# Uan Jun-Yen

## List of Publications by Citations



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| 58 papers | 1,256 citations | 21 h-index | 33 g-index |
| 58 ext. papers | 1,425 ext. citations | 4.6 avg, IF | 4.65 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 58 | Formation of Mg,Al-hydrotalcite conversion coating on Mg alloy in aqueous HCO3−/CO32− and corresponding protection against corrosion by the coating. *Corrosion Science*, **2009**, 51, 1181-1188 | 6.8 | 107 |
| 57 | Generation of hydrogen from magnesium alloy scraps catalyzed by platinum-coated titanium net in NaCl aqueous solution. *International Journal of Hydrogen Energy*, **2007**, 32, 2337-2343 | 6.7 | 77 |
| 56 | Electrochemical behaviour and corrosion performance of Mg–Li–Al–Zn anodes with high Al composition. *Corrosion Science*, **2009**, 51, 2463-2472 | 6.8 | 71 |
| 55 | Evolution of hydrogen from magnesium alloy scraps in citric acid-added seawater without catalyst. *International Journal of Hydrogen Energy*, **2009**, 34, 6137-6142 | 6.7 | 56 |
| 54 | Optically transparent Li–Al–CO3 layered double hydroxide thin films on an AZ31 Mg alloy formed by electrochemical deposition and their corrosion resistance in a dilute chloride environment. *Corrosion Science*, **2013**, 68, 238-248 | 6.8 | 54 |
| 53 | Direct growth of oriented Mg–Fe layered double hydroxide (LDH) on pure Mg substrates and in vitro corrosion and cell adhesion testing of LDH-coated Mg samples. *Journal of Materials Chemistry*, **2011**, 21, 5011 | | 53 |
| 52 | Alloying modification of Sn–Ag–Cu solders by manganese and titanium. *Microelectronics Reliability*, **2009**, 49, 235-241 | 1.2 | 53 |
| 51 | Direct growth of oriented Mg–Al layered double hydroxide film on Mg alloy in aqueous HCO3−/CO32− solution. *Journal of Materials Chemistry*, **2010**, 20, 761-766 | | 50 |
| 50 | Crystallization of a chemical conversion layer that forms on AZ91D magnesium alloy in carbonic acid. *Corrosion Science*, **2011**, 53, 3832-3839 | 6.8 | 49 |
| 49 | Sacrificial Mg film anode for cathodic protection of die cast Mg–9 wt.%Al–1 wt.%Zn alloy in NaCl aqueous solution. *Scripta Materialia*, **2006**, 54, 1253-1257 | 5.6 | 46 |
| 48 | Effects of concentrations of NaCl and organic acid on generation of hydrogen from magnesium metal scrap. *International Journal of Hydrogen Energy*, **2012**, 37, 3033-3040 | 6.7 | 41 |
| 47 | Producing hydrogen in an aqueous NaCl solution by the hydrolysis of metallic couples of low-grade magnesium scrap and noble metal net. *International Journal of Hydrogen Energy*, **2009**, 34, 1677-1687 | 6.7 | 40 |
| 46 | Rapid direct growth of Li–Al layered double hydroxide (LDH) film on glass, silicon wafer and carbon cloth and characterization of LDH film on substrates. *Journal of Materials Chemistry*, **2011**, 21, 1880-1889 | | 38 |
| 45 | Evaluation of a New Hydrogen Generating System: Ni-Rich Magnesium Alloy Catalyzed by Platinum Wire in Sodium Chloride Solution. *Materials Transactions*, **2005**, 46, 2704-2708 | 1.3 | 33 |
| 44 | Applications of carbonic acid solution for developing conversion coatings on Mg alloy. *Transactions of Nonferrous Metals Society of China*, **2010**, 20, 1331-1339 | 3.3 | 32 |
| 43 | Mechanical characterization of friction stir spot microwelds. *Journal of Materials Processing Technology*, **2010**, 210, 1942-1948 | 5.3 | 27 |
| 42 | Enhancement of corrosion resistance of Mg-9 wt.% Al-1 wt.% Zn alloy by a calcite (CaCO3) conversion hard coating. *Corrosion Science*, **2010**, 52, 1874-1878 | 6.8 | 25 |

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| 41 | Synthesis of Li–Al-carbonate layered double hydroxide in a metal salt-free system. *Journal of Materials Chemistry*, **2010**, 20, 6524 | | 25 |
| 40 | Converting hcp Mg–Al–Zn alloy into bcc Mg–Li–Al–Zn alloy by electrolytic deposition and diffusion of reduced lithium atoms in a molten salt electrolyte LiCl–KCl. *Scripta Materialia*, **2007**, 56, 597-600 | 5.6 | 25 |
| 39 | Mg-Mg2X (X=Cu, Sn) eutectic alloy for the Mg2X nano-lamellar compounds to catalyze hydrolysis reaction for H2 generation and the recycling of pure X metals from the reaction wastes. *Journal of Alloys and Compounds*, **2019**, 772, 489-498 | 5.7 | 24 |
| 38 | Surface compositional inhomogeneity and subsurface microstructures in a thin-walled AZ91D plate formed by hot-chamber die casting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 402, 193-202 | 5.3 | 22 |
| 37 | Surface coatings for improving the corrosion resistance and cell adhesion of AZ91D magnesium alloy through environmentally clean methods. *Thin Solid Films*, **2010**, 518, 7563-7567 | 2.2 | 21 |
| 36 | Correlating the microstructure of the die-chill skin and the corrosion properties for a hot-chamber die-cast AZ91D magnesium alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 2245-2252 | 2.3 | 21 |
| 35 | A nonrational B-spline profiled horn with high displacement amplification for ultrasonic welding. *Ultrasonics*, **2014**, 54, 2063-71 | 3.5 | 20 |
| 34 | Surface modification of 5083 Al alloy by electrical discharge alloying processing with a 75mass% Si–Fe alloy electrode. *Applied Surface Science*, **2012**, 258, 4483-4488 | 6.7 | 20 |
| 33 | Morphological and Microstructural Characterization of the Aragonitic CaCO3/Mg,Al-Hydrotalcite Coating on Mg-9 Wt Pct Al-1 Wt Pct Zn Alloy to Protect against Corrosion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 3233-3245 | 2.3 | 18 |
| 32 | Precipitate evolution in underaged Al–Mg–Si alloy during thermal cycling between 25 °C and 65 °C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2006**, 419, 98-104 | 5.3 | 16 |
| 31 | Synthesis, microstructure, and photocatalysis of In2O3 hollow particles. *Ceramics International*, **2011**, 37, 1775-1780 | 5.1 | 14 |
| 30 | Production of an Mg/Mg2Ni lamellar composite for generating H2 and the recycling of the post-H2 generation residue to nickel powder. *International Journal of Hydrogen Energy*, **2013**, 38, 13520-13528 | 6.7 | 13 |
| 29 | Aqueous Li+/Al3+ alkaline solution for CO2 capture and the massive Li–Al–CO3 hydrotalcite precipitation during the interaction between CO2 gas and the Li+/Al3+ aqueous solution. *Journal of Materials Chemistry A*, **2013**, 1, 14773 | 13 | 12 |
| 28 | Gallium-induced magnesium enrichment on grain boundary and the gallium effect on degradation of tensile properties of aluminum alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 2133-2145 | 2.3 | 12 |
| 27 | Synthesis of Mg-Fe-Cl hydrotalcite-like nanoplatelets as an oral phosphate binder: evaluations of phosphorus intercalation activity and cellular cytotoxicity. *Scientific Reports*, **2016**, 6, 32458 | 4.9 | 11 |
| 26 | Controllable luminescence of a Li–Al layered double hydroxide used as a sensor for reversible sensing of carbonate. *Journal of Materials Chemistry C*, **2019**, 7, 11191-11206 | 7.1 | 10 |
| 25 | Fabrication of AlLi and Al2Li3/Al4Li9 intermetallic compounds by molten salt electrolysis and their application for hydrogen generation from water. *International Journal of Hydrogen Energy*, **2012**, 37, 13731-13736 | 6.7 | 9 |
| 24 | Effect of annealing temperature on the microstructure and mechanical properties of an as-rolled Mg-9wt.%Li-3wt.%Al-1wt.%Zn alloy sheet. *Frontiers of Materials Science*, **2014**, 8, 271-280 | 2.5 | 8 |

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| 23 | Characterization and Improvement in the Corrosion Performance of a Hot-Chamber Diecast Mg Alloy Thin Plate by the Removal of Interdendritic Phases at the Die Chill Layer. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 703-715 | 2.3 | 8 |
| 22 | Preparation of a novel Pd/layered double hydroxide composite membrane for hydrogen filtration and characterization by thermal cycling. *International Journal of Hydrogen Energy*, **2013**, 38, 13734-13741 | 6.7 | 7 |
| 21 | Tensile strength and deformation microstructure of Al–Mg–Si alloy sheet by through-width vibration rolling process. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 551, 296-300 | 5.3 | 7 |
| 20 | Investigation of the photo-catalytic coating on AZ91 alloy. *Journal of Alloys and Compounds*, **2009**, 467, 257-260 | 5.7 | 7 |
| 19 | Formation and characterization of self-lubricated carbide layer on AA6082 Al–Mg–Si aluminum alloy by electrical discharge alloying process. *Transactions of Nonferrous Metals Society of China*, **2016**, 26, 3205-3218 | 3.3 | 7 |
| 18 | Microstructural and Corrosion Characteristics of Alloying Modified Layer on 5083 Al Alloy by Electrical Discharge Alloying Process with Pure Silicon Electrode. *Materials Transactions*, **2012**, 53, 1436-1442 | 1.3 | 6 |
| 17 | Ductile-to-brittle transition for the aluminum alloy contacting to liquid gallium metal. *Journal of Alloys and Compounds*, **2008**, 464, 146-149 | 5.7 | 6 |
| 16 | Characterization of Gallium-induced Intergranular Fracture Surface and the Auger Electron Spectroscopic Analysis for Mg Grain Boundary Segregation in AA6061 T4 Al-Mg-Si Alloy. *Materials Transactions*, **2004**, 45, 1925-1932 | 1.3 | 6 |
| 15 | Preparation of Mg–Li–Al–Zn Master Alloy in Air by Electrolytic Diffusing Method. *Materials Transactions*, **2005**, 46, 1354-1359 | 1.3 | 6 |
| 14 | Converting waste magnesium scrap into anion-sorptionable nanomaterials: synthesis and characterization of an Mg–Al–Cl hydrotalcite-like compound by hydrolysis and chemical conversion treatment in aqueous chloride solutions. *RSC Advances*, **2014**, 4, 57646-57657 | 3.7 | 5 |
| 13 | Refractory filler sands with core–shell composite structure for the taphole nozzle in slide-gate system of steel ladles. *Ceramics International*, **2012**, 38, 967-971 | 5.1 | 5 |
| 12 | Microstructural and Corrosion Characteristics of Iron-Silicon Alloyed Layer on 5083 Al Alloy by Electrical Discharge Alloying Processing. *Materials Transactions*, **2011**, 52, 514-520 | 1.3 | 5 |
| 11 | Solution-processed Li-Al layered-double-hydroxide platelet structures for high efficiency InGaN light emitting diodes. *Optics Express*, **2012**, 20 Suppl 5, A669-77 | 3.3 | 5 |
| 10 | An insight into the vibration-assisted rolling of AA5052 aluminum alloy: Tensile strength, deformation microstructure, and texture evolution. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 803, 140489 | 5.3 | 5 |
| 9 | Shear Bonding Strength and Thermal Cycling Effect of Fluoride Releasable/Rechargeable Orthodontic Adhesive Resins Containing LiAl-F Layered Double Hydroxide (LDH) Filler. *Materials*, **2019**, 12, | 3.5 | 4 |
| 8 | Preparation of bcc Mg-Li-Al-Zn Alloy by Electrolysis in Molten Salt LiCl-KCl and the Alloy's Electrochemical Performance as Anode Material for Magnesium Batteries. *Electrochemistry*, **2009**, 77, 604-607 | 1.2 | 3 |
| 7 | Effect of Cooling Rate on Mg17Al12 Volume Fraction and Compositional Inhomogeneity in a Sand-Cast AZ91D Magnesium Plate. *Materials Transactions*, **2006**, 47, 2060-2067 | 1.3 | 3 |
| 6 | MgAl phase in magnesium alloy waste facilitating the Ni reduction in nickel plating wastewater. *Journal of Hazardous Materials*, **2021**, 403, 123556 | 12.8 | 3 |

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| 5 | Uniform Equiaxed Grain Structure throughout Thickness of a Hot-Rolled 5083 Al-Mg-Mn Alloy Thick Plate after a Tempering Treatment at 350°C. *Materials Transactions*, **2007**, 48, 178-183 | 1.3 | 2 |
| 4 | Deposition of Li/Al layered double hydroxides on the graphite felts for the performance improvement of an all-vanadium redox flow battery. *Materials Today Communications*, **2021**, 27, 102280 | 2.5 | 1 |
| 3 | Ultrasonic spot welds of gas diffusion layer to proton exchange membrane of fuel cells. *Journal of Materials Processing Technology*, **2019**, 266, 208-216 | 5.3 | 1 |
| 2 | Synthesis of Catalytic Ni/Cu Nanoparticles from Simulated Wastewater on Li□Al Mixed Metal Oxides for a Two-Stage Catalytic Process in Ethanol Steam Reforming: Catalytic Performance and Coke Properties. *Catalysts*, **2021**, 11, 1124 | 4 | 1 |
| 1 | Electrodeposition of a Li-Al Layered Double Hydroxide (LDH) on a Ball-like Aluminum Lathe Waste Strips in Structured Catalytic Applications: Preparation and Characterization of Ni-Based LDH Catalysts for Hydrogen Evolution. *Catalysts*, **2022**, 12, 520 | 4 | 0 |