

## **RESUME**

- 1- Name Surname: İshak KARAKAYA
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## **EDUCATION**

- 1- Ph.D. McGill University, Canada (1985)
- 2- M.Eng. McGill University, Canada
- 3- B.S. Middle East Technical University, Turkey

## **RESEARCH INTERESTS**

- 1- Thermochemistry of Molten Oxide, Salt and Alloy Systems
- 2- Electrometallurgy of Light Metals
- 3- High Temperature Corrosion of Alloys
- 4- Computer Modelling of Phase Diagrams

## **PUBLICATIONS**

- 1- Aksu R., Uguz R. O., Erdogan M., Meco H., Karakaya I., Investigation, modeling and design of a cathodic protection system for hull structures in marine environment, Meeting Abstracts, 972, 2016
- 2- Aksu Y., Erdogan M., Demirci G., Karakaya I., Electropolishing of an Fe-Ni-Co alloy in acetic acid-perchloric acid mixture, Meeting Abstracts, 1131, 2016.
- 3- Akpınar B., Ergul E., Erdogan M., Karakaya I., In search of an alternative solar grade silicon production by electrochemical reduction of SiO<sub>2</sub>, Meeting Abstracts, 2164, 2016.
- 4- Karakaya I., Ulu F., Demirci G., Erdogan M., The role of electrolyte composition on codeposited Ag and Cu, Meeting Abstracts, 1126, 2016.
- 5- Karakaya I., Erdogan M., Akpınar B., A pulse voltage application in electrochemical reduction of solid CaWO<sub>4</sub> Powder, Meeting Abstracts, 2080, 2016
- 6- Arslan B., Demirci G., Karakaya I., Erdogan M., Formation of gold-plated electroformed copper structures, Advances in Materials and Processing Technologies 1, 3-4, 384-393, 2015
- 7- Dincer O., Pehlivanoglu M. K., Caliskan N. K., Karakaya I., Kalkanli A., Processing and microstructural characterization of liquid phase sintered tungsten-nickel-cobalt heavy alloys, International Journal of Refractory Metals and Hard Materials, 50, 106-112, 2015
- 8- Cetin Y., Karakaya I., Demirci G., Erdogan M., Aras M. S., Preparation of surfaces

of germanium and kovar substrates by electroplating for soldering., Meeting Abstracts, 1179, 2015

- 9- Karakaya I., Ulu F., Demirci G., Erdogan M., Effect of bath composition on the composition and morphology of electrodeposited Ag-Cu alloys, Meeting Abstracts, 1227, 2015
- 10-Arslan B., Karakaya I., Erdogan M., Aras M. S., Demirci G., Structural properties of electrolytic nickel deposits produced by direct, pulse and pulse reverse currents in the organic-free watts electrolytes, Meeting Abstracts, 1200, 2015
- 11-Erden F., Karakaya I., Demirci G., On the preparation of Mg<sub>2</sub>Ni by combining electrodeoxidation and electrolysis techniques, Int. J. Electrochem, 9, 6627-6639, 2014
- 12-Dundar Y., Demirci G., Erdogan M., Karakaya I., Electropolishing of kovar alloy for vacuum applications, ECS Transactions 61 (21), 1-8, 2014
- 13-Cetin Y., Karakaya I., Demirci G., Erdogan M., Aras, M. S., Metallization of germanium by electroplating prior to soldering. Meeting Abstracts, 586, 2014
- 14-Bolukoglu Z., Karakaya I., Erdogan M., Formation of titanium dioxide nanotube arrays by anodizing Ti6Al4V alloy, ECS Transactions 58 (43), 45-52, 2014
- 15-Ulu F., Karakaya I., Demirci G., Erdogan M., Electrochemical formation of brazing alloys on metal substrates, ECS Transactions. 58 (32), 61-69, 2014
- 16-Arslan B., Ulgudur N., Erdogan M., Imamoglu I., Karakaya I., Comparison of structural properties of copper deposits from sulfate and pyrophosphate electrolytes, ECS Transactions, 58 (32), 105-113, 2014
- 17-Saraloğlu Güler E., Karakaya İ., Konca E., Effects of current density, coating thickness, temperature, pH and particle concentration on internal stress during Ni-MoS<sub>2</sub> electrocodeposition, Surface Engineering, 30 (2): 109-114 February 2014.
- 18-Dündar Y, Demirci G, Erdoğan M, Karakaya İ, Electropolishing of Kovar Alloy for Vacuum Applications, ECS Transactions, 61 (21) 1-8 2014.
- 19-Erden F, Karakaya İ, Erdoğan M, On the Preparation of Mg<sub>2</sub>Ni by Combining Electrodeoxidation and Electrolysis Techniques, Int. J. Electrochem. Sci., 9 6627-6639 2014.
- 20-F. Ulu, İ. Karakaya, G. Demirci and M. Erdoğan, Electrochemical Formation of Brazing Alloys On Metal Substrates, ECS Trans. 58(32): 61-69 2014.
- 21- Arslan B, Ülgüdür N, Erdoğan M, İmamoğlu İ, Karakaya İ, Comparison of Structural Properties of Copper Deposits from Sulfate and Pyrophosphate Electrolytes, ECS Trans. 58(32): 105-113 2014.

- 22- Bölükoğlu Z.A, Karakaya İ, Erdoğan M, Formation of Titanium Dioxide Nanotube Arrays by Anodizing Ti6Al4V Alloy, ECS Transactions, 58 (43) 45-52 2014.
- 23- Saraloğlu Güler E, Konca E, Karakaya İ, Effect of Electrodeposition Parameters on the Current Density of Hydrogen Evolution Reaction in Ni and Ni-MoS<sub>2</sub> Composite Coatings, Int. J. Electrochem. Sci., 8 5496–5505 2013.
- 24- Erdoğan M, Karakaya İ, On the Electrochemical Reduction Mechanism of CaWO<sub>4</sub> to W Powder, Metallurgical and Materials Transactions B, 43B (2012) 667-670.
- 25- Sultan A, Karakaya İ, Erdoğan M, Influence of Water Vapor on High Temperature Oxidation of Steels Used in Petroleum Refinery Heaters, "Materials and Corrosion", 63 (2): 119–126 2012.
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- 29- Ors T, Tan S, Ozturk T, et al. Synthesis of Fe-4.6 wt% B alloy via electro-deoxidation of mixed oxides JOURNAL OF MATERIALS SCIENCE Volume: 44 Issue: 13 Pages: 3514-3519 Published: JUL 2009
- 30- Tan S, Oers T, Aydınol MK, et al. Synthesis of FeTi from mixed oxide precursors JOURNAL OF ALLOYS AND COMPOUNDS Volume: 475 Issue: 1-2 Pages: 368-372 Published: MAY 5 2009
- 31- Demirci G, Karakaya I, "Electrolytic magnesium production and its hydrodynamics by using an Mg-Pb alloy cathode", JOURNAL OF ALLOYS AND COMPOUNDS Volume: 465 Issue: 1-2 Pages:255-260 Published: OCT 6 2008
- 32- Kul M, Topkaya Y, Karakaya I, "Rare earth double sulfates from pre- concentrated bastnasite", HYDROMETALLURGY Volume: 93 Issue: 3-4 Pages: 129-135 Published: AUG 2008
- 33- Demirci G, Karakaya I, "Collection of magnesium in an Mg-Pb alloy cathode placed at the bottom of the cell in MgCl<sub>2</sub> electrolysis", JOURNAL OF ALLOYS AND COMPOUNDS Volume: 439 Issue: 1-2 Pages: 237-242 Published: JUL 31 2007
- 34- Okuyucu H, Hasçıçek Y, Karakaya İ, Yb-123 Superconducting film coating on Gd<sub>2</sub>O<sub>3</sub> Buffered nickel substrate by sol-gel method. "Key Engineering Materials", 264-268, (2004), p.1209-1212.
- 35- Guden M, Karakaya I, "Electrolysis of MgCl<sub>2</sub> With a Top Inserted Anode and an Mg

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