text{Cu}_0_{4-\delta}$ and $(\text{Nd}_{0.669}\text{Ce}_{0.136}\text{Sr}_{0.195})_2\text{Cu}_0_{0.974}\text{O}_{4-\delta}$, *Ann. Chim. Fr.*, 16, p. 423-p. 435 (1991).

- 19) Y. Idemoto and K. Fueki, Defect Thermodynamics of $Nd_{2-x}Ce_x CuO_4-\delta$, Jpn. J. Appl. Phys., 30(10), p. 2471-p. 2476(1991).
- 20) K. Fueki, Y. Idemoto and H. Tokunaga, Substitution of Allovalent Ions for Cations in the (2201) and (2212) Phases and its Effect on T_c , Physica C, 185-189, p. 679-p. 680(1991).
- 21) K. Fueki, Y. Idemoto and T. Yamauchi, Defect Chemistry of $BaPb_{1-x}Bi_x O_3$, Physica C, 190(1&2), p. 6-p. 8(1991).
- 22) Y. Idemoto and K. Fueki, Oxygen Nonstoichiometry and High Temperature Conductivity of 2201 phase Bi-Sr-Cu-O system Superconducting Oxide, Physica C, 190(4), p. 502-p. 510(1992).
- 23) Y. Idemoto, J. Takahashi and K. Fueki, Standard enthalpies of formation of member oxides in the Y-Ba-Cu-O system. Physica C, 194(1&2), p. 177- p. 186(1992).
- 24) H. Ishizuka, Y. Idemoto and K. Fueki, Oxygen nonstoichiometry and high -temperature conductivity of $DyBa_2Cu_3O_{7-\delta}$, Physica C, 195(1&2), p. 145- p. 156(1992).
- 25) Y. Idemoto, I. Oyagi and K. Fueki, Determination of Thermo-dynamic Data of $Ln_{1.85}Ce_{0.15}CuO_4$ and Ln_2CuO_4 ($Ln=Nd, Sm, Eu$) by the EMF Method, Physica C, 195(3&4), p. 269-p. 276(1992).
- 26) Y. Idemoto, K. Shizuka and K. Fueki, Calorimetric Measurement on Standard Enthalpies of Formation of $Ln_{1.85}Ce_{0.15}CuO_4$ ($Ln=Nd, Sm, Eu$ and Gd) and Ln_2CuO_4 , Physica C, 199(1&2), p. 184 -p. 190 (1992).
- 27) Y. Idemoto, I. Ohyagi and K. Fueki, Thermodynamic Study on the Y-Ba-Cu-O Systems by the EMF Method, Physica C, 199(1&2), p. 207-p. 216(1992).
- 28) Y. Idemoto, Y. Iwata and K. Fueki, Oxygen content and T_c of $Ba_{0.6}K_{0.4}Bi O_{3-\delta}$, Physica C, 201 (1&2), p. 43-p. 49(1992).
- 29) Y. Idemoto, Y. Itoh and K. Fueki, Oxygen nonstoichiometry and high - temperature conductivity of Nd-Ce-Sr-Cu-O superconducting oxide, Physica C, 202(1&2), p. 127-p. 133(1992).
- 30) H. Ishizuka, Y. Idemoto and K. Fueki, Oxygen nonstoichiometry and high temperature conductivity of $YBa_2Cu_4O_y$, Physica C, 204(1&2), p. 55-p. 64 (1992).
- 31) K. Fueki and Y. Idemoto, Defect Chemistry of High T_c Superconducting Oxides, Advances in Superconductivity IV, Proc. of 4th International Symposium on Superconductivity (ISS' 91) (Springer-Verlag, Tokyo, 1992) p. 261-p. 266.
- 32) K. Fueki and Y. Idemoto, Oxygen content and its related properties of high T_c superconductors, Appl. Superconductivity, 1(3-6), p. 549-p. 557 (1993).
- 33) H. Ishizuka, Y. Idemoto and K. Fueki, Determination of CT gap of $Nd_2CuO_{4-\delta}$ Single Crystal by the High Temperature Conductivity Measurement, Physica C, 209(4), p. 491-p. 498(1993).
- 34) Y. Idemoto, T. Muroga and K. Fueki, Electronic Structure of $(Nd, Ce)_2(Ba, Nd)_2 Cu_3O_y$, Physica C, 210(3&4), p. 315-p. 324(1993).
- 35) Y. Idemoto, K. Shizuka, Y. Yasuda and K. Fueki, Standard Enthalpies of Formation of Member Oxides in the Bi-Sr-Ca-Cu-O System, Physica C, 211(1&2), p. 36-p. 44(1993).
- 36) Y. Idemoto, H. Tokue and K. Fueki, Thermodynamic Study on $(La_{1-x}Sr_x)_2CuO_{4-\delta}$ by the EMF Measurement, Denki Kagaku, 61(7), p. 753-p. 755(1993).
- 37) K. Fueki and Y. Idemoto, Electronic Structure of $DyBa_2Cu_3O_y$ Superconductor, Ann. Chim. Fr., 18, p. 345-p. 351(1993).
- 38) Y. Idemoto, Y. Iwata and K. Fueki, Oxygen Nonstoichiometry and Super-conduction of $(Ba_{1-x}K_x)BiO_y$, in Low Temperature Electronics and High Temperature Superconductivity, S. I. Raider, C. Claeys, D. P. Foty, T. Kawai and R. K. Kirschman Editors, PV93-22, The Electrochemical Society Proceedings Serires, Pennington, NJ, p. 420-p. 428(1993).
- 39) K. Fueki and Y. Idemoto, Critical Temperature and Oxygen Nonstoichiometry of High T_c Superconductors, in Low Temperature Electronics and High Temperature Superconductivity,

- S. I. Raider, C. Claeys, D.P. Foy, T. Kawai and R.K. Kirschman Editors, PV93-22, The Electrochemical Society Proceedings Series, Pennington, NJ, p. 411-p. 419 (1993).
- 40) Y. Idemoto, Y. Iwata and K. Fueki, Defect chemistry of $\text{Ba}_{1-x}\text{K}_x\text{BiO}_y$ superconductor, *Physica C*, 222(3&4), p. 257-p. 266 (1994).
- 41) Y. Idemoto, K. Uchida and K. Fueki, Anisotropic Diffusion of Oxygen in $\text{Nd}_2\text{CuO}_{4-\delta}$, *Physica C*, 222(3&4), p. 333-p. 340 (1994).
- 42) Y. Idemoto, K. Shizuka and K. Fueki, Determination of Standard Enthalpies of Formation of Member Oxides in the Pb System, *Physica C*, 225(1&2), p. 127-p. 135 (1994).
- 43) Y. Idemoto, S. Kobayashi and K. Fueki, Phase diagrams, ionic defects in 2212 and 2201 phases of Bismuth system, *Physica C*, 229(1&2), p. 47-p. 58 (1994).
- 44) Y. Idemoto, M. Ohara and K. Fueki, Oxygen nonstoichiometry and T_c of $\text{La}_{2-x}\text{M}_x\text{M}'\text{Cu}_2\text{O}_y$, *Physica C*, 229(3&4), p. 361-p. 371 (1994).
- 45) Y. Idemoto, H. Tokunaga and K. Fueki, Effect of La substitution on T_c and electronic structure of Bi 2201 phase, *Physica C*, 231(1&2), p. 37-p. 49 (1994).
- 46) K. Fueki and Y. Idemoto, Important role of nonstoichiometric oxygen in superconduction of oxides, *Trans. Mat. Res. Soc. Jpn.*, 19A, p. 287-p. 292 (1994).
- 47) Y. Idemoto, Y. Yasuda and K. Fueki, Calorimetric study on thermodynamic stability of $\text{La}_{2-x}\text{M}_x\text{M}'\text{Cu}_2\text{O}_y$ ($\text{M}, \text{M}'=\text{Sr}, \text{Ca}$) solid solution, *Physica C*, 241(3&4), p. 323-p. 328 (1995).
- 48) Y. Idemoto, Y. Yasuda and K. Fueki, Thermodynamic stability of $(\text{La}_{1-x}\text{M}_x)_2\text{CuO}_y$ ($\text{M}=\text{Ba}, \text{Sr}$ and Ca) solid solution and 1/8 anomaly, *Physica C*, 243(1&2), p. 35-p. 42 (1995).
- 49) Y. Idemoto, H. Tokue and K. Fueki, EMF study on thermodynamic stability and 1/8 anomaly of $(\text{La}_{1-x}\text{M}_x)_2\text{CuO}_{4-\delta}$ ($\text{M}=\text{Ba}, \text{Sr}$ and Ca) solid solution, *Physica C*, 243(1&2), p. 43-p. 52 (1995).
- 50) Y. Idemoto, T. Toda and K. Fueki, Comparison of Bi-rich and Cu-rich oxides of Bi-2212 phase, *Physica C*, 249, p. 123-p. 132 (1995).
- 51) H. Negishi, N. Koura, Y. Idemoto and M. Ishikawa, Preparation of TB(S)CCO Superconductor Coating by Electrophoretic Deposition Method, *Jpn. J. Appl. Phys.*, 35, p. 4302-p. 4306 (1996).
- 52) N. Koura, T. Endo and Y. Idemoto, The electrodeposition of amorphous Co-Zn alloy from ambient temperature molten salt electrolytes, *J. Non-Cryst. Solids*, 205-207, p. 650-p. 655 (1996).
- 53) K. Ui, N. Koura, Y. Idemoto and K. Iizuka, Positive Electrode Active Material for a Nonflammable Rocking Chair Type Lithium Secondary Battery with Ambient Temperature Molten Salt Electrolyte, *Denki Kagaku*, 65(2), p. 161-p. 162 (1997).
- 54) 根岸秀之, 小浦延幸, 井手本 康, 泳動電着法を応用した Ti-2223 系酸化物超伝導膜の作製と特性, 日本セラミックス協会学術論文誌, 105(3), p. 241-p. 245 (1997).
- 55) Y. Idemoto, J. W. Richardson, Jr., N. Koura, S. Kohara and C.-K. Loong, Crystal structure of $\text{LiK}_{0.5}\text{CO}_3$ by neutron powder diffraction analysis, *J. Solid State Chem.*, 128(1), p. 156-p. 159 (1997).
- 56) 根岸秀之, 小浦延幸, 井手本 康, 泳動電着法による Ti-2223 系超伝導膜の作製と電着機構, 日本セラミックス協会学術論文誌, 105(4), p. 351-p. 355 (1997).
- 57) T. Sakaue, N. Koura and Y. Idemoto, Synthesis of Positive Electrode Active Material for Lead-Acid Battery using a Carbon Powder Substrate, *Denki Kagaku*, 65(7), p. 600-p. 601 (1997).
- 58) 井手本 康, 前川慎志, 小浦延幸, $\text{Bi}_2\text{Sr}_2(\text{Ca}_x\text{Y}_{1-x})\text{Cu}_2\text{O}_y$ の Ca の置換量, 酸素量と標準生成エンタルピー, 日本セラミックス協会学術論文誌, 105(9), p. 795-p. 800 (1997).
- 59) Y. Idemoto, J. W. Richardson, Jr., N. Koura, S. Kohara and C.-K. Loong, Crystal structure of $(\text{Li}_x\text{K}_{1-x})_2\text{CO}_3$ ($x=0, 0.43, 0.5, 0.62, 1$) by neutron powder diffraction analysis, *J. Phys. Chem. Solids*, 59(3), p. 363-p. 376 (1998).
- 60) 山口文雄, 小浦延幸, 根岸秀之, 井手本 康, 分散 TiO_2 粒子の粒径とその共析, 表面技術, 49(5), p. 525-p. 529 (1998).

- 61) S. Kohara, Y. S. Badyal, N. Koura, Y. Idemoto, S. Takahashi, L. A. Curtiss, and M.-L. Saboungi, The Structure of Molten Alkali Carbonates studied by Neutron diffraction and Ab initio Calculations, *J. Phys., Condens. Matter*, 10, p. 3301-p. 3308(1998).
- 62) 小浦延幸, 遠藤 巧, 井手本 康, 有機溶媒を添加した常温型溶融塩浴からの非晶質 Co-Zn 合金の電析, *表面技術*, 49(8), p. 913-p. 914(1998).
- 63) 小浦延幸, 松本哲, 井手本 康, EMIC 系常温型溶融塩浴からの非晶質 Co-Zn 合金の電析, *表面技術*, 49(11), p. 1215-p. 1219(1998).
- 64) 小浦延幸, 武田賢一, 川島邦彦, 井手本 康, 交流インピーダンス法を用いた水素吸蔵反応の解析, *電気化学および工業物理化学*, 66(11), p. 1135-p. 1140(1998).
- 65) S. Kohara, N. Koura, Y. Idemoto, S. Takahashi, L. A. Curtiss, and M. -L. Saboungi, The Structure of Li₂KCO₃ Studied by Ab initio Calculations and Raman Spectroscopy, *J. Phys. Chem. Solids*, 59(9), p. 1477-p. 1485(1998).
- 66) Y. Takayama, H. Negishi, S. Nakamura, N. Koura, Y. Idemoto and F. Yamaguchi, Zeta Potential of Various Oxide Particles and the Charging Mechanism, *J. Ceram. Soc. Japan*, 107(2), p. 119-p. 122(1999).
- 67) 井手本 康, 小浦延幸, 宇田川和男, Li 二次電池用正極材料 LiMn_{2-x}Mg_xO₄ の物性と電極特性, *電気化学および工業物理化学*, 67(3), p. 235- p. 237(1999).
- 68) 高山佳典, 小浦延幸, 井手本 康, 柳下宏, 中根堯, 川村将史, 田邊尚敬, 泳動電着法によるゼオライト膜の作製, 日本セラミックス協会学術論文誌, 107(5) p. 437-p. 441(1999).
- 69) N. Koura, K. Iizuka, Y. Idemoto and K. Ui, Li and Li-Al Negative Electrode Characteristics for the Lithium Secondary Battery with a Nonflammable SOCl₂, Li added, LiCl saturated AlCl₃-EMIC Molten Salt Electrolyte, *Electrochemistry*, 67(6), p. 706-p. 712(1999).
- 70) N. Koura, T. Umebayashi, Y. Idemoto and G. Ling, Electrodeposition of Nb-Sn Alloy from SnCl₂-NbCl₅-EMIC Ambient Temperature Molten Salts, *Electrochemistry*, 67(6), p. 684-p. 689 (1999).
- 71) Y. Idemoto, F. Izumi, Q. Huang, A. Santoro, M. Matsuzawa and N. Koura, Effects of Sr Substitution on the Tc and Crystal Structure of Tl₂(Ba_{1-x}Sr_x)₂Ca₂Cu₃O_y, High Technology subseries of NATO Science Series, published by Kluwer Academic Publishers(Netherlands), High-Temperature Superconductors and Novel Inorganic Materials, G. van Tendeloo , et al. (eds.) p. 129-p. 132 (1999).
- 72) Y. Idemoto, K. Udagawa, N. Koura, J. W. Richardson, Jr., K. Takeuchi, and C. -K. Loong, Structural Phase Transition and Electrode Characteristics of LiMn_{2-x}Mg_xO₄ Positive Electrode Material for the Lithium Secondary Battery, in Intercalation Compounds for Battery Materials, G . A. Nazri, M. Thackeray and T. Ohzuku Editors, PV99-24, The Electrochemical Society Proceedings Serires, Pennington, NJ, p. 174-p. 183(1999).
- 73) Y. Idemoto, Y. Hayakawa, N. Koura, J.W.Richardson,Jr., and C. -K. Loong, Oxygen content dependence of crystal structure and Tc of (Nd_{0.675}Ce_{0.325})₂(Ba_{0.664}Nd_{0.336})₂Cu₃O_y, *Physica. C*, 329(1), p. 29- p. 36(2000).
- 74) 小浦延幸, 武田賢一, 井手本 康, 交流インピーダンス法による水素吸蔵合金のアルカリ処理効果の解析, *電気化学および工業物理化学*, 68(2), p. 98-p. 105(2000).
- 75) Y. Idemoto, S. Ogawa, N. Koura and K. Udagawa, Thermodynamic Stability and Cathode Performance of LiMn_{2-x}Mg_xO₄ as Cathode Active Material for the Lithium Secondary Battery, *Electrochemistry*, 68(6), p. 469- p. 473(2000).
- 76) 井手本 康, 小川秀平, 上村泰英, 小浦延幸, Li 二次電池用正極材料 Li_{1+x}Mn_{2-x}O₄ の熱力学的安定性と電池特性, 日本セラミックス協会学術論文誌, 108(9), p. 848-p. 853(2000).
- 77) 小浦延幸, 江尻芳則, 間宮基之, 井手本 康, 松本太, 銅電析に及ぼすゼラチンおよび塩化物イオンの影響Ⅱ, *表面技術*, 51(9), p. 938-p. 944(2000).

- 78) 小浦延幸, 鈴木靖庸, 井手本 康, 松本太, 常温型溶融塩からのアモルファス Zn-Ni 合金の電析, 表面技術, 52(1), p. 116-p. 119 (2001).
- 79) 小浦延幸, 対木洋文, 寺倉典宏, 井手本 康, 松本太, 宇井幸一, 山田和夫, 見立武仁, 泳動電着法を用いたバインダーフリー炭素材料膜の作製, 表面技術, 52(1), p. 143-p. 144 (2001).
- 80) H. Negishi, N. Koura and Y. Idemoto, Charging Mechanism of Ti-2223 Superconducting Oxide Particles in Electrophoretic Deposition Bath, J. Ceram. Soc. Japan, 109(4), p. 294-p. 298 (2001).
- 81) H. Yanagishita, D. Kitamoto, K. Haraya, T. Nakane, T. Okada, H. Matsuda, Y. Idemoto and N. Koura, Separation performance of polyimide composite membrane prepared by dip coating process, J. Membrane Science, 188(2), p. 165-p. 172 (2001).
- 82) 荒井純子, 松田博行, 柳下宏, 北本大, 中根堯, 原谷研司, 井手本 康, 小浦延幸, 不織布上へのポリイミド非対称膜の作製, 膜(Membrane), 26(3), p. 148-p. 154 (2001).
- 83) 井手本 康, 小笠智弘, 小浦延幸, Li 二次電池用正極材料 LiMn 系スピネルにおける電池特性の熱力学的検討, 日本セラミックス協会学術論文誌, 109(9), p. 771-p. 776 (2001).
- 84) 小浦延幸, 芝野憲司, 松本太, 松澤秀則, 加藤智紀, 井手本 康, 凌国平, NbCl₅-SnCl₂-EMIC 系常温型溶融塩浴からのNb₃Sn 超伝導合金の電析, 表面技術, 52(9), p. 645-p. 646 (2001).
- 85) 井手本 康, 松浦宣範, 小浦延幸, (Bi_{2.1}Pb_X)Sr_{2.0}Ca_{0.9}Y_{0.1}Cu_{2.0}y におけるTc, Jc の Pb 換算量, 酸素量依存, 日本セラミックス協会学術論文誌, 109(11), p. 939-p. 943 (2001).
- 86) N. Koura, K. Etoh, Y. Idemoto, F. Matsumoto, Electrochemical Behavior of Graphite-Lithium Intercalation Electrode in AlCl₃-EMIC-LiCl-SOCl₂ Room-Temperature Molten Salt, Chemistry Letters, p. 1320-p. 1321 (2001).
- 87) Baba R., Idemoto Y., Akiba E., Activities of the education and promotion committee (1), *Electrochemistry*, 69(3), p. 207 (2001).
- 88) D. Kitamoto, T. Ikegami, T. Suzuki, A. Sasaki, Y. Takeyama, Y. Idemoto, N. Koura, H. Yanagishita, Microbial conversion of n-alkanes into glycolipid biosurfactants, mannosylerythritol lipids, by Pseudozyma (Candida antarctica), Biotech. Lett., 23(20), p. 1709-p. 1714 (2001).
- 89) 小浦延幸, 田代洋介, 二村昌樹, 松本 太, 井手本 康, AlCl₃-EMIC 系常温型溶融塩からのアルミニウムの配向電析, 表面技術, 52(11), p. 791-p. 792 (2001).
- 90) H. Matsuda, H. Yanagishita, D. Kitamoto, K. Haraya, T. Nakane, T. Takada, Y. Idemoto, N. Koura, T. Sano, Preparation of Silicalite Pervaporation Membrane with Ethanol Permselectivity by a 2-Step Hydrothermal Synthesis, Separation Science and Technology, 36(15), p. 3305-p. 3310 (2001).
- 91) 小浦延幸, 松本太, 猿渡秀郷, 北原しのぶ, 井手本 康, 山崎崇, 古川雅一, 内秀則, 高配向アルミニウムの直流エッチングにより形成されるトンネル入り口形態の考察, 表面技術, 53(2), p. 154-p. 155 (2002).
- 92) 井手本 康, 西川 潤, 小浦延幸, 神山 崇, 泉 富士夫, Ti_{2-z}Ba₂Ca_{1.95}Y_{0.05}Cu₃O_y 超伝導酸化物の Tc, 結晶構造の Ti 量依存性, 日本セラミックス協会学術論文誌, 110(3) p. 180-p. 185 (2002).
- 93) 戸田一路, 小浦延幸, 井手本 康, 内田邦夫, 栗木安則, 島田和夫, 早川博, 伊ヶ崎文和, 乾式粉碎硫化モリブデンの粒子特性と触媒活性とに及ぼす粉碎媒体見かけ充てん率の影響, 粉体工学会誌, 39(4), p. 240-p. 246 (2002).
- 94) H. Yanagishita, D. Kitamoto, T. Ikegami, H. Negishi, A. Endo, K. Haraya, T. Nakane, N. Hanai, J. Arai, H. Matsuda, Y. Idemoto, N. Koura, Preparation of photo-induced graft filling polymerized membranes for pervaporation using polyimide with benzophenone structure, J. Membrane Science, 203, p. 191-p. 199 (2002).
- 95) K. Nouzaki, M. Nagata, J. Arai, Y. Idemoto, N. Koura, H. Yanagishita, H. Negishi, D. Kitamoto, T. Ikegami, K. Haraya, Preparation of polyacrylonitrile ultrafiltration membranes for wastewater treatment, Desalination, 144, p. 53-p. 59 (2002).

- 96) 井手本 康, 奈良井洋介, 小浦延幸, 5V 級 Li 二次電池用正極活物質 $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ の酸素量と電極特性, 電気化学および工業物理化学, 70(8), p. 587-p. 589 (2002).
- 97) 井手本 康, 佐藤雄平, 小浦延幸, J. W. Richardson, Jr., C.-K. Loong, 竹内謙, $\text{Sr}_{1-x}\text{Bi}_{2+x}\text{Ta}_{2\text{O}}_{9-\delta}$ ($x=0, 0.2$) 強誘電体の結晶構造と強誘電特性におよぼす熱処理の影響, 日本セラミックス協会学術論文誌, 110(9), p. 859-p. 866 (2002).
- 98) 小浦延幸, 松本太, 猿渡秀郷, 北原しのぶ, 山崎崇, 井手本 康, 古川雅一, 内秀則, 高配向アルミニウムへの直流エッチングによって形成されるトンネルの形態観察およびその評価～溶液組成依存性～, 表面技術, 53(9), p. 612-p. 617 (2002).
- 99) 小浦延幸, 府野真也, 對木洋文, 井手本 康, 宇井幸一, 松本太, 泳動電着を用いたリチウム二次電池用炭素負極の作製, 表面技術, 53(10), p. 683-p. 687 (2002).
- 100) 伊藤由賀, 井手本 康, 角田悠佳, 小浦延幸, Li 二次電池用正極活物質 $\text{LiMn}_{2-x}\text{Zn}_x\text{O}_4$ ($x=0, 0.1$) の電子構造と電極特性の関係, 電気化学および工業物理化学, 70(11), p. 847-p. 849 (2002).
- 101) T. Kijima, Y. Kawashima, Y. Idemoto and H. Ishiwara, Effect of High-Pressure Oxygen Annealing on Bi_2SiO_5 -Added Ferroelectric Thin Films, Jpn. J. Appl. Phys., 41(10B), L1164-L1166 (2002)
- 102) 小浦延幸, 松澤秀則, 野木淳志, 井手本 康, 松本太, $\text{Li}_2\text{CO}_3\text{-Na}_2\text{CO}_3$ 系高温溶融塩中での Fe および Fe-Ni 基板の腐食挙動, 表面技術, 53(11), p. 759-p. 764 (2002).
- 103) N. Koura, T. Minami, K. Etoh, Y. Idemoto, F. Matsumoto, Cycling Behavior of Binder-Free Graphite-Lithium Intercalation Anode in $\text{AlCl}_3\text{-EMIC-LiCl-SOCl}_2$ Room-Temperature Molten Salt, J. Korean Electrochem. Soc., 5(4), p. 178-p. 182 (2002).
- 104) H. Matsuda, H. Yanagishita, H. Negishi, D. Kitamoto, T. Ikegami, K. Haraya, T. Nakane, Y. Idemoto, N. Koura, T. Sano, Improvement of ethanol selectivity of silicalite membrane in pervaporation by silicone rubber coating, J. Membrane Science, 210(2), p. 433-p. 437 (2002).
- 105) N. Koura, H. Matsuzawa, T. Kato, Y. Idemoto, F. Matsumoto, Strcutural Analysis of Species in $\text{NbCl}_5\text{-EMIC}$ Room-Temperature Molten Salt with raman Spectroscopic Measurement and Ab Initio Molecular Orbital Calculation, J. Korean Electrochem. Soc., 5(4), p. 183-p. 188 (2002).
- 106) 小浦延幸, 松本太, 山崎崇, 猿渡秀郷, 井手本 康, 北原しのぶ, 小野昭二, 内秀則, 高配向アルミニウムへの直流エッチングによって形成されるトンネル入り口部の形態, 表面技術 54(3), p. 217 -p. 223 (2003).
- 107) Y. Idemoto, H. Narai, N. Koura, Crystal Structure and Cathode Performance on Oxygen Content of $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ as a Cathode Material for the Lithium Secondary Battery, J. Power Source, 119-121, p. 125-p. 129 (2003).
- 108) Y. Ito, Y. Idemoto, Y. Tsunoda, N. Koura, Relation between Crystal Structures, Electronic Structures, and Electrode Performances of $\text{LiMn}_{2-x}\text{M}_x\text{O}_4$ ($\text{M}=\text{Ni}, \text{Zn}$) as a Cathode Active Material for 4V Class Li Secondary Battery, J. Power Source, 119-121, p. 733-p. 737 (2003).
- 109) 伊藤 由賀, 井手本 康, 角田 悠佳, 小浦 延幸, Li 二次電池用正極活物質 $\text{LiMn}_{2-x}\text{Zn}_x\text{O}_4$ $x=0.05, 0.1$ の結晶及び電子構造と電極特性の関係, 電気化学および工業物理化学, 71(8), p. 703-p. 709 (2003).
- 110) 伊藤由賀, 井手本 康, 小浦延幸, 実験および理論的手法による Li 二次電池用正極材料 LiMn 系酸化物の検討, 表面, 41(8), p. 274-p. 288 (2003).
- 111) 井手本 康, 山脇健太郎, 小浦延幸, 神山 崇, 及川健一, 泉 富士夫, $\text{Tl}_{2-x}\text{Ba}_2\text{Ca}_2\text{Cu}_{3+z}\text{O}_y$ 超伝導酸化物の T_c , 結晶構造の組成, 酸素量依存, 日本セラミックス協会学術論文誌, 111(9), p. 651- p. 657 (2003).
- 112) H. Im, H. Yanagishita, T. Ikegami, Y. Takeyama, Y. Idemoto, N. Koura, D. Kitamoto, Mannosylerythritol lipids, yeast glycolipid biosurfactants, are potential affinity ligand

- materials for human immunoglobulin G, *J. Biomedical Materials Research, Part A*, 65A(3), p. 379-p. 385 (2003).
- 113) Y. Idemoto, T. Miyahara, N. Koura, T. Kijima, H. Ishiwra, Crystal Structure and Ferroelectric Property of $(\text{Bi}, \text{La})_4(\text{Ti}, \text{Si})_{30}12$ as a Bulk Ferroelectric Material, *Solid State Communication*, 128(6-7), p. 255-p. 259 (2003).
- 114) 井手本 康, 津之地 洋平, 宇井 幸一, 小浦 延幸, $\text{Bi}_{1.76}\text{Pb}_{0.44}\text{Sr}_{1.86}\text{Ca}_{2.08-x}\text{Y}_x\text{Cu}_{2.86}$ _{0y} 超伝導酸化物における T_c , μ の Y 置換量, 酸素量依存, 日本セラミックス協会学術論文誌, 111(10), p. 781-p. 785 (2003).
- 115) N. Koura, Y. Suzuki, Y. Idemoto, T. Kato, and F. Matsumoto, Electrodeposition of $\text{ZnCl}_2\text{-NiCl}_2\text{-EMIC}$ and $\text{ZnCl}_2\text{-NiCl}_2\text{-EMIC-EtOH}$ ambient temperature molten salts, *Surface and Coatings Technology*, 169-170, p. 120-p. 123 (2003).
- 116) Y. Ito, Y. Idemoto, K. Ui and N. Koura, Electronic States of $\text{Li}_y\text{Mn}_{2-x}\text{M}_x\text{O}_4$ ($\text{M}=\text{Mn, Mg, Ni, Co}$) as a cathode Active Material for Li Secondary Battery by First-Principles Calculation using DV-X_a Method, *Electrochemistry*, 71(12), p. 1145-p. 1147 (2003).
- 117) Y. Idemoto, H. Sekine, K. Ui and N. Koura, Dependence of Li content on Crystal Structure during the Charge-Discharge Process of $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ as a Cathode Materials for 5V Class Lithium Secondary Battery, *Electrochemistry*, 71(12), p. 1142-p. 1144 (2003).
- 118) 井手本 康, 小浦延幸, Si 置換強誘電体酸化物の結晶構造, 物性と強誘電体特性, *信学技報*, 102(732), p. 37-p. 42 (2003).
- 119) 伊藤 由賀, 井手本 康, 小浦 延幸, $\text{LiMn}_{2-x}\text{M}_x\text{O}_4$ ($\text{M}=\text{Mn, Mg, Al, Co, Ni, Zn}$) のサイクル特性と *MEM/Rietveld* 法および第一原理計算(DV-X_a法)による電子状態, 電気化学および工業物理化学, 72(1), p. 20-p. 26 (2004).
- 120) 井手本 康, 吉越大之, 小浦延幸, 竹内謙, J. W. Richardson, Jr., C.-K. Loong, 热処理による $\text{PbZr}_x\text{Ti}_{1-x}\text{O}_3$ ($x=0.40, 0.45, 0.53$) 強誘電体の結晶構造と強誘電特性の関係, 日本セラミックス協会学術論文誌, 112(1), p. 40-p. 45 (2004).
- 121) F. Matsumoto, M. Harada, N. Koura, Y. Idemoto, and K. Ui, Enhancement of Electrochemical Oxidation of Glucose at Hg Adatom-modified Au Electrode in Alkaline Aqueous Solutions, *Electrochemistry*, 72(2), p. 103-p. 110 (2004).
- 122) F. Yamaguchi, T. Fujita, Y. Kanega, K. Ui, Y. Idemoto and N. Koura, Photocatalytic Activity of Ag-TiO₂(anatase) Composite Film Prepared by Composite Coating, *Electrochemistry*, 72(3), p. 156-p. 158 (2004).
- 123) H. Yanagishita, J. Arai, T. Sandoh, H. Negishi, D. Kitamoto, T. Ikegami, K. Haraya, Y. Idemoto, N. Koura, Preparation of polyimide composite membranes grafted by electron beam irradiation, *J. Membrane Science*, 232(1-2), p. 93-p. 98 (2004).
- 124) 宇井幸一, 八代高司, 二村昌樹, 井手本 康, 小浦延幸, $\text{AlCl}_3\text{-EMIC}$ 常温型溶融塩を用いたアルミニウム配向電析 - キシレン混合による配向性に及ぼす影響 -, 表面技術, 55(6), p. 409-p. 416 (2004).
- 125) Y. Idemoto, M. Matsuzawa, N. Koura, K. Takeuchi, J. W. Richardson, Jr., C. -K. Loong, Effects of Excess Oxygen Content on the Hole-carrying CuO₂-Layers in $\text{Tl}_2(\text{Ba}_{1-x}\text{Sr}_x)_2\text{Ca}_2\text{Cu}_3\text{O}_y$ Superconducting Oxides, *Solid State Communication*, 131, p. 513-p. 517 (2004).
- 126) 井手本 康, 角田悠佳, 小浦延幸, Li 二次電池用正極活物質 $\text{LiMn}_{2-x}\text{Ni}_x\text{O}_4$ の熱力学的安定性と電極特性, 電気化学および工業物理化学 72(8), p. 557-p. 563 (2004).
- 127) 井手本 康, 関根裕, 宇井幸一, 小浦延幸, 5V 級 Li 二次電池正極活物質 $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ の合成条件による物性, 結晶構造と電極特性の関係, 電気化学および工業物理化学, 72(8), p. 564-p. 568 (2004).

- 128) 井手本 康, 堀子和孝, 小浦延幸, 宇井幸一, Li 二次電池正極材料 $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$ ($\text{M}=\text{Mg}, \text{Al}, \text{Cr}, \text{Mn}$) の熱力学安定性および結晶構造の Li 量依存, 電気化学および工業物理化学, 72(10), p. 680-p. 687 (2004).
- 129) 井手本 康, 堀子和孝, 伊藤由賀, 小浦延幸, 宇井幸一, 化学的に脱 Li した Li 二次電池正極活物質 $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$ ($\text{M}=\text{Mg}, \text{Al}, \text{Cr}, \text{Mn}, \text{Co}, \text{Zn}, \text{Ni}$) の結晶構造, 電子構造の Li 量依存, 電気化学および工業物理化学, 72(11), p. 755-p. 762 (2004).
- 130) 井手本 康, 横山直人, 小浦延幸, 宇井幸一, $\text{Bi}_{4-x+y}\text{La}_x\text{Ti}_3\text{O}_{12-\delta}$ ($x=0.5, y=0; x=0.75, y=0.15$) 強誘電体セラミックスの熱処理による強誘電特性への影響, 日本セラミックス協会学術論文誌, 112(12), p. 669-p. 673 (2004).
- 131) M. Okamoto, H. Negishi, T. Imura, D. Kitamoto, T. Ikegami, Y. Idemoto, N. Koura, T. Sano, K. Haraya, H. Yanagishita, Preparation of Silicalite Membranes on Porous Tubular Supports by Hydrothermal Synthesis with Electrophoretic Deposition as a Seeding Technique, Eighth International Conference on Inorganic Membranes (ICIM8), ICIM8 Organization Committee, p. 540-p. 543 (2004).
- 132) Y. Idemoto, H. Sekine, K. Ui and N. Koura, Crystal Structural Change during Charge-Discharge Process of $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ as Cathode Material for 5V Class Lithium Secondary Battery, Solid State Ionics, 176(3/4), p. 299-p. 306 (2005).
- 133) 井手本 康, 津之地洋平, 宮部徹, 宇井幸一, 小浦延幸, $\text{Bi}_{2.20-x}\text{Pb}_x\text{Sr}_{1.86}\text{Ca}_{2.03}\text{Y}_{0.05}\text{Cu}_{2.86}\text{O}_y$ 超伝導酸化物における T_c , J_c の Pb 置換量および酸素量依存, 日本セラミックス協会学術論文誌, 113(2), p. 166-p. 171 (2005).
- 134) K. Ui, K. Ishikawa, K. Furuya, Y. Idemoto, and N. Koura, Positive Electrode Performance of Nonflammable Lithium Secondary Battery with Ambient Temperature Molten Salt Electrolyte, Electro-chemistry, 73(2), p. 120-p. 122 (2005).
- 135) 小浦延幸, 粕谷健太, 宇井幸一, 滝口友輝, 井手本 康, 鉛蓄電池用負極集電体に用いる Pb 合金の充電状態における腐食挙動, 電気化学および工業物理化学, 73(2), p. 135-p. 140 (2005).
- 136) 宇井幸一, 南拓人, 石川恒平, 井手本 康, 小浦延幸, アルミニウム電気めっき極のリチウム二次電池用負極への応用, 電気化学および工業物理化学, 73(4), p. 279-p. 283 (2005).
- 137) T. Ikegami, H. Negishi, D. Kitamoto, K. Sakaki, T. Imura, M. Okamoto, Y. Idemoto, N. Koura, T. Sano, K. Haraya, H. Yanagishita, Stabilization of bioethanol recovery with silicone rubber-coated ethanol-permselective silicalite membranes by controlling the pH of acidic feed solution, J. Chem. Tech. and Biotech., 80(4), p. 381-p. 387 (2005).
- 138) 井手本 康, 横山直人, 小浦延幸, 神山崇, La 置換量変化による $\text{Bi}_{4-x}\text{La}_x\text{Ti}_3\text{O}_{12-\delta}$ ($x=0.25, 0.5, 0.75, 1.0$) 強誘電体の結晶構造と強誘電特性, Material technology, 23(2), p. 123-p. 135 (2005).
- 139) 井手本 康, 横山直人, 小浦延幸, J. W. Richardson, Jr., C. -K. Loong, $\text{Bi}_{4-x+y}\text{La}_x\text{Ti}_3\text{O}_{12-\delta}$ ($x=0.50, y=0; x=0.75, y=0; x=0.75, y=0.15$) 強誘電体の熱処理による結晶構造と強誘電特性の関係, Material Technology, 23(3), p. 182-p. 190 (2005).
- 140) K. Ui, T. Minami, K. Ishikawa, Y. Idemoto and N. Koura, Development of Nonflammable Lithium Secondary Battery with Ambient-Temperature Molten Salt Electrolyte – Performance of Binder-free Carbon Negative Electrode-, J. Power Sources, 146(1-2), p. 698-p. 702 (2005).
- 141) 井手本 康, 近野雄志, 宇井幸一, 小浦延幸, Li 二次電池正極活物質 $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_2$ ($\text{M}=\text{Mn}, \text{Al}, \text{Cu}$) の熱力学的安定性および結晶構造に及ぼす Li 組成比の影響, Electrochemistry, 73(9), p. 823-p. 829 (2005).
- 142) 井手本 康, 宮原孝広, 小浦延幸, J. W. Richardson, Jr., C. -K. Loong, $\text{Bi}_{3.325}\text{La}_{0.675}(\text{Ti}, \text{Si})_3\text{O}_{12}$ 強誘電体の結晶構造, 物性と強誘電特性の組成, 熱処理依存, Material Technology, 23(5), p. 322-p. 335 (2005).
- 143) 井手本 康, 宮部徹, 小浦延幸, $\text{La}_{2-x}\text{RE}_x\text{CuO}_y$ ($\text{RE}=\text{Y}, \text{Tb}$) の物性, 構造, 導電率の組成および熱処理依存性, Material Technology, 23(6) p. 394-p. 402 (2005).
- 144) H. Negishi, N. Oshima, K. Haraya, K. Sakai, T. Ikegami, Y. Idemoto, N. Koura, H. Yanagishita, Preparation of Thin and Dense Lanthanum Cobaltite Coating on Porous Tubular

- Alumina Supports by Electrophoretic Deposition, J. Ceramic Soc. Japan, 114(1), p. 36-p. 41(2006).
- 145) Y. Idemoto, T. Mochizuki, K. Ui, and N. Koura, Properties, Crystal Structure and Performance of α -LiMnO₂ as Cathode Material for Li Secondary Batteries, J. Electrochem. Soc., 153(2), p. A418-p. A424(2006).
- 146) H. Negishi, T. Imura, D. Kitamoto, T. Ikegami, H. Yanagishita, M. Okamoto, Y. Idemoto, N. Koura, and T. Sano, Preparation of Tubular Silicate Membranes by Hydrothermal Synthesis with Electrophoretic Deposition as a Seeding Technique, J. Am. Ceram. Soc. , 89(1), p. 124-p. 130(2006).
- 147) 井手本 康, 宮部徹, 小浦延幸, $T\text{-La}_{2-x}\text{Y}_x\text{CuO}_y$ 薄膜の相, 格子定数及び導電率の組成及びアニール条件依存性, 日本セラミックス協会学術論文誌, 114(4), p. 359-p. 361(2006).
- 148) 宇井幸一, 中矢清隆, 高橋康明, 田邊尚敬, 井手本 康, 小浦延幸, CuCl-1-ブチルピリジニウムクロリド系常温型溶融塩浴を用いた Cu(I)イオンからの銅の電析-有機溶媒混合浴, 表面技術, 57(4), p. 58-p. 59(2006).
- 149) 宇井幸一, 上浦尚子, 井手本 康, 小浦延幸, 山崎貴史, 有機溶媒添加 ZnCl₂-NiCl₂-EMIC 常温型溶融塩浴を用いたクラックフリー非晶質 Zn-Ni 合金の電析, 表面技術, 57(5), p. 383-p. 384(2006).
- 150) 宇井幸一, 府野真也, 長瀬浩, 井手本 康, 小浦延幸, 泳動電着法を用いた Li イオン二次電池用バインダーフリー正極の作製, Electrochemistry, 74(6), p. 474-p. 478(2006).
- 151) Y. Idemoto, T. Takahashi, N. Koura, and C. -K. Loong, Crystal Structure and Ferroelectric Properties of Si Added SrBi₂Ta₂O₉, Jpn. J. Appl. Phys., 45(6A), p. 5091-p. 5097(2006).
- 152) 井手本 康, 高橋智之, 小浦延幸, Sr-Bi-Ta-Si-O 系強誘電体の結晶構造, 強誘電特性の組成, 热処理依存, 日本セラミックス協会学術論文誌, 114(7), p. 630-p. 637(2006).
- 153) K. Ui, T. Yamasaki, N. Koura, Y. Idemoto, T. Makino, M. Furukawa, H. Uchi, Growth Model of Reversed Taper during Early Stage of D.C. Etching on Aluminum Oriented to (100), Electrochemistry, 74(9), p. 737-p. 743(2006).
- 154) 井手本 康, 酒谷卓, 小浦延幸, Li 二次電池正極活物質 $\text{Li}_x\text{Co}_{1/3}\text{Ni}_{1/3}\text{Mn}_{1/3}\text{O}_{2+\delta}$ の物性, 結晶構造と電極特性の Li 組成依存, Electrochemistry, 74(9), p. 752-p. 757(2006).
- 155) H. Negishi, N. Oshima, K. Sakai, K. Haraya, Y. Idemoto, N. Koura, and H. Yanagishita, Preparation of tubular mixed conducting oxide membrane by electrophoretic deposition technique, Desalination, 200(1-3), p. 71-p. 73(2006).
- 156) 井手本 康, 清水大輔, 小浦延幸, Li 二次電池正極材料斜方晶 $\text{LMn}_{1-x}\text{M}_x\text{O}_2$ ($\text{M}=\text{Mn, Co, Ni}$) の結晶・電子構造と電極特性, Electrochemistry, 74(10), p. 815-p. 821(2006).
- 157) 井手本 康, 清水大輔, 小浦延幸, Li 二次電池正極材料斜方晶 $\text{LiMn}_{1-x}\text{M}_x\text{O}_2$ ($\text{M}=\text{Mn, Co, Ni, Zn}$) の MEM/Rietveld 解析および第一原理計算による電子構造の検討, 日本セラミックス協会学術論文誌, 114(10), p. 849-p. 852(2006).
- 158) 井手本 康, 草島研太, 小浦延幸, $\text{Ti}_2\text{Ba}_{2-x}\text{Sr}_x\text{Ca}_{1.95}\text{Y}_{0.05}\text{Cu}_3\text{O}_y$ の物性, Tc, 結晶構造の Sr 置換量, 热処理依存, Material Technology, 24(5), p. 289-p. 296(2006).
- 159) 井手本 康, 吉田理志, 宇井幸一, 小浦延幸, 泳動電着法による Pb-Zr-Ti-Nb-Si-O 系強誘電体厚膜の作製, Electrochemistry, 74(11), p. 883-p. 889(2006).
- 160) 井手本 康, 酒谷卓, 小浦延幸, Li 二次電池正極活物質 $\text{Li}_{1.052}\text{Co}_{1/3}\text{Ni}_{1/3}\text{Mn}_{1/3}\text{O}_{2+\delta}$ の物性, 結晶構造と電極特性の熱処理条件依存, Electrochemistry, 74(12), p. 959-p. 963(2006).
- 161) K. Ui, K. Ishikawa, Y. Idemoto, and N. Koura, Development of nonflammable lithium secondary battery with ambient temperature molten salt electrolyte – performance of positive electrode, PV2004-24(Molten Salts XIV), The Electrochemical Society Proceedings Series, Pennington, NJ, p. 19-p. 25(2006).
- 162) 井手本 康, 草島研太, 小浦延幸, $T'\text{-La}_{2-x}\text{RE}_x\text{CuO}_{4-\square}$ RE=Y, Sm, Lu) の物性, 結晶構造, 導電率の組成, 合成プロセス依存, Material Technology, 25(1), p. 7-p. 16(2007).

- 163) 井手本 康, 松井 貴昭, リチウム二次電池正極活物質 $\text{Li}_x(\text{Mn}, \text{Co}, \text{Ni}, \text{M})\text{O}_2$ ($\text{M}=\text{Al}, \text{Ti}, \text{Fe}$) の物性, 結晶・電子構造, 熱力学的安定性と電池特性, *Electrochemistry*, 75(10), p. 791-p. 799(2007).
- 164) Y. Idemoto, S. Taniyama, and N. Koura, Crystal Structure and Ferroelectric Properties of $\text{Bi}_4\text{Si}_3\text{O}_{12}$ added Sr-Ce-Bi-Ta-O System, *Ferroelectronics*, 355, p. 90-p. 95(2007).
- 165) 井手本 康, 谷山敏, Ce 置換, Bi-Si-O 添加による Sr-Ce-Bi-Ta-Si-O 系強誘電体の結晶構造と強誘電特性の変化, 日本セラミックス協会学術論文誌, 115(12), p. 960-p. 966(2007).
- 166) 井手本 康, 菅野圭一, James W. Richardson, Jr., Pb-Si-Zr-Ti-W-O 系強誘電体酸化物の結晶構造と強誘電特性, *Material Technology*, 25(6), p. 320-p. 328(2007).
- 167) 井手本 康, 小浦延幸, リチウム二次電池正極材料の物性, 結晶・電子構造, 熱力学的安定性と電池特性, *電池技術*, 19, p. 16-p. 23(2007).
- 168) K. Chiba, N. Kijima, Y. Takahashi, Y. Idemoto, J. Akimoto, Synthesis, structure, and electrochemical Li-ion intercalation properties of $\text{Li}_2\text{Ti}_3\text{O}_7$ with $\text{Na}_2\text{Ti}_3\text{O}_7$ -type layered structure, *Solid State Ionics*, 178, p. 1725-p. 1730(2008).
- 169) 井手本 康, 古宮章子, Pb-Si-Zr-Ti-Nb-O 系強誘電体の物性, 結晶構造と強誘電特性, *Material Technology*, 26(2)p. 73-p. 84(2008).
- 170) Y. Idemoto, T. Matsui, Thermodynamic Stability, Crystal Structure, and Cathodic Performance of $\text{Li}_x(\text{Mn}_{1/3}\text{Co}_{1/3}\text{Ni}_{1/3})\text{O}_2$ Depend on the Synthetic Process and Li content, *Solid State Ionics*, 179, p. 625-p. 635(2008).
- 171) 井手本 康, 北村尚斗, 岩月秀伸, Li 二次電池正極活物質 LiMn_2O_4 の物性, 電極特性における超音波処理の影響, *Electrochemistry*, 76(11), p. 808-p. 812(2008).
- 172) Y. Idemoto, Crystal and Electronic Structures, Thermodynamic Stability, and Cathode Performance of $\text{Li}_x(\text{Mn}, \text{Co}, \text{Ni}, \text{M})$ ($\text{M}=\text{Al}, \text{Ti}, \text{Fe}$) as a Cathode Active Material for Li Ion Battery, *Proceedings of the TUS-NPU Bilateral Seminar*, p. 229-p. 231(2008).
- 173) Kunimitsu Kataoka, Yasuhiko Takahashi, Norihiro Kijima, Hideaki Nagai, Junji Akimoto, Yasushi Idemoto, Ken-ichi Ohshima, Crystal growth and structure refinement of monoclinic $\text{Li}_2\text{Ti}_3\text{O}_7$, *Materials Research Bulletin*, 44, p. 168-p. 172, (2009).
- 174) Takanori Itoh, Yuuki Nishida, Aya Tomita, Yoshinori Fujie, Naoto Kitamura, Yasushi Idemoto, Keiichi Osaka, Ichiro Hirosawa, Naoki Igawa, Determination of the crystal and charge density of $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Co}_{0.8}\text{Fe}_{0.2})\text{O}_{2.33}$ by Rietveld refinement and maximum entropy method analysis, *Solid State Communications*, 149, p. 41-p. 44(2009).
- 175) Yasushi Idemoto, Tomomasa Sugiyama, Naoto Kitamura, Takanori Itoh, Crystal Structure, Oxygen Nonstoichiometry and Conduction Path of LaGaO_3 -Based Oxide-Ion Conductors, *Electrochemistry*, 77, p. 152-p. 154(2009).
- 176) Naoto Kitamura, Toshiyuki Usuki, Yasushi Idemoto, Crystal and Electronic Structures and High Temperature Protonic Conduction of $\text{LaBaGa}_{0.95}\text{Mg}_{0.05}\text{O}_{4-\delta}$, *Electrochemistry*, 77, p. 158-p. 160(2009).
- 177) Takanori Itoh, Saori Shirasaki, Yoshinori Fujie, Naoto Kitamura, Yasushi Idemoto, Keiichi Osaka, Ichiro Hirosawa, Naoki Igawa, Study of Mechanism of Mixed Conduction Due to Electrons and Oxygen Ions in $(\text{La}_{0.75}\text{Sr}_{0.25})\text{MnO}_{3.00}$ and $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Co}_{0.8}\text{Fe}_{0.2})\text{O}_{2.33}$ through Rietveld Refinement and MEM Analysis, *Electrochemistry*, 77, p. 161-p. 168(2009).
- 178) Naoto Kitamura, Hidenobu Iwatsuki, Yasushi Idemoto, Improvement of cathode performance of LiMn_2O_4 as a cathode active material for Li ion battery by step-by-step supersonic-wave treatments, *J. Power Sources*, 189, p. 114-p. 120(2009).
- 179) Yasushi Idemoto, Yu Takanashi, Naoto Kitamura, Dependence of property, crystal structure and electrode characteristics on Li content for $\text{Li}_x\text{Ni}_{0.8}\text{Co}_{0.2}\text{O}_2$ as a cathode active material for Li secondary battery, *J. Power Sources*, 189, p. 269-p. 278(2009).
- 180) Yasushi Idemoto, Satoshi Taniyama, Satoshi Iikubo, Shin-ichi Shamoto, and James W. Richardson, Jr., Relationship between average and local crystal structure and the

- ferroelectric properties of a Sr–Bi–Ta–Si–O ferroelectric material, *J. Phys. Chem. Solids*, **70**, p. 1156–p. 1165 (2009).
- 181) Yasushi Idemoto, Hideyuki Takashima and Naoto Kitamura, Dependence of property, crystal structure and electric conductivity on substitution content and synthetic process of $T' - La_{2-x} RE_x Cu O_4 - \square$ ($RE = Sm$ and Tb), *Physica C*, **469**, p. 2003–p. 2007 (2009).
- 182) Naoto Kitamura, Tomomasa Sugiyama, Yasushi Idemoto, Takanori Itoh, Investigation on crystal structure and oxide ionic conduction path of $LaGaO_3$ -based oxide by *in situ* TOF neutron diffraction, *ECS Transactions*, **25**, p. 1737–p. 1743 (2009).
- 183) 井手本 康, 高梨優, 北村尚斗, Li二次電池正極活物質 $Li_{1.041}Ni_{0.8}Co_{0.2}O_y$ の物性, 結晶構造と電極特性の熱処理条件依存, *Electrochemistry*, **77**(11), p. 945–p. 950 (2009).
- 184) 北村尚斗、星野雅彦、阿部直彦、一柳彰、井手本 康, スラリーを用いた泳動電着法による $Ba_{1-x}Sr_xTiO_3$ 誘電膜の作製, *Electrochemistry*, **77**(11), p. 951–p. 955 (2009).
- 185) 井手本 康, 星野雅彦, 北村尚斗, 阿部直彦, 一柳彰, 微粉末を用いた泳動電着法による $Ba_{1-x}Sr_xTiO_3$ 誘電膜の作製と誘電特性の評価, 表面技術, **60**, p. 800–p. 804 (2009).
- 186) Takanori Itoh, Saori Shirasaki, Yoshinori Fujie, Naoto Kitamura, Yasushi Idemoto, Keiichi Osaka, Hironori Ofuchi, Sayaka Hirayama, Tetsuo Honma, Ichiro Hirosawa, Study of charge density and crystal structure of $(La_{0.75}Sr_{0.25}MnO_{3.00})$ and $(Ba_{0.5}Sr_{0.5})(Co_{0.8}Fe_{0.2})O_{2.33-\delta}$ at 500–900 K by *in situ* synchrotron X-ray diffraction, *J. of Alloys and Compounds*, **491**, p. 527–p. 535 (2010).
- 187) Daisuke Yoshikawa, Yoshihiro Kadoma, Jung-Min Kim, Koichi Ui, Naoaki Kumagai, Naoto Kitamura, Yasushi Idemoto, Spray-drying synthesized lithium-excess $Li_{4+x}Ti_{5-x}O_{12-\delta}$ and its electrochemical property as negative electrode material for Li-ion batteries, *Electrochimica Acta*, **55**, p. 1872–p. 1879 (2010).
- 188) Yasushi Idemoto, Kenichiro Ueki, Naoto Kitamura, Dependence of average and local structure and cathode performance on synthetic condition of $Li_x(Mn_{1/3}Co_{1/3}Ni_{1/3})O_2$ as a cathode active material for Li ion battery, *Electrochemistry*, **78**(5), p. 475–p. 481 (2010).
- 189) Oki Sekizawa, Naoto Kitamura, Yasushi Idemoto, Effect of Li content on electronic structure by first-principle calculation for $Li_{1+x}Ni_{0.5}Mn_{0.5}O_2$ cathode active material of lithium-ion battery, *Electrochemistry*, **78**(5), p. 367–p. 369 (2010).
- 190) Takanori Itoh, Takene Hirai, Junichi Yamashita, Syouji Watanabe, Etsuya Kawata, Naoto Kitamura, Yasushi Idemoto, Naoki Igawa, Study of oxygen ion diffusion in $(Ba_{0.5}Sr_{0.5})(Co_{0.8}Fe_{0.2})O_{2.33-\delta}$ through *in-situ* neutron diffractions at 300 and 720 K, *Physica B*, **405**, p. 2091–p. 2096 (2010).
- 191) 井手本 康、小谷浩隆、北村尚斗, $Bi_4(Ti, Si)3012$ 強誘電体の結晶・電子構造, 粉体および粉末冶金, **57**(4), p. 191–p. 197 (2010).
- 192) 阿部直彦, 星野雅彦, 北村尚斗, 一柳彰, 井手本 康, バインダー添加スラリーを用いた泳動電着法による $Ba_{1-x}Sr_xTiO_3$ 誘電膜の作製と評価, 電気化学および工業物理化学, **78**(10), p. 817–p. 824 (2010).
- 193) Junji Awaka, Akira Takashima, Kunimitsu Kataoka, Norihito Kijima, Yasushi Idemoto, and Junji Akimoto, Crystal Structure of Fast Lithium-ion-conducting Cubic $Li_7La_3Zr_2O_{12}$, *Chemistry Letters*, **40**(1), p. 60–p. 62 (2011).
- 194) Yasushi Idemoto, Yuta Tsukada, Naoto Kitamura, Akinori Hoshikawa, and Toru Ishigaki, Change in Crystal Structure of $LiNi_{0.8}Co_{0.19}Cu_{0.01}O_2$ Cathode during Charge of Coin Cell Observed by Ex Situ Time-of-flight Neutron Diffraction, *Chemistry Letters*, **40**(2), p. 168–p. 170 (2011).
- 195) 井手本 康, 長谷川卓哉, 北村尚斗, 内本喜晴, Li イオン電池用正極活物質 $Li_xMn_{0.5}Ni_{0.5}O_2$ の熱力学的安定性, 結晶・電子構造と電池特性の合成条件および Li 組成依存, 電気化学および工業物理化学, **79**(1), p. 15–p. 23 (2011).
- 196) Naoto Kitamura, Yoshiyuki Korechika, Hidesato Saruwataria, Norio Takami, Yasushi Idemoto, Effect of supersonic-wave treatment in Zn aqueous solution on property, crystal structure and

- cycle performance of $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ as a cathode material for 5 V class Li ionbattery, *Solid State Ionics*, 183, p. 54-p. 59 (2011).
- 197) 関澤央輝, 北村尚斗, 井手本 康, 第一原理計算を用いたLiイオン電池用正極活物質 $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ における過剰Li及びカチオンミキシングの電子構造への影響, *Electrochemistry*, 79(2), p. 80-p. 85 (2011).
- 198) Yasushi Idemoto, Oki Sekizawa, Naoto Kitamura, Composition dependences of T_c , J_c , physical property and crystal structure of $\text{Bi}_{1.8}\text{Pb}_{0.3}\text{Sr}_{2.0}\text{Ca}_{0.9}\text{Y}_{0.1}\text{Cu}_{2.0-x}\text{M}_x\text{O}_y$ ($\text{M}=\text{Zr}, \text{Zn}$) superconducting oxide, *Physica C*, 471, p. 205-p. 212 (2011).
- 199) 関澤央輝, 北村尚斗, 井手本 康, 第一原理計算を用いたLiイオン電池用正極活物質 $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ の脱Liに伴う電子構造への影響, *Material Technology*, 29(2), p. 59-p. 64 (2011).
- 200) Naohiko Abe, Masahiko Hoshino, Naoto Kitamura, Akira Ichiryu, Yasushi Idemoto, Evaluation and Reliability Improvement Investigation of Electrical Characteristics of $\text{Ba}_{0.9}\text{Sr}_{0.1}\text{TiO}_3$ Dielectric Films by Electrophoretic Deposition Method, *Jpn. J. Appl. Phys.*, 50, p. 1-p. 7 (2011).
- 201) Oki Sekizawa, Takuya Hasegawa, Naoto Kitamura, Yasushi Idemoto, Crystal and electronic structure change determined by various method for delithiation process of $\text{Li}_x(\text{Ni}, \text{Mn})\text{O}_2$ -based cathode material, *J. Power Sources*, 196, p. 6651-p. 6656 (2011).
- 202) Junji Akimoto, Kazuki Chiba, Norihito Kijima, Hiroshi Hayakawa, Shigenobu Hayashi, Yoshito Gotoh, and Yasushi Idemoto, Soft-Chemical Synthesis and Electrochemical Property of $\text{H}_2\text{Ti}_{12}\text{O}_{25}$ as a Negative Electrode Material for Rechargeable Lithium-Ion Batteries, *J. Electrochem. Soc.*, 158 (5) p. A546-p. A549 (2011).
- 203) Naoto Kitamura, Keitetsu Uchino, Yasushi Idemoto, Crystal and Electronic Structures of CePO₄-based Proton-Electron Mixed Conductors by Using Synchrotron X-rays, *ECS Transactions*, 33 (40) p. 59-p. 63 (2011).
- 204) Naoto Kitamura, Takuya Hasegawa, Yoshiharu Uchimoto, Koji Amezawa, Yasushi Idemoto, Dependence of property, cathode characteristics, thermodynamic stability, and average and local structures on heat-treatment condition for $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ as a cathode active material for Li-ion battery, *Electrochimica Acta*, 56, p. 9453-9458 (2011).
- 205) Hidesato Saruwatari, Tadaomi Ishikawa, Yoshiyuki Korechika, Naoto Kitamura, Norio Takami, Yasushi Idemoto, Effects of supersonic treatment on the electrochemical properties and crystal structure of $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ as a cathode material for Li ion batteries, *J. Power Sources*, 196, p. 10126-p. 10132 (2011).
- 206) 井手本 康, 北村尚斗, 石垣 徹, コインセルサイズ(試料量 8.5mg)でリチウムイオン電池用正極材料の充放電過程の中性子回折測定, 中性子産業利用協議会季報 四季, 12, p. 4 (2011).
- 207) 井手本 康, 中性子線・放射光を用いた高機能性酸化物の結晶・電子構造解析, 科学フォーラム, 2011(9), p. 15-p. 20 (2011).
- 208) 井手本 康, 溝口拓馬, 北村尚斗, Nb多量置換 $\text{Pb}(\text{Zr}, \text{Ti}, \text{Nb})\text{O}_3$ の強誘電特性と結晶構造の関係, 粉体および粉末冶金, 58(12), p. 703-p. 709 (2012).
- 209) 井手本 康, 海外中性子4施設を巡って, 波紋, 22(1), p. 3-p. 6 (2012).
- 210) 井手本 康, 田代美智, 北村尚斗, 水熱合成法および固相法で作製した BaTiO_3 における圧電・強誘電性と結晶構造の合成・焼成条件依存, 粉体および粉末冶金, 59(2), p. 101-p. 109 (2012).
- 211) Yasushi Idemoto, Naoto Kitamura, Kenichiro Ueki, Sven C. Vogel, and Yoshiharu Uchimoto, Average and Local Structure Analyses of $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3-x}\text{Al}_x)\text{O}_2$ Using Neutron and Synchrotron X-ray Sources, *J. Electrochem. Soc.*, 159 (5), p. A673-p. A677 (2012).
- 212) 井手本 康, 北村尚斗, 井川直樹, ガリウム系酸化物における格子間イオン伝導経路の可視化, 中性子産業利用協議会季報 四季, 14, p. 6 (2012).
- 213) Hidesato Saruwatari, Jun-ya Iino, Naoto Kitamura, Yasushi Idemoto, Investigation of supersonic-wave treatment effect on $\text{LiNi}_{0.60}\text{Co}_{0.22}\text{Mn}_{0.18}\text{O}_2$ as a cathode material of Li ion battery, *J. Ceram. Soc. Japan*, 120 (5), p. 175-p. 180 (2012).
- 214) Yasushi Idemoto, Taichi Ito, Naoto Kitamura, Takanori Itoh, Crystal structure and ferroelectric property of $\text{Bi}_4\text{Si}_3\text{O}_{12}$ -added $\text{Bi}_{4-x}\text{Sm}_x\text{Ti}_3\text{O}_{12}$, *J. Phys. Chem. Solids*, 73(10), p. 1223-p. 1228 (2012).

- 215) Yasushi IDEMOTO, Tetsuya KASHIMA, Naoto KITAMURA, Investigation on Crystal and Electronic Structures of $0.5\text{Li}_2\text{MnO}_3\text{-}0.5\text{LiMn}_x\text{Ni}_x\text{Co}_{(1-2x)}\text{O}_2$ ($x = 1/3, 5/12$) Samples Heat-Treated under Vacuum Reducing Conditions, *Electrochemistry*, 80(10), p. 791-p. 799 (2012).
- 216) Naoto Kitamura, Keitetsu Uchino, Yasushi Idemoto, Particle morphology, electrical conductivity, crystal and electronic structures of hydrothermally synthesized(Ce, Sr)PO₄, *J. Materials Science*, 47, p. 6220-p. 6225 (2012).
- 217) 井手本 康, 北村尚斗, 中性子, 放射光を駆使したリチウムイオン電池正極材料の平均・局所構造, 热力学的安定性と電池特性, 電池技術, 24, p. 19-p. 27 (2012).
- 218) Y. Idemoto, N. Kitamura, and T. Ishigaki, Crystal Structure Change of Cathode for Li Ion During Change of Coin Type Cell Observed by Ex-Situ Time-of-Flight Neutron Diffraction, *MLF A n n u a / Report 2010*, p. 18-p. 19, (2012).
- 219) Yasushi Idemoto, Ryo Muroi, Naoto Kitamura, and Takanori Itoh, Crystal and Electronic Structure Analyses on Bi₂SiO₅-Added SrBi₂(Ta_{1-x}Nb_x)₂O₉ by Using Pulsed Neutron and Synchrotron X-Ray Sources, *J. Am. Ceram. Soc.*, 95 (12), p. 3906-p. 3911 (2012).
- 220) 井手本 康, Li イオン電池正極材料の熱力学安定性, 結晶・電子構造と電池特性, 热測定, 40 (1), p. 17-p. 22, (2013).
- 221) Naoto Kitamura, Sven C. Vogel, Yasushi Idemoto, Local structure analysis on (La, Ba)(Ga, Mg)_{0.3-δ} by the pair distribution function method using a neutron source and density functional theory calculations, *Solid State Commun.*, 163, p. 46-p. 49 (2013).
- 222) Naoto KITAMURA, Naoki HAMAO, Sven C. VOGEL, and Yasushi IDEMOTO, Oxide-Ion Conduction, Average and Local Structures of LaSrGa_{1-x}Mg_xO_{4-σ} with Layered Perovskite Structure, *Electrochemistry*, 81(6), p. 448-p. 453 (2013).
- 223) 井手本 康, 北村尚斗, LaBaGaO₄系プロトン伝導体の結晶構造解析, 中性子産業利用協議会季報四季, 19, p. 5 (2013).
- 224) Naoto KITAMURA, Yusuke KUMAGAI, Yasushi IDEMOTO, Oxide-ion Conduction Property of La_{1+x}Sr_{1-x}Ga₃O_{7+δ} Synthesized by Solution Method, 粉体および粉末冶金, 60(9), p. 393-p. 396 (2013).
- 225) Hamao N., Kitamura N., Itoh T., Igawa N., Idemoto Y., Protonic conduction, crystal and electronic structures of La_{0.9}Ba_{1.1}Ga_{0.95}Mg_{0.05}O_{4-δ}, *Solid State Ionics*, 253, p. 123-p. 129 (2013).
- 226) 井手本 康, リチウムイオン電池正極材料の平均・局所構造と電池特性, 波紋, 23(4), p. 272-p. 277 (2013).
- 227) Naoto Kitamura, Junpei Yamamoto, Yasushi Idemoto, Crystal and Electronic Structures of LaP₃O₉-Based Protonic Conductors Synthesized by Liquid-Phase Method, *ECS Transactions*, 58(2), p. 167-p. 172 (2013).
- 228) Naoto Kitamura, Ryo Muroi, Takanori Itoh, and Yasushi Idemoto, Relationship between Ferroelectric Performance, Crystal and Electronic Structures in SrBi₂(Ta_{1-x}Nb_x)_{1.95}M_{0.05}O₉ (M =W, Mo), *ECS Journal of Solid State Science and Technology*, 2(11), p. N211-p. N216 (2013).
- 229) 井手本 康, 遠藤 裕章, 北村 尚斗, リチウムイオン電池正極材料 LiMn_{0.5}Ni_{0.5}O₂の正極特性と結晶・電子構造における置換効果, *Electrochemistry*, 81(12), p. 971-p. 976 (2013).
- 230) Naoki Hamao, Naoto Kitamura, Naoya Ishida, Yasushi Idemoto, Defect Structure Analysis of LaBaGaO₄-Based Protonic Conductor by Pair Distribution Function Method and First Principle Calculation, *Material Technology*, 31(6), p. 148-p. 153 (2013).
- 231) Yasushi Idemoto, Masahiro Inoue, Naoto Kitamura, Composition dependence of average and local structure of $x\text{Li}(\text{Li}_{1/3}\text{Mn}_{2/3})\text{O}_2-(1-x)\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3})\text{O}_2$ active cathode material for Li ion batteries, *J. Power Sources*, 259, p. 195-p. 202 (2014).
- 232) Naoto Kitamura, Takuma Mizoguchi, Takanori Itoh, Yasushi Idemoto, Ferroelectric performances and crystal structures of (Pb, La)(Zr, Ti, Nb)O₃, *Journal of Solid State Chemistry*, 210, p. 275- p. 279 (2014).
- 233) Tsuchiya T., Matsuura T., Shinoda K., Nakajima T., Akimoto J., Idemoto Y., Tunable

- photoluminescent properties of Eu-doped β -Ga₂O₃ phosphor thin films prepared via excimer laser-assisted metal organic decomposition, *Japanese Journal of Applied Physics*, 53(5), SPEC. ISSUE 1 (2014).
- 234) Junji Akimoto, Akira Takashima, Kunimitsu Kataoka, Naoya Ishida, Yasushi Idemoto, Synthesis, crystal structure and electrochemical properties of Li_{0.55}Co_{0.5}Mn_{10.5}O₂ with the 06-type layered structure, *Solid State Ionics*, 263, p. 167- p. 171 (2014).
- 235) Naoki HAMAO, Naoto KITAMURA, Naoya ISHIDA, Takashi KAMIYAMA, Shuki TORII, Masao YONEMURA, and Yasushi IDEMOTO, Study of Crystal Structure and Protonic Conduction Properties of La_{0.9}Ba_{1.1}GaO_{4- δ} Prepared by Liquid Synthesis Method, *Electrochemistry*, 82(7), p. 550- p. 556 (2014).
- 236) Naoto Tanibata, Kousuke Noi, Akitoshi Hayashi, Naoto Kitamura, Yasushi Idemoto and Masahiro Tatsumisago, X-ray Crystal Structure Analysis of Sodium-Ion Conductivity in 94Na₃PS₄·6Na₄SiS₄ Glass-Ceramic Electrolytes, *Chem Electro Chem*, 1 (7), p. 1130-p. 1132 (2014).
- 237) Naoto Kitamura, Jaakko Akola, Shinji Kohara, Kenjiro Fujimoto, Yasushi Idemoto, Proton Distribution and Dynamics in Y- and Zn-Doped BaZrO₃, *The Journal of Physical Chemistry C*, 118(33), p. 18846-p. 18852 (2014).
- 238) Yasushi IDEMOTO, Investigation into properties of highly functional oxides using quantum beam and thermodynamic measurement, *J. Ceram. Soc. Japan*, 122 (10), p. 839-p. 845 (2014).
- 239) Yasushi Idemoto, Ryosuke Kawai, Naoya Ishida, Naoto Kitamura, Characterization, average and electronic structures during charge- discharge cycle in 0.6Li₂MnO₃- 0.4Li_{(Co_{1/3}Ni_{1/3}Mn_{1/3})O₂} solid solution of a cathode active material for Li-ion battery, *J. Power Sources*, 273, p. 1023-p. 1029 (2015).
- 240) 井手本 康, 中性子, 放射光X線, 理論計算を駆使したリチウムイオン電池正極材料の開発, セラミックス, 49 (11), p. 926-p. 930 (2014).
- 241) Yasushi Idemoto, Ryo Yamamoto, Naoya Ishida, Naoto Kitamura, Change in Local Structure of 0.4Li₂MnO₃- 0.6LiMn_{1/3}Ni_{1/3}Co_{1/3}O₂ During First Discharge Process, *Electrochimica Acta*, 153, p. 399-p. 408 (2015).
- 242) 笹川 哲也, 原田 康宏, 稲垣 浩貴, 高見 則雄, 北村 尚斗, 井手本 康, Li過剰層状酸化物系リチウムイオン電池正極材料における充放電過程の結晶構造解析, 中性子産業利用協議会季報 四季, 25, p. 4-p. 5 (2014).
- 243) 井手本 康, 石田 直哉, 北村 尚斗, リチウムイオン電池用正極活物質の充放電過程における原子核密度分布の可視化, 中性子産業利用協議会季報 四季, 25, p. 5 (2014).
- 244) Takanori Itoh, Manabu Inukai, Naoto Kitamura, Naoya Ishida, Yasushi Idemoto, Takashi Yamamoto, Correlation between structure and mixed ionic-electronic conduction mechanism for (La_{1-x}Sr_x)CoO_{3- δ} using synchrotron X-ray analysis and first principles calculations, *J. Materials Chemistry A*, 3, p. 6943-p. 6953 (2015).
- 245) High-temperature protonic conduction in LaB₀₃ substituted with alkaline earth elements, Naoto Kitamura, Koji Amezawa, Nobuyuki Takahashi, Jun-ichi Yamada, Teiichi Hanada, Naoya Ishida, Yasushi Idemoto, *J. Ceram. Soc. Japan*, 123 (4), p. 253-p. 256 (2015).
- 246) Takanori Itoh, Masashi Mori, Manabu Inukai, Hiroaki Nitani, Takashi Yamamoto, Takafumi Miyanaga, Naoki Igawa, Naoto Kitamura, Naoya Ishida, and Yasushi Idemoto, Effect of Annealing on Crystal and Local Structures of Doped Zirconia Using Experimental and Computed Methods, *The Journal of Physical Chemistry C*, 119, p. 8447-p. 8458 (2015).
- 247) Yasushi Idemoto, Yuta Tsukada, Naoto Kitamura, Crystal and electronic structures, thermodynamic stability, and cathode performance of Li(Ni, Co, M)O₂ (M = Cu, Zn), *Solid State Ionics*, 279(15), p. 6-p. 10 (2015).
- 248) Tetsuya Sasakawa, Yasuhiro Harada, Norio Takami, Naoto Kitamura, Yasushi Idemoto, Influence of Initial Charge Condition on Structural Stability and Electrochemical Properties of Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Cathode Materials, *Electrochimica Acta*, 174, p. 406-p. 410 (2015).
- 249) Yasushi Idemoto, Kazumasa Akatsuka, Naoto Kitamura, Investigations on average and local structures of Li(Li_{1/6}Mn_{1/2}Ni_{1/6}Co_{1/6})O₂ by the pair distribution function and the density functional theory, *J. Power Sources*, 299, p. 280-p. 285 (2015).

- 250) Yasushi IDEMOTO, Yusuke SERA, Naoya ISHIDA, and Naoto KITAMURA, Average and Local Crystal Structure and Electronic Structure of $0.4\text{Li}_2\text{MnO}_3\text{-}0.6\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$ Using First-principles Calculations and Neutron Beam and Synchrotron X-Ray Sources, *Electrochemistry*, 83(10), p. 879-p. 884 (2015).
- 251) F. Mihara, K. Takeuchi, S. Tamura, Y. Idemoto, Y. Kogo, The Use of Scallop Shell Powder as a Method of Extracting Alkaline-earth Metals, *ECS Transactions*, 66 (39) p. 9-p. 13 (2015).
- 252) Naoto KITAMURA, Ryutaro SHIBATA, Daichi ARAKI, Naoya ISHIDA and Yasushi IDEMOTO, Synthesis of Plate-Like (Ce, Sr) PO_4 and Preparation of Oriented Film by Electrophoretic Deposition Method, *表面技術*, 66(10), p. 484-488 (2015).
- 253) 北村 尚斗, 飯山 昂, 井手本 康, $(\text{Bi}, \text{La})_4\text{Ti}_3\text{O}_{12}$ 系強誘電体の物性および強誘電特性に与える TiF_3 添加の影響, *Material Technology*, 33(6), p. 126-p. 133 (2015).
- 254) Mihara F., Takeuchi K., Tamura S., Idemoto Y., Kogo Y., The Use of Scallop Shell Powder as a Method of Extracting Strontium, *MRS Advances*, 1(52), p. 3525-p. 3532 (2016).
- 255) Naoto KITAMURA, Kimihiro KANEKO, Hiroki KAMAGATA, Naoya ISHIDA and Yasushi IDEMOTO, Hydrothermal synthesis of lanthanum silicate nanopowder and film preparation by electrophoretic deposition method, *J. Ceram. Soc. Japan*, 124 (1), p. 29-p. 33 (2016).
- 256) Naoto Kitamura, Jun-ichi Yamada, Koji Amezawa, Teiichi Hanada, Yasushi Idemoto, Protonic conduction in SmBO_3 with high-temperature phase, *Solid State Ionics*, 285, p. 170-p. 174 (2016).
- 257) 井手本 康, 石田 直哉, 北村 尚斗, 中性子と放射光を相補利用したLiイオン電池正極材料の充放電サイクルにおける結晶・電子構造解析, 中性子産業利用協議会季報 四季, 30, p. 6 (2016).
- 258) Naoya Ishida, Norihide Tamura, Naoto Kitamura, Yasushi Idemoto, Crystal and electronic structure analysis and thermodynamic stabilities for electrochemically or chemically delithiated $\text{Li}_{1.2-x}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}\text{O}_2$, *J. Power Sources*, 319, p. 255-p. 261 (2016).
- 259) Yuki HAMADA, Naoki HAMAO, Kunimitsu KATAOKA, Naoya ISHIDA, Yasushi IDEMOTO and Junji AKIMOTO, Single crystal synthesis, crystal structure and electrochemical property of spinel-type LiCoMnO_4 as 5 V positive electrode materials, *J. Ceram. Soc. Japan*, 124 (6), p. 29-p. 33 (2016).
- 260) 北村 尚斗, 佃 圭介, 井手本 康, $\text{Ba}(\text{Zr}, \text{Y})_{0.3-\delta}$ 系プロトン伝導体の導電特性および平均・局所構造に与える ZnO 添加の影響, *Material Technology*, 34(3), p. 51-p. 58 (2016).
- 261) Takanori Itoh, c, Masashi Mori, Yasushi Idemoto, Hideto Imai, Masanobu Nakayama, Annealing effect on phase stability of doped zirconia using experimental and computational studies, *Solid State Ionics*, 297, p. 20-p. 28 (2016).
- 262) Naoto KITAMURA, Naoya ISHIDA, and Yasushi IDEMOTO, Atomic-Configuration Analysis on $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ by Reverse Monte Carlo Simulation, *Electrochemistry*, 84(10), p. 789-p. 792 (2016).
- 263) Yasushi IDEMOTO, Ayano HORIE, Naoya ISHIDA, and Naoto KITAMURA, Crystal Structure Analysis in the Charge and Discharge Process of Li-ion Battery Cathode-material $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$, *Electrochemistry*, 84(10), p. 802-p. 807 (2016).
- 264) Naoya ISHIDA, Kazumasa SAKATSUME, Naoto KITAMURA and Yasushi IDEMOTO, Improvement of electrochemical property of pyroxene-type $\text{LiFeSi}_2\text{O}_6$ and crystal-structure analysis, *J. Ceramic Soc. Japan*, 125(4), p. 281-p. 286 (2017).
- 265) Yasushi Idemoto, Takuya Sekine, Naoya Ishida Naoto Kitamura, Change of local structures for $0.5\text{Li}_2\text{MnO}_3\text{-}0.5\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$ in first charge process of different rates, *J. Materials Science*, 52(14), p. 8630-p. 8649 (2017).
- 266) Yasushi Idemoto, Shigeru Akabane, Naoya Ishida and Naoto Kitamura, Ferroelectric properties, average and local structures of $(\text{Bi}, \text{RE})_4(\text{Ti}, \text{Nb})_3\text{O}_{12}$ ($\text{RE} = \text{La}, \text{Pr}, \text{Nd}$), *Japanese Journal of Applied Physics*, 56(10), p. 101501-1 -p. 101501-5 (2017).
- 267) Naoya Ishida, Ryuta Nishigami, Naoto Kitamura, and Yasushi Idemoto, Crystal Structure Analysis and Electrochemical Properties of Chemically Delithiated $\text{Li}_{0.13}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}\text{O}_2$ as Cathode Material for Rechargeable Mg Batteries *Chemistry Letters*, 46(10), p. 1508-p. 1511 (2017). [Editor's Choice]
- 268) 北村尚斗, 井手本康, 中性子・放射光X線全散乱測定による結晶性酸化物の欠陥分布シミュレーション, *粉体および粉末冶金*, 64(9), p. 489-p. 494 (2017).

- 269) Yasushi IDEMOTO, Seiji NAKAYAMA, Naoya ISHIDA, and Naoto KITAMURA, Change of Average, Local Structures for $0.5\text{Li}_2\text{MnO}_3$ - $0.5\text{LiMn}_{5/12}\text{Ni}_{5/12}\text{Co}_{1/6}\text{O}_2$ by Heat-Treatment under Vacuum, *Electrochemistry*, 85(10), p. 660-p. 666 (2017).
- 270) Sudhagar Pitchaimuthu, Kaede Honda, Shoki Suzuki, Akane Naito, Norihiro Suzuki, Ken-ichi Katsumata, Kazuya Nakata, Naoya Ishida, Naoto Kitamura, Yasushi Idemoto, Takeshi Kondo, Makoto Yuasa, Osamu Takai, Tomonaga Ueno, Nagahiro Saito, Akira Fujishima, and Chiaki Terashima, Solution Plasma Process-Derived Defect-Induced Heterophase Anatase/Brookite TiO_2 Nanocrystals for Enhanced Gaseous Photocatalytic Performance, *ACS Omega*, 3, p. 898-p. 905 (2017).
- 271) Takanori Itoh, Yasushi Idemoto, Hideto Imai, Local structure change around Co and Fe ions in $(\text{La}_{0.6}\text{Sr}_{0.4})(\text{Co}_{0.2}\text{Fe}_{0.8})\text{O}_{3-\delta}$ as revealed by in-situ X-ray absorption spectroscopy and first-principles calculation, *J. Solid State Chem.*, 258, p. 702-p. 711 (2018).
- 272) Yasushi Idemoto, Takuya Hiranuma, Naoya Ishida, Naoto Kitamura, Effect of operating temperature on local structure during first discharge of $0.4\text{Li}_2\text{MnO}_3$ - $0.6\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$ electrodes, *J. Power Sources*, 378, p. 198-p. 208 (2018).
- 273) Sakuda A., Yamauchi A., Yubuchi S., Kitamura N., Idemoto Y., Hayashi A., Tatsumisago M., Mechanochemically Prepared $\text{Li}_2\text{S}-\text{P}_2\text{S}_5-\text{LiBH}_4$ Solid Electrolytes with an Argyrodite Structure, *ACS Omega*, 3(5), p. 5453-p. 5458 (2018).
- 274) 井手本 康, 石田 直哉, 北村 尚斗, 第一原理計算・中性子・放射光 X 線を併用した $0.4\text{Li}_2\text{MnO}_3$ - $0.6\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3})\text{O}_2$ の平均・局所・電子構造解析, 中性子産業利用協議会季報 四季, 38, p. 10 (2018).
- 275) Naoya Ishida, Kazuki Miyazawa, Naoto Kitamura, Junji Akimoto, Yasushi Idemoto, Average and local structure analysis of metastable $\text{Li}_x\text{Mn}_{0.9}\text{Ti}_{0.1}\text{O}_2$ by synchrotron X-ray and neutron sources, *Solid State Ionics*, 325, p. 209-p. 213 (2018).
- 276) 石田 直哉, 井手本 康, 正極材(EV シフトのキー)テクノロジー車載電池材料の最新潮流, リチウムイオン電池部材の技術動向, 工業材料, 66(10), p. 30-p. 35 (2018).
- 277) Riku Iwasaki, Eikichi Tanaka, Toshinari Ichihashi, Yasushi Idemoto and Kohei Endo, Semireduction of Alkynes Using Formic Acid with Reusable Pd-Catalysts, *J. Organic Chem.*, 83, p. 13574-p. 13579 (2018).
- 278) Yasushi Idemoto, Fumihiro Tejima, Naoya Ishida, Naoto Kitamura, Average, electronic, and local structures of $\text{LiMn}_{2-x}\text{Al}_x\text{O}_4$ in charge-discharge process by neutron and synchrotron X-ray, *J. Power Sources*, 410-411, p. 38-p. 44 (2019).
- 279) Naoto KITAMURA, Tomoyuki KOSUGE and Yasushi IDEMOTO, Crystal and Electronic Structures, and Oxide-Ion Conduction Path of $\text{Pr}_{1+x}, \text{Sr}_{1-x}, \text{Ga}_{3}\text{O}_{7+x/2}$, *J. Jpn. Soc. Powder Powder Metallurgy*, 65(12), p. 756-p. 760 (2018).
- 280) 井手本 康, 北村 尚斗, 石田 直哉, リチウムイオン電池用正極材料の平均・局所構造と充電率との関係, 中性子産業利用協議会季報 四季, 41, p. 9-p. 10 (2018).
- 281) Kazuki Chiba, Yuki Hamada, Hiroshi Hayakawa, Naoki Hamao, Kunimitsu Kataoka, Mikito Mamiya, Norihito Kijima, Naoya Ishida, Yasushi Idemoto, Junji Akimoto, A novel synthetic route of micrometer-sized LiCoMnO_4 as 5 V cathode material for advanced lithium ion batteries, *Solid State Ionics*, 333, p. 9-p. 15 (2019).
- 282) M. Murakami, S. Kohara, N. Kitamura, J. Akola, H. Inoue, A. Hirata, Y. Hiraoka, Y. Onodera, I. Obayashi, J. Kalikka, N. Hirao, T. Musso, A. S. Foster, Y. Idemoto, O. Sakata and Y. Ohishi, Ultrahigh-pressure form of SiO_2 glass with dense pyrite-type crystalline homology, *PHYSICAL REVIEW B* 99, p. 045153-1-p. 045153-12 (2019).
- 283) Fumihiro MIHARA, Yuta SHUSEKI, Sanae TAMURA, Koichi UI, Kenta KIKUCHI, Atsuo YASUMORI, Shinichi KOMABA, Mika FUKUNISHI, Yasuo KOGO, Yasushi IDEMOTO and Ken TAKEUCHI, Removal of strontium from aqueous solutions using scallop shell powder, *J. Ceramic Soc. Japan*, 127(2) p. 111-p. 116 (2019).

- 284) Naoto Kitamura, Yuhei Tanabe, Naoya Ishida and Yasushi Idemoto, The atomic structure of a $MgCo_2O_4$ nanoparticle for a positive electrode of a Mg rechargeable battery, *Chem. Commun.*, 55, p. 2517–p. 2520 (2019).
- 285) Idemoto Y., Mizutani Y., Ishibashi C., Ishida N., Kitamura N., Synthesis, crystal structure and electrode properties of spinel-type $MgCo_{2-x}Mn_xO_4$, *Electrochemistry*, 87(4), p. 220–p. 228 (2019).
- 286) Yasushi Idemoto, Tsukiko Takahashi, Naoya Ishida, Masanobu Nakayama, and Naoto Kitamura Synthesis, Crystal Structure Analysis, and Electrochemical Properties of Rock-Salt Type $Mg_xNi_yCo_2O_2$ as a Cathode Material for Mg Rechargeable Batteries, *Inorganic Chem.*, 58(9), p. 5664–p. 5670 (2019).
- 287) Keishi Tsukiyama, Mihiro Takasaki, Naoto Kitamura, Yasushi Idemoto, Yuya Oaki, Minoru Osada, Hiroaki Imai, Enhanced oxide-ion conductivity of solid-state electrolyte mesocrystals, *Nanoscale*, 11, P. 4523–p. 4530 (2019).
- 288) Naoto Kitamura, Yusuke Kubo, Naoya Ishida, Yasushi Idemoto, Study of atomic ordering across the layer in lithium-rich layered positive electrode material towards preparation process optimization, *J. Power Sources*, 437, (2019).
- 289) Naoto KITAMURA, Ryoji YUGETA, Naoya ISHIDA, and Yasushi IDEMOTO, Partial Substitution Effect on Electrical Conductivity, Crystal Structure, and Electron Density Distribution of $LaBaGaO_4$ -Based Protonic Conductor, *Electrochemistry*, 87(5), p. 265–p. 269 (2019).
- 290) Yasushi IDEMOTO, Natsumi KAWAKAMI, Naoya ISHIDA, and Naoto KITAMURA, Synthesis, Electrochemical Properties and Changes of Crystal and Electronic Structures in Charge/Discharge Process of Spinel Type Cathode-Materials $Mg(Mg_{0.5}V_{1.5-x}Ni_x)O_4$ ($x = 0, 0.1, 0.2, 0.3$) for Magnesium Secondary Batteries, *Electrochemistry*, 87(5), p. 281–p. 288 (2019).
- 291) Naoto Kitamura, Naoya Hayashi, Naoya Ishida, Yasushi Idemoto, Local Structure in A-site-deficient Perovskite $Na_{0.5}Bi_{0.5}TiO_3$ and Its Effect on Electrical Conduction, *Chemistry Letters*, 48, p. 1398–p. 1401 (2019).
- 292) Naoya Ishida, Shoichiro Ando, Naoto Kitamura, Yasushi Idemoto, Crystal structure and cathode properties of delithiated $Li_{1-x}Mn_{1/3}Ni_{1/3}Co_{1/3}O_2$ for Mg rechargeable batteries, *Solid State Ionics*, 343 (2019).
- 293) Chiaki Ishibashi, Yusuke Mizutani, Naoya Ishida, Naoto Kitamura, and Yasushi Idemoto, Crystal and Electronic Structures of $MgCo_{2-x}Mn_xO_4$ as Cathode Material for Magnesium Secondary Batteries Using First-Principles Calculations and Quantum Beam Measurements, *Bull. Chem. Soc. Jpn.*, 92, p. 1950–p. 1959 (2019).
- 294) Naoto Kitamura, Yusuke Araki, Naoya Ishida, and Yasushi Idemoto, Local Structures in Disordered Rocksalt-Type Li_3NbO_4 -Based Positive Electrode Materials for a Lithium-Ion Battery, *Physica Status Solidi (B) Basic Research*, p. 2000112–1–p. 2000112–7 (2020).
- 295) Naoya Ishida, Naoto Yamazaki, Toshihiko Mandai, Naoto Kitamura, and Yasushi Idemoto, Crystal Structures and Cathode Properties of Chemically and Electrochemically Delithiated $Li_xNi_{0.5}Mn_{0.5}O_2$ with Applications to Mg Rechargeable Batteries, *J. Electrochem. Soc.*, 167(10), p. 100547–1–p. 100547–7 (2020).
- 296) Yasushi Idemoto, Natsumi Kawakami, Naoya Ishida, Naoto Kitamura, Synthesis, electrochemical properties, and changes in crystal and electronic structures during charge/discharge process of spinel-type cathode materials $Mg_4V_{5-x}Ni_xO_{12}$ ($x=0, 0.3, 0.6, 1.0$) for magnesium secondary batteries, *J. Power Sources*, 455 (2020).
- 297) Junji Akimoto, Yuki Hamada, Naoya Ishida, Yasushi Idemoto, Yoshitaka Matsushita, and Kunimitsu Kataoka, Structural Change and Morphological Surface Degradation upon Electrochemical Li Extraction from a Single Crystal of Spinel-type $LiNi_{0.5}Mn_{1.5}O_4$, *Crystal Growth and Design*, 20(7), p. 4533–p. 4539 (2020).

- 298) Naoto KITAMURA, Yuto TAMAI, Naoya ISHJDA and Yasushi IDEMOTO, Effect of Pb Substitution on Electrical Conduction and Sinterability of LaPO₄-Based Protonic Conductor, *J. Jpn. Soc. Powder Powder Metallurgy*, 67, p. 391-p. 395 (2020).
- 299) Yuta SHUSEKI, Fumihiro MIHARA, Atsuo YASUMORI, Yasushi IDEMOTO, Setsuko KOURA and Ken TAKEUCHI, Influence of amorphous calcium carbonate on strontium ion removability from aqueous solution, *J. Ceramic Soc. Japan*, 128(8), p. 560-p. 564 (2020).
- 300) Chiaki Ishibashi, Naoya Ishida, Naoto Kitamura, and Yasushi Idemoto, Determining the crystal and electronic structures of the magnesium secondary battery cathode material MgCo_{2-x}Mn_xO₄ using first-principles calculations and a quantum beam during discharge, *J. Materials Science*, 55(28), p. 13852-p. 13870 (2020).
- 301) Naoya Ishida, Yuta Nakamura, Toshihiko Mandai, Naoto Kitamura, Yasushi Idemoto, Synthesis, cathode property and crystal, electronic and local structures of Mg₂Mo₃O₈ as Mg rechargeable battery cathode material, *Solid State Ionics*, 354, p. 115413-1-p. 115413-7 (2020).
- 302) Naoto Kitamura, Kakeru Ishizaki, Naoya Ishida, Yasushi Idemoto, Defect Structure and Oxide-ion Conduction in (La, Sr)₂NiO_{4+δ} with Layered Perovskite Structure, *Chemistry Letters*, 49, p. 1071-p. 1074 (2020).
- 303) Yasushi IDEMOTO, Naoki FUJISHIRO and Naoto KITAMURA, Ferroelectric and piezoelectric properties, and crystal structures of (Bi, Na)(Ti, M)O₃ (M = Nb, Ta), *J. Ceramic Soc. Japan*, 128(10), p. 766-p. 771 (2020).
- 304) Noriko KASAI, Makoto KATO, Naoya ISHIDA, Naoto KITAMURA, Yasushi IDEMOTO, Safety Test Methods Simulating Internal Short Circuit and the Mechanism for Safety Improvement of Li-ion Batteries by Heat Resistant Separators, *Electrochemistry*, 88(6), p. 555-p. 559 (2020).
- 305) Yasushi Idemoto, Mai Ichiyama, Naoya Ishida, Naoto Kitamura, Structural and electronic properties of spinel type Mg_{1+y}Co_{2-x-y}Mn_xO₄ for cathode applications in magnesium rechargeable batteries, *Journal of Power Sources*, 482(15), p. 228920-1-p. 228920-9 (2021).
- 306) Ishida, N., Tajima, T., Kitamura, N., Idemoto, Y., Single-phase synthesis, average, electronic, and local structure and cathode properties of pyroxene type LiFeSi₂O₆, *Ionics*, 27, p. 925-p. 933 (2021).
- 307) 井手本 康, 石田 直哉, Mg 二次電池用正極材料の探索と量子ビームを用いた結晶・電子構造解析, セラミックス, 56 (5), p. 337-p. 342 (2021).
- 308) Naoya ISHIDA, Ryuta NISHIGAMI, Masaki MATSUI, Toshihiko MANDAI, Kiyoshi KANAMURA, Naoto KITAMURA, Yasushi IDEMOTO, Revisiting Delithiated Li_{1.2}Mn_{0.54}Ni_{0.13}Co_{0.13}O₂: Structural Analysis and Cathode Properties in Magnesium Rechargeable Battery Applications, *Electrochemistry*, 89(4), p. 329-p. 333 (2021).
- 309) Naoya Ishida, Kotaro Kawagoe, Naoto Kitamura, Junji Akimoto, Yasushi Idemoto, Average and local structure analysis of Na/Li ion-exchanged Li_x(Mn, Ni, Ti)O₂ using synchrotron X-ray and neutron sources, *J. Solid State Chem.*, 25(4), p. 1319-p. 1326 (2021).
- 310) Chiaki ISHIBASHI, Mai ICHIYAMA, Naoya ISHIDA, Naoto KITAMURA, Yasushi IDEMOTO, Theoretical Study Using First-Principles Calculations of the Electronic Structures of Magnesium Secondary Battery Cathode Materials MgCo_{2-x}Mn_xO₄ (x = 0, 0.5) in the Pristine and Discharged States, *Electrochemistry*, 89(3), p. 256-p. 266 (2021).
- 311) Noriko KASAI, Ryota FUJISHIMA, Naoya ISHIDA, Naoto KITAMURA, and Yasushi IDEMOTO, Effect of Separator and Anode on Electrochemical Characteristics and Crystal Structure of Lithium-ion Battery Cathode Material 0.4Li₂MnO₃-0.6LiMn_{1/3}Ni_{1/3}Co_{1/3}O₂, *Electrochemistry*, 89(2), p. 148-p. 156 (2021).
- 312) Chiaki Ishibashi, Mai Ichiyama, Naoya Ishida, Naoto Kitamura, Yasushi Idemoto, First-principles calculations of stable local structures and electronic structures

- of magnesium secondary battery cathode materials, $MgCo_{2-x}Mn_xO_4$ ($x=0, 0.5$), in second charged state after first discharge, *J. Solid State Electrochemistry* (2022).
- 313) Yasushi IDEMOTO, Ren OKADA, Naoya ISHIDA, Chiaki ISHIBASHI, Toshihiko MANDAI and Naoto KITAMURA, Electrochemical Properties and Crystal and Electronic Structures of Spinel $\alpha MgCo_{2-x}Mn_xO_4 - (1 - \alpha) Mg(Mg_{0.33}V_{1.67-y}Ni_y)O_4$ for Magnesium Secondary Batteries, *Electrochemistry*, 90(2), p. 027002-1-p. 027002-12 (2022).
- 314) Naoto Kitamura, Kazuki Kimura, Naoya Ishida, Chiaki Ishibashi and Yasushi Idemoto, Effects of Ca substitution on the local structure and oxide-ion behavior of layered perovskite lanthanum nickelate, *Frontiers in Materials*, p. 954729-01-p. 954729-08 (2022).
- 315) 井手本 康, 北村 尚斗, 石橋 千晶, 量子ビーム実験と理論計算を駆使した次世代蓄電池用電極材料の開発, 科学フォーラム, 430, p21-p. 25 (2022).
- 316) 井手本 康, 北村 尚斗, 量子ビームを用いた高エネルギー密度正極材料の局所構造解析, 化学工学, 86(9), p. 425-p. 428 (2022).
- 317) Naoto Kitamura, Yoichiro Konishi, Wenli Ma, Naoya Ishida, Toshihiko Mandai, Chiaki Ishibashi, Yasushi Idemoto, Positive-electrode Properties and Crystal Structures of Mg-rich Transition Metal Oxides for Magnesium Rechargeable Batteries, *Scientific Reports*, 12, p. 18097-1-p. 18097-8 (2022).
- 318) Naoto Kitamura, Tomoya Imura, Naoya Ishida, Chiaki Ishibashi, Yasushi Idemoto, Facile Surface Modification of $MgMn_2O_4$ Positive-Electrode Material for Improving Cycle Performance of Magnesium Rechargeable Batteries, *ACS Omega*, 7, p. 46915-p. 46921 (2022).
- 319) Yasushi Idemoto, Mina Takamatsu, Chiaki Ishibashi, Naoya Ishida, Toshihiko Mandai, Naoto Kitamura, Electrochemical properties and crystal and electronic structure changes during charge/discharge of spinel type cathode-materials $Mg_{1.33}V_{1.67-x}Mn_xO_4$ for magnesium secondary batteries, *Journal of Electroanalytical Chemistry*, 928, p. 1107064-1-p. 1107064-9 (2023).
- 320) Chiaki Ishibashi, Naoya Ishida, Naoto Kitamura, Yasushi Idemoto, First-principle calculations of stable configurations and electronic structures of pristine and discharged spinel $Mg_{1.31}V_{1.67-x}Ni_xO_4$ ($x = 0, 0.13$) as cathode materials for magnesium secondary batteries, *Computational Materials Science*, 221, p. 112087-1-p. 112087-11 (2023).
- 321) Chiaki Ishibashi, Ryo Takeuchi Yuki, Hirata, Naoya Ishida, Naoto Kitamura and Yasushi Idemoto, Investigation of Stable Structures and Electronic States of Spinel-Structured $MgCo_{2-z}Ni_{0.5}MnAl_zO_4$ ($Z = 0, 0.3$) as Cathode Materials for Magnesium Rechargeable Batteries Using First-Principles Calculations, *J. Phys. Chem. C*, 127(22), p. 10470-p. 10479 (2023). [Supplemental Cover]
- 322) Yasushi IDEMOTO, Kota SHIMA, Chiaki ISHIBASHI, Naoya ISHIDA, and Naoto KITAMURA, Rate Dependence of Average Crystal Structure and Electronic Structure of $0.5Li_2MnO_3 - 0.5LiMn_{10/24}Ni_{7/24}Co_{7/24}O_2$ for Lithium-Ion Battery Positive Electrode Material in Steady State, *ACS Applied Energy Materials*, 6, p. 8327-p. 8335 (2023). [Supplemental Cover]
- 323) 藤田陸人, 杉井かおり, 永井秀明, 片岡邦光, 秋本順二, 井手本康, 藤田英史, 田上幸治, $Li_4SiO_4-Li_3PO_4$ 系固体電解質材料の合成と導電特性, 日本電子材料技術協会会報, 54, p. 43-p. 46 (2024).
- 324) Naoto Kitamura, Ryo Noritake, Chiaki Ishibashi, Yasushi Idemoto, Effect of heat treatment on positive electrode properties and crystal structures of Mo-modified $MgMn_2O_4$, *Chemistry Letters*, 53(7) p. upae117-1-upae117-5 (2024).
- 325) Shuya Sato, Masashi Miyakawa, Takashi Taniguchi, Yohei Onodera, Koji Ohara, Kazutaka Ikeda, Naoto Kitamura, Yasushi Idemoto and Shinji Kohara, Synthesis of hyperordered permanently densified silica glasses by hot compression above the glass transition temperature, *J. Ceram. Soc. Japan*, 132(7) p. 427-p. 433 (2024).

- 326) Naoto Kitamura, Ryu Nagai, Chiaki Ishibashi, Yasushi Idemoto, Effect of Intermediate-Range Structure on Negative Electrode Properties of Wadsley-Roth Phase $Ti_2Nb_{10}O_{29}$, *Electrochemistry*, 92(8), p. 087002-1-p. 087002-5 (2024).
- 327) 北村尚斗, 井手本 康, Wadsley-Roth 相酸化物の負極特性と原子配列の関係, セラミックス, 59 (9), p. 600-p. 603 (2024).
- 328) Junji Akimoto, Mitsuhiro Sada, Yasushi Idemoto, Kunimitsu Kataoka, High total Li-ion conductivity of $LiTa_2PO_8$ ceramics sintered using Bi_2O_3 as an additive *Ceramics International*, 50 p. 39032-p. 39039 (2024).
- 329) Naoto Kitamura, Hikari Matsubara, Koji Kimura, Ippei Obayashi, Yohei Onodera, Ken Nakashima, Hidetoshi Morita, Motoki Shiga, Yasuhiro Harada, Chiaki Ishibashi, Yasushi Idemoto, Koichi Hayashi, Relationship between network topology and negative electrode properties in Wadsley-Roth phase $TiNb_2O_7$, *NPG Asia Materials*, 16 p. 62-1-p. 62-13 (2024).
- 330) Shinji Kohara, Shuya Sato, Motoki Shiga, Yohei Onodera, Hirokazu Masai, Toru Wakihara, Atsunobu Masuno, Akihiko Hirata, Naoto Kitamura, Yasushi Idemoto, Koji Kimura, Koichi Hayashi, Unravelling the density-driven modification of the topology generated by the interconnection of SiO_4 tetrahedra in silica polymorphs, *J. Ceram. Soc. Japan*, 132(12) p. 653-p. 662 (2024).