

RESEARCH ACTIVITIES and ACHIEVEMENTS

Prof. Dr. Michiaki Yamasaki

as of 31st March, 2022

Journal Paper Publications

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135. α -Mg/LPSO (Long-Period Stacking Ordered) phase interfaces as obstacles against dislocation slip in as-cast Mg-Zn-Y alloys, T. Mayama, S.R. Agnew, K. Hagihara, K. Kamura, K. Shiraishi, M. Yamasaki, Y. Kawamura, International Journal of Plasticity, 154 (2022) Art. No. 103294.
<https://doi.org/10.1016/j.ijplas.2022.103294>, Issued on 30 March 2022.
134. Influence of crystallographic orientation and Al alloying on the corrosion behaviour of extruded α -Mg/LPSO two-phase Mg-Zn-Y alloys with multimodal microstructure, M. Yamasaki, Z. Shi, A. Atrens, A. Furukawa, Y. Kawamura, Corrosion Science 200 (2022) Art. No. 110237.
<https://doi.org/10.1016/j.corsci.2022.110237>, Issued on 14th March 2022.
133. Effect of hierarchical multimodal microstructure evolution on tensile properties and fracture toughness of rapidly solidified Mg-Zn-Y-Al alloys with LPSO phase, S. Nishimoto, Y. Koguchi, M. Yamasaki, Y. Kawamura, Materials Science and Engineering A, 832 (2022) Art. No. 142348.
<https://doi.org/10.1016/j.msea.2021.142348>, Issued on 29th November 2021.
132. Thermal stability of the microstructure of rapidly solidified ribbon-consolidated Mg_{97.94}Zn_{0.56}Y_{1.5} alloy, K. Fekete, D. Drozdenko, P. Cejpek, P. Dobroň, J. Veselý, M. Yamasaki, Y. Kawamura, Materials Characterization, 183 (2022) Art. No. 111618.
<https://doi.org/10.1016/j.matchar.2021.111618>, Issued on 16th December 2021.
131. Short-range order clusters in the long-period stacking/order phases with an intrinsic-I type stacking fault in Mg-Co-Y alloys, K. Guan, M. Egami, D. Egusa, H. Kimizuka, M. Yamasaki, Y. Kawamura, E. Abe, Scripta Materialia, 207, (2022) Art. No.114282.
<https://doi.org/10.1016/j.scriptamat.2021.114282>, Issued on 21st September 2021.

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130. Revealing the microstructural aspects of the corrosion dynamics in rapidly solidified Mg-Zn-Y alloys using the acoustic emission technique, D. Drozdenko, M. Yamasaki, K. Máthys, P. Dobroň, S. -I. Inoue, Y. Kawamura, Materials, 14 (2021) Art. No. 7828.
<https://doi.org/10.3390/ma14247828>, Issued on 24th December 2021.
129. Quantitative estimation of kink-band strengthening in an Mg-Zn-Y single crystal with LPSO nanoplates, K. Hagihara, R. Ueyama, T. Tokunaga, M. Yamasaki, Y. Kawamura, T. Nakano, Materials Research Letters, 9 (2021) 467-474.
<https://doi.org/10.1080/21663831.2021.1974593>, Issued on 12th September 2021.
128. Dynamically recrystallized structure and mechanical properties of Mg₉₆Zn₂Y₂ alloys deformed by ECAP, H. Kitahara, M. Yamasaki, Y. Nakayama, M. Tsushida, S. Ando, Y. Kawamura, Materials Transactions, 62 (2021) 1304-1310.
<https://doi.org/10.2320/matertrans.L-M2021840>, Issued on 1st September 2021.
127. Intrinsic kink bands strengthening induced by several wrought-processes in Mg-Y-Zn alloys containing LPSO phase, H. Somekawa, D. Ando, K. Hagihara, M. Yamasaki, Y. Kawamura, Materials Characterization, 179

- (2021) Art. No. 111348.
<https://doi.org/10.1016/j.matchar.2021.111348>, Issued on 23rd July 2021.
126. Formation of <0001>-rotation-type kink boundary in Mg–Zn–Y alloy with long-period stacking ordered structure, M. Yamasaki, T. Mayama, T. Matsumoto, K. Hagihara, D. Drozdenko, Y. Kawamura, *Materials Science and Engineering A*, 819 (2021) Art. No. 141466.
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125. Formation process of long-period stacking-ordered structures in Mg₉₇Zn₁Y₂ alloy comprising hcp and cubic phases fabricated by high-pressure high-temperature annealing, A. Yokota, M. Matsushita, N. Geshi, D. Yamasaki, T. Shinmei, M. Yamasaki, Y. Kawamura, *Metals*, 11 (2021) Art. No. 1031.
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124. Wrought-procedure memory in caliber rolled Mg–Y–Zn alloy containing LPSO phase, H. Somekawa, M. Yamasaki, Y. Kawamura, T. Inoue, *Materials Characterization*, 175 (2021) Art. No. 111080.
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123. Surprising increase in yield stress of Mg single crystal using long-period stacking ordered nanoplates, H. Hagihara, R. Ueyama, M. Yamasaki, Y. Kawamura, T. Nakano, *Acta Materialia*, 209 (2021) Art. No. 116797.
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121. Texture evolution and fracture behavior of friction-stir-welded non-flammable Mg–Al–Ca alloy extrusions, S. -I. Inoue*, M. Yamasaki, M. Ohata, S. Kakiuchi, Y. Kawamura, H. Terasaki, *Materials Science & Engineering A*, 799 (2021) Art. No. 140090.
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119. Hot compression deformation behavior of Mg–Y–Zn alloys containing LPSO phase, H. Somekawa*, Y. Nakasuji, M. Yuasa, H. Miyamoto, M. Yamasaki, Y. Kawamura, *Materials Science and Engineering A*, 792 (2020) Art. No. 139777.
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118. Microstructure and mechanical properties of low-temperature wrought-processed Mg–Y–Zn alloy containing LPSO phase, H. Somekawa*, D. Ando, M. Yamasaki, Y. Kawamura, *Materialia*, 12 (2020), Art. No. 100786.
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96. Phonon excitations in a single crystal $Mg_{85}Zn_6Y_9$ with a synchronized long-period stacking ordered phase, S. Hosokawa*, K. Kimura, J.R. Stellhorn, K. Yoshida, K. Hagihara, H. Izuno, M. Yamasaki, Y. Kawamura, Y. Mine, K. Takashima, H. Uchiyama, S. Tsutsui, A. Koura, F. Shimojo, *Acta Materialia*, 146 (2018) 273-279. IF: 6.036 (2017)
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3. 第3章 第3節 極限環境下物質合成によるシンクロ型LPSO構造物質群の拡大
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2. 第8章 マグネシウムの腐食
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