

Naoki Takata, Dr. Eng.

Associate Professor,

Department of Materials Process Engineering, Nagoya University

Furo-cho, Chikusa-ku, Nagoya, 464-8603, Japan

takata.naoki@material.nagoya-u.ac.jp | <https://en.nagoya-u.ac.jp/>**Research Interests**

- Metal Additive Manufacturing (Laser Powder Bed Fusion: L-PBF)
- Structural Metallic Materials (Aluminum alloy, Steel, Metal-matrix Composite)
- Microstructural Characterization (Transmission electron microscopy, Crystallography)
- Mechanical Properties (Nano/micron-scale mechanical testing, dislocation theory)
- Alloy Design (Computational phase diagrams based on thermodynamic assessment)
- Hot-dip galvanized steels (Zn alloys, Al alloys)

Education

Kyushu University (Japan). Dr. Eng., in Interdisciplinary Graduate School of Engineering Sciences (2006)

Kyushu University (Japan). Master of Eng., in Interdisciplinary Graduate School of Engineering Sciences (2003)

Kyushu University (Japan). Bachelor of Eng., in Dept. Mater. Sci. Eng. (2001)

Professional Positions

Current	Associate Professor (2017-), Dept. Mater. Process. Eng., Nagoya University (Japan)
2015 – 2016	Associate Professor, Dept. Mater. Sci. Eng., Nagoya University (Japan)
2013	Visiting Scientist, School of Eng., University of Wisconsin-Madison (WI)
2011	Visiting Faculty, School of Eng., Brown University (RI)
2007 – 2015	Assistant Professor, Dept. Mater. Sci. Eng., Tokyo Institute of Technology (Japan)
2007	Visiting Scientist, Max-Planck-Institut für Eisenforschung GmbH (Dusseldorf, Germany)
2006 – 2007	Post-Doctoral Fellow, Dept. Adaptive Machine Systems, Osaka University (Japan)

Professional Contributions to Journals

- Editorial Board, **Additive Manufacturing Letters**, Elsevier ([Additive Manufacturing Letters Editorial Board \(elsevier.com\)](https://www.elsevier.com/locate/aml))
- Associate Editor, **ISIJ International** (<https://isijint.net/> published by The Iron and Steel Institute of Japan, ISIJ)
- Associate Editor, **Journal of Japan Institute of Light Metals** (<https://www.jstage.jst.go.jp/browse/jilm> published by The Japan Institute of Light Metals, JILM)
- Outstanding Contribution in Reviewing- **Materials Characterization**, Elsevier (2018)
- Outstanding Contribution in Reviewing- **Journal of Alloys and Compounds**, Elsevier (2018)
- Outstanding Contribution in Reviewing- **Intermetallics**, Elsevier (2017)
- Best Reviewer Award - ISIJ International, ISIJ (2016)
- Outstanding Contribution in Reviewing- **Intermetallics**, Elsevier (2015)

Profiles

- **Researcher ID** : L-5564-2016
- **ORCID** : orcid.org/0000-0001-7950-476X
- **Faculty profile**: https://profs.provost.nagoya-u.ac.jp/html/100008673_en.html
- **Google Scholar**:
<https://scholar.google.co.jp/citations?user=c6hncgsAAAAJ&hl=ja&oi=ao>
- **Research Gate**: <https://www.researchgate.net/profile/Naoki-Takata>
- **LinkedIn**: <https://www.linkedin.com/in/naoki-takata-4b215971/>

1. Journal papers

1. W. Wang*, Y. Xu, M. Deguchi, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, M. Mitsuhashi, H. Nakashima, Thermal stability of refined $Al_6(Fe, Mn)$ phase formed in laser powder bed fusion process, *Journal of Alloys and Compounds*, Vol. 992, 174593, (2024). (IF: **6.2**, CT: **0**)
2. T. Zhu*, **N. Takata***, D. Kim, M. Kobashi, M. Yoshino, M. Tsukamura, Effect of Cr content on thermally activated deformation in single-crystal micropillars of Fe-Cr binary alloys, *Mater. Sci. Eng. A*, Vol. 900, 146499, (2024). (IF: **6.4**, CT: **0**)
3. Y. Hoshi*, R. Miyazawa, Y. Otani, D. Kim, **N. Takata**, M. Kobashi, Four-Dimensional Electrochemical Impedance Spectroscopy: Role of Microstructure on Corrosion Behaviour of Al-Si Alloys Additive-Manufactured by Laser Powder Bed Fusion, *Corrosion Science*, Vol. 64, 112018, (2024). (IF: **8.3**, CT: **0**)
4. **N. Takata***, H. Yokoi, D. Kim, A. Suzuki, M. Kobashi, In-Situ SEM Observation and DIC Strain Analysis for Deformation and Cracking of Hot-Dip ZnMgAl Alloy Coating, *Corrosion Science and Technology*, Vol. 23 (2), pp. 1-8, (2024). (IF: **0.5**, CT: **0**)
5. **N. Takata***, M. Liu, M. Hirata, A. Suzuki, M. Kobashi, M. Koto, H. Adachi, Microstructural origins of high strength of Al-Si alloy manufactured by laser powder bed fusion: In-situ synchrotron radiation X-ray diffraction approach, *J. Mater. Sci. Tech.*, Vol. 178, pp. 80-89, (2024). (IF: **10.9**, CT: **1**)
6. **N. Takata***, Y. Ito, R. Nishida, A. Suzuki, M. Kobashi, M. Kato, Austenite reversion behavior of maraging steel additive-manufactured by laser powder bed fusion, *ISIJ International*, Vol. 64 (2), (2024) 303-315. (IF: **1.8**, CT: **1**)
7. H. Shen, A. Suzuki*, **N. Takata**, M. Kobashi, Elucidating dominant flow channel size for capillary performance of open-cell porous wicks, *International Journal of Heat and Mass Transfer* Vol. 223, 125217, (2024). (IF: **5.2**, CT: **0**)
8. Y. Konishi, Y. Hamasaki, T. Sasaki, H. Adachi, K. Ishikawa, D. Kim, **N. Takata***, Y. Miyajima*, Effect of low-temperature annealing on electric resistivity and mechanical anisotropy of Al-Si binary alloy fabricated by laser-powder bed fusion, *Journal of Alloys and Compounds*, Vol. 982, 173737, (2024). (IF: **6.2**, CT: **0**)
9. Y. Otani*, K. Saki, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, CALPHAD-aided design of high-strength Al-Si-Mg alloys for sufficient laser powder bed fusion processability, *Journal of Alloys and Compounds*, Vol. 977, 173449, (2024). (IF: **6.2**, CT: **1**)
10. D. Kim*, **N. Takata***, H. Yokoi, A. Suzuki, M. Kobashi, Microstructural factors controlling crack resistance of Zn-Al-Mg alloy coatings prepared via hot-dip galvanizing process: Combined approach of in-situ SEM observation with digital image correlation analysis, *J. Mater. Res. Tech.* Vol. 29, 1535-1541, (2024). (IF: **6.4**, CT: **1**)
11. Y. Cheng*, T. Miyawaki, W. Wang, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Laser-beam powder bed fusion of Al-Fe-Cu alloy to achieve high strength and thermal conductivity, *Additive Manufacturing Letters*, Vol. 8, 100191, (2024). (IF: -, CT: **1**)
12. R. Li*, M. Kondo, T. Suzuki, A. Suzuki, **N. Takata***, Controlling the addition of solute Ti in Al-Mg-Zn-Cu-Ni alloy for enhanced high-temperature creep properties, *Mater. Sci. Eng. A*, Vol. 889, 145859, (2024). (IF: **6.4**, CT: **3**)
13. A. Suzuki*, T. Fujishiro, **N. Takata**, M. Kobashi, Combustion Foaming of Porous $(Al, Fe)_3Ti$ with L_{12} Ordered Structure, *Materials Transactions*, MT-M2023213, (2024). (IF: **1.2**, CT: **0**)
14. 國枝真衣, 鈴木飛鳥*, **高田尚記**, 加藤正樹, 小橋眞, レーザ粉末床溶融結合法のプロセスパラメータの効率的最適化に向けた Deposited Energy Density へのハッチ間隔の導入, *日本金属学会誌*, Vol. 86 (2024), in press. (IF: **0.3**, CT: **0**)
15. 古川雄一*, 富田高嗣, 三輪拓海, 鈴木飛鳥, **高田尚記**, 小橋眞, Al-Si 合金中の Si 含有量による炭素繊維/溶湯界面の化合物制御, *鑄造工学* Vol. 96 (2), 68-72, (2024). (IF: -, CT: **0**)
16. **N. Takata***, S. Uesugi, T. Zhu, S. Takeyasu, A. Suzuki, M. Kobashi, Influence of Dislocation Substructure on Size-Dependent Strength of High-Purity Aluminum Single-Crystal Micropillars, *Materials Transactions*, Vol. 64 (8), 1952-1958, (2023). (IF: **1.2**, CT: **1**)
17. Y. Otani*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Processability and Solidification Microstructure of Al-10Si-4.5 Mg Alloy Fabricated by Laser Powder Bed Fusion, *Key Engineering Materials*, Vol. 964, pp. 53-58, (2003). (IF: **0.2**, CT: **0**)
18. A. Suzuki*, R. Ishiguro, T. Miwa, **N. Takata**, M. Kobashi, Y. Furukawa, Evaluation of reactive wetting kinetics of carbon fibers by molten Al-Ti alloy and its application to the fabrication of Al/carbon fiber composites, *Journal of Alloys and Compounds*, Vol. 968, 172168, (2024). (IF: **6.2**, CT: **1**)
19. W. Wang*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Design of Al-Fe-Mn alloy for both high-temperature strength and sufficient processability of laser powder bed fusion, *Additive Manufacturing*,

- Vol. 68, 103524 (2023). (IF: 11, CT: 10)
20. Y. Otani*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Microstructural origin of anisotropic tensile ductility of Al-Si alloy manufactured by laser powder bed fusion, *Scripta Materialia*, Vol. 226, 115259, (2023). (IF: 6, CT: 21)
 21. S. Gong, **N. Takata**, M. Kobashi, S.E. Shin*, Wear properties of aluminum alloys fabricated by laser powder bed fusion, *Tribology International*, Vol. 187, 108769, (2023). (IF: 6.2, CT: 4)
 22. Y. Miyajima*, Y. Nakamura, Y. Konishi, K. Ishikawa, W. Wang, **N. Takata***, Effect of low-temperature annealing on electrical resistivity and mechanical properties of laser-powder bed fused AlSi10Mg alloy, *Mater. Sci. Eng. A*, Vol. 871, 144876, (2023). (IF: 6.4, CT: 9)
 23. A.M. Vilardell*, L. Pelcastre, D. Nikas, P. Krakhmalev, M. Kato, **N. Takata**, M. Kobashi, B2-structured Fe₃Al alloy manufactured by laser powder bed fusion: Processing, microstructure and mechanical performance, *Intermetallics*, Vol. 156, 107849, (2023). (IF: 4.4, CT: 1)
 24. M. Kunieda, A. Suzuki*, **N. Takata**, M. Kato, M. Kobashi, Introducing Hatch Spacing into Deposited Energy Density toward Efficient Optimization of Laser Powder Bed Fusion Process Parameters, *Materials Transactions*, Vol. 64 (6), pp. 1099-1106, (2023). (IF: 1.2, CT: 1)
 25. N. Okano, **N. Takata***, A. Suzuki, M. Kobashi, Effects of Mn and Cu Additions on Solidification Microstructure and High-Temperature Strength of Cast Al-Fe Binary Alloy, *Materials Transactions*, Vol. 64 (2), pp. 492-499, (2023). (IF: 1.2, CT: 6)
 26. 長子明弘*, 朱天齊, **高田尚記***, 鈴木飛鳥, 小橋眞, 単結晶マイクロピラー圧縮試験を用いた Al-Fe 合金積層造形体の高強度支配因子の検討, *軽金属* Vol. 73, No. 11, pp. 523-529, (2023). (IF: -, CT: 0)
 27. 近藤雅晶*, 鈴木智博, 黎若琪, **高田尚記**, Al-Mg-Zn-Cu-Ni 5 元系耐熱合金への Ti 微量添加による高温クリープ特性の向上, *軽金属* Vol. 73, No. 6, pp. 260-265, (2023). (IF: -, CT: 0)
 28. **高田尚記***, 伊藤裕也, 西田亮也, 鈴木飛鳥, 小橋眞, 加藤正樹, レーザ粉末床溶融結合法によるマルチエージング鋼積層造形体のオーステナイト逆変態挙動, *鉄と鋼*, Vol. 109 (3), 201-214, (2023). (IF: 0.4, CT: 0)
 29. **N. Takata***, M. Liu, H. Li, A. Suzuki, M. Kobashi, Fast scanning calorimetry study of Al alloy powder for understanding microstructural development in laser powder bed fusion, *Materials & Design*, Vol. 219, 110830, (2022). (IF: 8.4, CT: 37)
 30. W. Wang*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Microstructural Variations in Laser Powder Bed Fused Al-15%Fe Alloy at Intermediate Temperatures, *Materials*, Vol. 15, 447 (2022). (IF: 3.4, CT: 5)
 31. R. Li*, **N. Takata***, A. Suzuki, M. Kobashi, Design of heat-resistant Al-Mg-Zn-Cu-Ni quinary alloy: Controlling intermetallic phases and mechanical performance at elevated temperature, *Mater. Sci. Eng. A*, Vol. 857, 144055, (2022). (IF: 6.4, CT: 10)
 32. T. Zhu*, H. Li, **N. Takata***, M. Kobashi, M. Yoshino, Effect of solute Ni on thermal activation process of plastic deformation in Fe-18Cr single-crystal micropillars, *Mater. Sci. Eng. A*, Vol. 857, 144076, (2022). (IF: 6.4, CT: 5)
 33. **N. Takata***, M. Liu, A. Suzuki, M. Kobashi, M. Kato, Negative strain rate sensitivity of yield strength of Al-Si alloy additive-manufactured using laser powder bed fusion, *Scripta Materialia*, Vol. 213, 114635, (2022). (IF: 6, CT: 25)
 34. W. Wang*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, High-temperature strength sustained by nano-sized eutectic structure of Al-Fe alloy manufactured by laser powder bed fusion, *Mater. Sci. Eng. A*, Vol. 838, 142782, (2022). (IF: 6.4, CT: 23)
 35. X. Qi*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Controllable tensile performance of additively manufactured Al-Fe alloy, *Mater. Sci. Eng. A*, Vol. 855, 143893, (2022). (IF: 6.4, CT: 3)
 36. S. M. Yoo, S. E. Shin*, **N. Takata**, M. Kobashi, Aluminum matrix composites reinforced with multi-walled carbon nanotubes and C60 manufactured by laser powder bed fusion, *J. Mater. Sci.*, Vol. 57, (2022). (IF: 4.5, CT: 3)
 37. K. Iwata, A. Suzuki*, S.G. Kim, **N. Takata**, M. Kobashi, Enhancing the solid-state joinability of A5052 and CFRTP via an additively manufactured micro-structure, *Journal of Materials Processing Technology*, Vol. 306, 117629 (2022). (IF: 6.3, CT: 14)
 38. H. Ishii, R. Takagi, **N. Takata***, A. Suzuki, M. Kobashi, Influence of Added Fourth Elements on Precipitation in Heat-Resistant Al-Mg-Zn Ternary Alloys, *Materials Transactions*, Vol. 63 (4), pp. 513-521, (2022). (IF: 1.2, CT: 7)
 39. X. Qi*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Change in microstructural characteristics of laser powder bed fused Al-Fe binary alloy at elevated temperature, *J. Mater. Sci. Tech.*, Vol. 97, pp. 38-53 (2022). (IF: 10.9, CT: 16)
 40. 近藤雅晶*, 鈴木智博, 黎若琪, **高田尚記**, Al-Mg-Zn 3 元系耐熱合金の200°Cにおけるクリープ特性に及ぼす第 4 元素添加の影響, *軽金属* Vol. 72 (8), pp. 473-481, (2022). (IF: -, CT: 0)

41. **高田尚記***, 劉牧霖, 鈴木飛鳥, 小橋眞, 加藤正樹, 岩井駿平, 足立大樹, レーザ粉末床溶融結合法によるAl-12%Si 合金積層造形体の固溶Si 濃度の熱処理に伴う変化, *軽金属*, Vol. 72 (5), pp. 79-87, (2022). (IF: -, CT: 0)
42. 鈴木飛鳥*, 宮坂達也, **高田尚記**, 小橋眞, 加藤正樹, レーザ粉末床溶融結合法によるAl-10%Si-0.4%Mg 合金積層造形体の特異な熱伝導率のイメージベース有限要素解析, *軽金属*, Vol. 72 (5), pp. 164-171, (2022). (IF: -, CT: 1)
43. 加藤正樹, 鈴木飛鳥, Matthew Mcmillan, Xiaoyang Liu, **高田尚記**, 小橋眞, 応力発光体を用いた積層造形Al-12%Si 合金ラティス構造体の圧縮変形挙動の観察, *軽金属*, Vol. 72 (5), pp. 246-250, (2022). (IF: -, CT: 0)
44. 岡野直輝, 相川宗也, **高田尚記***, 鈴木飛鳥, 小橋眞, Al-Mg-Zn 3 元系の共晶反応を利用した Al 基 casting 合金の凝固組織と室温破壊靱性, *軽金属*, Vol. 72 (3), 79-87, (2022). (IF: -, CT: 0)
45. M. Yoshino*, T. Tagawa, H. Li, **N. Takata**, Influence of Stabilizing Elements on Ductile-Brittle Transition Temperature (DBTT) of 18Cr Ferritic Stainless Steels, *ISIJ International*, Vol. 62 (4), 788-798, (2022). (IF: 1.8, CT: 1)
46. A. Suzuki*, Y. Shiba, H. Ibe, **N. Takata**, M. Kobashi, Machine-learning assisted optimization of process parameters for controlling the microstructure in a laser powder bed fused WC/Co cemented carbide, *Additive Manufacturing*, Vol. 59, 103089, (2022). (IF: 11, CT: 25)
47. 鈴木飛鳥*, **高田尚記**, 小橋眞, 加藤正樹, 超硬合金の積層造形とプロセスインフォマティクス, *ふえらむ* Vol.27(12), pp. 862-869, (2022). (IF: -, CT: 1)
48. 鈴木飛鳥*, **高田尚記**, 小橋眞, 加藤正樹, レーザ粉末床溶融結合法による Al-Si 合金のレーザ条件最適化と組織・特性制御, *粉体および粉末冶金*, Vol. 69 (10), pp. 417-425, (2022). (IF: -, CT: 0)
49. 鈴木飛鳥*, **高田尚記**, 小橋眞, 粉末冶金に基づく金属表面でのメゾ構造制御とその金属/樹脂接合への応用, *粉体工学会誌* Vol. 59 (10), pp. 511-517, (2022). (IF: -, CT: 0)
50. **N. Takata***, R. Takagi, R. Li, H. Ishii, A. Suzuki, M. Kobashi, Precipitation morphology and kinetics of T-Al₆Mg₁₁Zn₁₁ intermetallic phase in Al-Mg-Zn ternary alloys, *Intermetallics*, 139 (2021), 107364. (IF: 4.4, CT: 14)
51. R. Li*, **N. Takata***, A. Suzuki, M. Kobashi, Y. Okada, Y. Furukawa, Precipitation Hardening at Elevated Temperatures above 400° C and Subsequent Natural Age Hardening of Commercial Al-Si-Cu Alloy, *Materials* Vol. 14 (23), 7155, (2021). (IF: 3.4, CT: 5)
52. M. Liu, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Enhancement in strength and ductility of laser powder bed fused Al-12Si alloy by introducing nanoscale precipitate, *Additive Manufacturing Letters*, Vol. 1, 100008, (2021). (IF: -, CT: 11)
53. A. Suzuki*, T. Miyasaka, **N. Takata**, M Kobashi, M Kato, Control of microstructural characteristics and mechanical properties of AlSi12 alloy by processing conditions of laser powder bed fusion, *Additive Manufacturing*, Vol. 48, 102383, (2021). (IF: 11, CT: 42)
54. X. Liu*, A. Suzuki, **N. Takata**, M Kobashi, M Kato, Dual plateau stress of C15-type topologically close-packed lattice structures additive-manufactured by laser powder bed fusion, *Scripta Materialia*, Vol. 202, 114003, (2021). (IF: 6, CT: 17)
55. H. Ibe*, Y. Kato, J. Yamada, M. Kato, A. Suzuki, **N. Takata**, M. Kobashi, Controlling WC/Co two-phase microstructure of cemented carbides additive-manufactured by laser powder bed fusion: Effect of powder composition and post heat-treatment, *Materials & Design*, Vol. 210, 110034, (2021). (IF: 8.4, CT: 36)
56. H. Li*, **N. Takata***, M. Kobashi, M. Yoshino, Effect of added stabilizing elements on thermal activation process of plastic deformation in 18Cr ferritic stainless steel, *Mater. Sci. Eng. A*, Vol. 824, 140866, (2021). (IF: 6.4, CT: 7)
57. H. Li*, T. Zhu, **N. Takata***, M. Kobashi, M. Yoshino, Thermal activation process of plastic deformation in Fe-18Cr single-crystal micropillars with high-density dislocations, *Mater. Sci. Eng. A*, Vol. 819, 141459, (2021). (IF: 6.4, CT: 7)
58. 石井大貴, 高木力斗, **高田尚記***, 鈴木飛鳥, 小橋眞, Al-Mg-Zn 3 元系耐熱合金の析出に及ぼす第 4 元素添加の影響, *軽金属*, Vol. 71 (7), 275-282, (2021). (IF: -, CT: 0)
59. S.-G. Kim, A Suzuki*, **N. Takata**, M Kobashi, Control of surface micro-structure for Al alloy/polymer joining fabricated by laser process using Al-Ti-C powders: Effect of powder composition, *Journal of Advanced Joining Processes*, Vol. 4, 100068, (2021). (IF: 4.1, CT: 6)
60. T. Inukai, A. Suzuki*, **N. Takata**, M. Kobashi, Y. Okada, Y. Furukawa, In Situ X-Ray Observations and Microstructural Characterizations for Understanding Combustion Foaming and Reaction Processes to Synthesize Porous Al₃Ti Composites from Al-Ti-B₄C Powders, *Advanced Engineering Materials*, 2001284, (2021). (IF: 4.1, CT: 2)
61. A Suzuki*, K Noritake, **N. Takata**, M Kobashi, Joint strength of Fe/epoxy resin hybrid structure via porous

- Fe/TiB₂ composite layer synthesized by in-situ reaction process, *Journal of Materials Processing Technology*, Vol. 288, 116843, (2021). (IF: 6.3, CT: 6)
62. X. Qi*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Managing both high strength and thermal conductivity of a laser powder bed fused Al–2.5 Fe binary alloy: Effect of annealing on microstructure, *Mater. Sci. Eng. A*, Vol. 805, 140591, (2021). (IF: 6.4, CT: 29)
 63. W. Wang*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Processability and Optimization of Laser Parameters for Densification of Hypereutectic Al–Fe Binary Alloy Manufactured by Laser Powder Bed Fusion, *crystals*, Vol. 11 (3), 320, (2021). (IF: 2.7, CT: 9)
 64. X. Liu*, T. Wada, A. Suzuki, **N. Takata***, M. Kobashi, M. Kato, Understanding and suppressing shear band formation in strut-based lattice structures manufactured by laser powder bed fusion, *Materials & Design*, Vol. 199, 109416, (2021). (IF: 8.4, CT: 67)
 65. Y. Xue*, **N. Takata***, H. Li, M. Kobashi, L. Yuan, Critical resolved shear stress of activated slips measured by micropillar compression tests for single-crystals of Cr-based Laves phases, *Mater. Sci. Eng. A*, Vol. 806, 140861, (2021) (IF: 6.4, CT: 11)
 66. H. Li*, T. Zhu, **N. Takata***, M. Kobashi, M. Yoshino, Effect of trace solute titanium on plastic deformation of α -(Fe, Cr) single-crystal micropillars fabricated from 18Cr ferritic stainless steel, *Mater. Sci. Eng. A*, Vol. 803, 140455, (2021). (IF: 6.4, CT: 12)
 67. A. M. Vilardell*, A. Takezawa, A. du Plessis, **N. Takata***, P. Krakhmalev, M. Kobashi, M. Albu, G. Kothleitner, I. Yadroitsava, I. Yadroitsev, Mechanical behavior of in-situ alloyed Ti6Al4V (ELI)-3 at.% Cu lattice structures manufactured by laser powder bed fusion and designed for implant applications, *Journal of the mechanical behavior of biomedical materials*, Vol. 113, 104130, (2021). (IF: 3.9, CT: 20)
 68. **N. Takata***, M. Liu, H. Kodaira, A. Suzuki, M. Kobashi, Anomalous Strengthening by Supersaturated Solid Solutions of Selectively Laser Melted Al–Si-Based Alloys, *Additive Manufacturing*, Vol. 33, 101152, (2020). (IF: 11, CT: 153)
 69. **N. Takata***, S. Takeyasu, H. Li, A. Suzuki, M. Kobashi, Anomalous size-dependent strength in micropillar compression deformation of commercial-purity aluminum single-crystals, *Mater. Sci. Eng. A*, Vol. 772(20), 138710 (2020). (IF: 6.4, CT: 21)
 70. W. Wang, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Formation of multiple intermetallic phases in a hypereutectic Al–Fe binary alloy additively manufactured by laser powder bed fusion, *Intermetallics* 125, 106892, (2020). (IF: 4.4, CT: 45)
 71. X. Qi*, **N. Takata***, A. Suzuki, M. Kobashi, M. Kato, Laser Powder Bed Fusion of a Near-Eutectic Al–Fe Binary Alloy: Processing and Microstructure, *Additive Manufacturing*, Vol. 38, 101308, (2020). (IF: 11, CT: 56)
 72. M. Liu*, **N. Takata***, A. Suzuki, M. Kobashi, Development of gradient microstructure in the lattice structure of AlSi10Mg alloy fabricated by selective laser melting, *J. Mater. Sci. Tech.*, Vol. 36, pp. 106-117, (2020). (IF: 10.9, CT: 39)
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2. Proceeding paper

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3. Textbooks

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