

RESEARCH ACTIVITIES and ACHIEVEMENTS 2023

Yamasaki-Nishimoto Laboratory
Department of Materials Science and Engineering, Kumamoto University

Journal Paper Publications 欧文学術誌

1. Effect of self-doping of Be into Gd₂O₃ oxide film on incombustibility of Mg-Zn-Gd alloy, S. Inoue, R. Ohmoto, M. Yamasaki, Y. Kawamura, H. Takahashi, Corrosion Science, 225 (2023) Art. No. 111611.
<https://doi.org/10.1016/j.corsci.2023.111611.119029>, Issued on December 2023.
2. Strengthening of α Mg and long-period stacking ordered phases in a Mg-Zn-Y alloy by hot-extrusion with low extrusion ratio, S. Harjo, W. Gong, K. Aizawa, T. Kawasaki, M. Yamasaki, Acta Materialia, 255 (2023) Art. No. 119029.
<https://doi.org/10.1016/j.actamat.2023.119029>, Issued on 15 August 2023.
3. Nanoclusters in stacking faults in Mg-Y-Zn alloys examined by small-angle X-ray scattering and extended X-ray absorption fine structure analysis, H. Okuda, K. Kintsu, S. Kurokawa, M. Tabuchi, H. Nitani, H. Kimiduka, S. Inoue, M. Yamasaki, Y. Kawamura, Acta Materialia, 253 (2023) Art. No. 118963.
<https://doi.org/10.1016/j.actamat.2023.118963>, Issued on 1 July 2023.
4. The microstructure and anisotropic deformation behavior of rapidly solidified ribbon consolidated Mg-Zn-X (X = Y, Gd, Nd) alloys, D. Drozdenko, K. Fekete, P. Dobroň, G. Németh, J. Veselý, S. Nishimoto, M. Yamasaki, Y. Kawamura, Journal of Alloys and Compounds, 944 (2023) Art. No. 169175.
<https://doi.org/10.1016/j.jallcom.2023.169175>, Issued on 25 May 2023.
5. Relationship between Cluster-Arranged Nanoplate Formation and Mechanical Properties of Dilute Mg-Y-Zn Alloys Prepared by Combination of Low-Cooling-Rate Solidification and Extrusion Techniques, S. Ishizaki, M. Yamasaki, K. Hagihara, S. Nishimoto, T. Nakamura, Y. Kawamura, Materials Transactions, 64 (2023) 756-765.
<https://doi.org/10.2320/matertrans.MT-MD2022015>, Issued on April 2023.
6. Effect of Extrusion Ratio in Hot-Extrusion on Kink Deformation during Compressive Deformation in an α Mg/LPSO Dual-Phase Magnesium Alloy Monitored by In Situ Neutron Diffraction, S. Harjo, W. Gong, K. Aizawa, T. Kawasaki, M. Yamasaki, T. Mayama, Y. Kawamura, Materials Transactions, 64 (2023) 766-773.
<https://doi.org/10.2320/matertrans.MT-MD2022004>, Issued on April 2023.
7. Unified Understanding of Strengthening Mechanisms Acting in Mg/LPSO Two-Phase Extruded Alloys with Varying LPSO Phase Volume Fraction, K. Hagihara, T. Tokunaga, K. Yamamoto, M. Yamasaki, T. Mayama, T. Shioyama, Y. Kawamura, T. Nakano, Materials Transactions, 64 (2023) 720-729.
<https://doi.org/10.2320/matertrans.MT-MD2022002>, Issued on April 2023.
8. The yield point phenomenon in ultrafine-grained dilute Mg-Zn-Y alloys, D. Drozdenko, K. Fekete, P. Dobron, M. Knappek, K. Mathis, P. Minarik, M. Yamasaki, Y. Kawamura, Materials Letters, 330 (2023) Art. No.133315.
<https://doi.org/10.1016/j.matlet.2022.133315>, Issued on 1 January 2023.

Journal Paper Publications 和文学術誌

1. Cu-Ni-Co-Si 合金圧延材の曲げ変形時のせん断帯形成挙動, 迫 仁郁, 山崎倫昭, 眞山 剛, 伊東剛史, 兵藤 宏, 銅と銅合金, 62 (2023) 42-46.

[https://doi.org/ https://doi.org/10.34562/jic.62.1_42](https://doi.org/https://doi.org/10.34562/jic.62.1_42), Issued on 1 August 2023.

Awards 受賞

1. 日本金属学会第40回優秀ポスター賞, "表面電位測定と第一原理計算の連携による α -Mg/LPSO二相Mg系合金における相間電位差の制御", 小林拓海, 圓谷貴夫, 山崎倫昭, 日本金属学会2023年第172回春期講演大会, 東京大学駒場キャンパス, 2023年3月7-10日