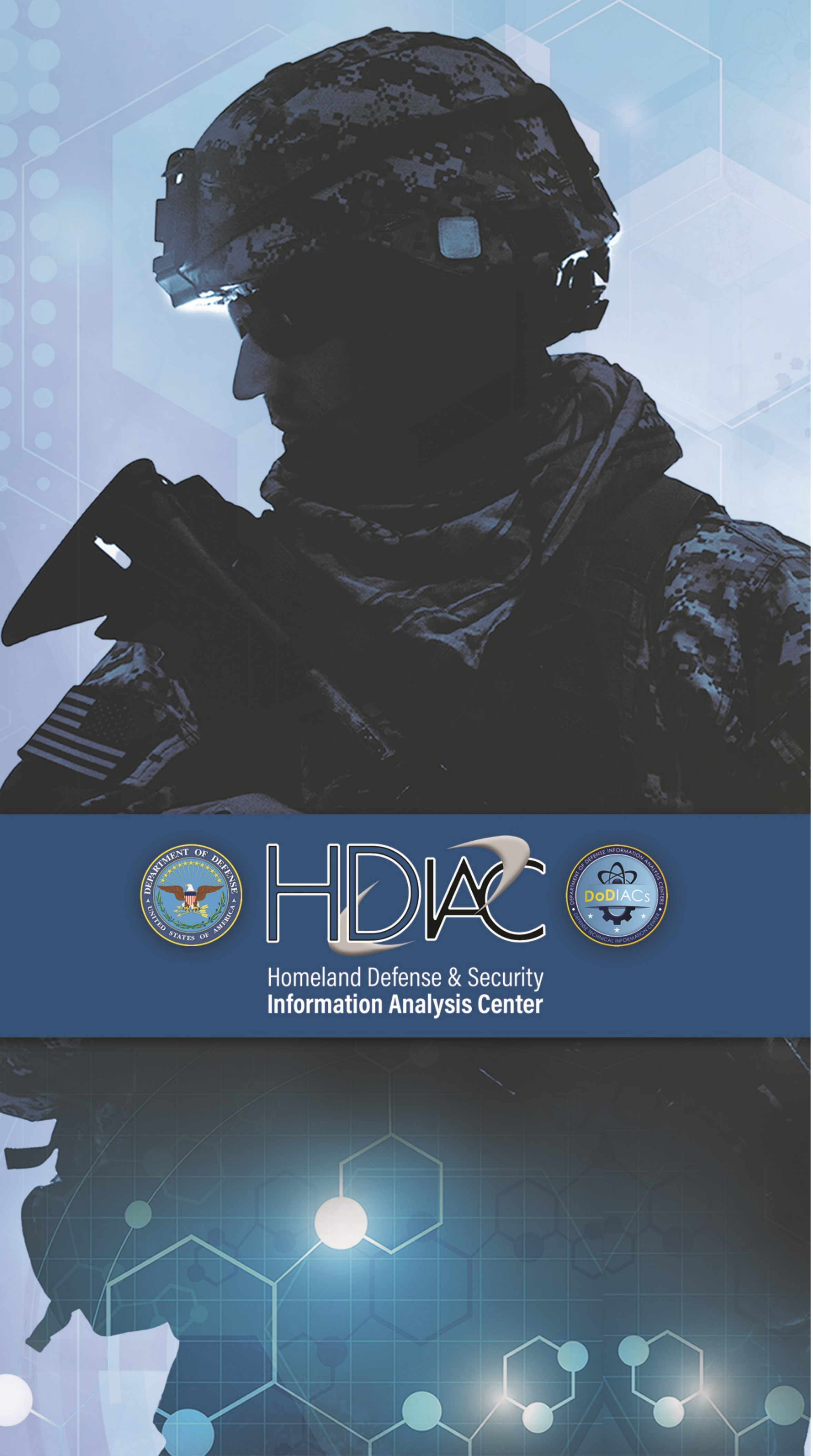

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Overview

A representative of the Y-12 National Security Complex requested information concerning U.S.-based individuals performing research on lithium chloride (LiCl) molten salt.

Findings

HDIAC identified 12 active LiCl molten salt researchers, listed in Table 1.

Individual & Email	Organization	Selected Works
Devin Rappleye rappleye1@llnl.gov	Lawrence Livermore National Laboratory	• Methods for Determining the Working Electrode Interfacial Area for Electroanalytical Measurements of Metal Ions in Molten LiCl-KCl [1]
Guy Fredrickson Guy.Fredrickson@INL.gov	Idaho National Laboratory	• Electrochemistry of Iodide in LiCl-KCl Molten Salts and Anionic Chemla Effect: An Overview [2] • Experimental Study of Codeposition Electrochemistry Using Mixtures of ScCl3 and YCl3 in LiCl-KCl Eutectic Salt at 500° C [3]
Judith Gomez-Vidal Judith.gomex@nrel.gov	National Renewable Energy Laboratory	• Corrosion of alloys in a chloride molten salt (NaCl–LiCl) for solar thermal technologies [4] • Corrosion resistance of MCrAlX coatings in a molten chloride for thermal storage in concentrating solar power applications [5] • Castable cements to prevent corrosion of metals in molten salts [6]
Di-Jia Liu Email not available	Argonne National Laboratory	• Lithium Assisted "Dissolution - Alloying" Synthesis of Nanoalloys from Individual Bulk Metals [7]
Sam Bryan sam.bryan@pnnl.gov	Pacific Northwest National Laboratory	• Spectroelectrochemistry of EuCl3 in Four Molten Salt Eutectics; 3 LiCl−NaCl, 3 LiCl−2 KCl, LiCl−RbCl, and 3 LiCl−2 CsCl; at 873 K [8]
Dev Chidambaram dcc@unr.edu	University of Nevada, Reno	• Long-Term Corrosion Testing of Inconel Alloy 625 in Molten LiCl-Li2O-Li [9] • Characterization of the Electrochemical Behavior of a Li-Bi Reference Electrode for the Molten LiCl-Li [10] • Electrochemical Behavior of Samarium in Molten LiCl-KCl [11] • On the Formation of Clusters of Li8 in Molten Solutions of LiCl-Li [12]
Michael Forrest Simpson Michael.Simpson@Utah.edu	University of Utah	• Optimization of UCl3and MgCl2 separation from molten LiCl-KCl eutectic salt via galvanic drawdown with sacrificial Gd anode [13] • Potentiometric Measurement of Activity of Rare Earth Chlorides (La, Gd, Ce, Nd) in LiCl-KCl Eutectic Salt [14] • Electrochemical monitoring of Ni corrosion induced by water in eutectic LiCl-KCl [15] • Galvanic reduction of uranium(III) chloride from LiCl-KCl eutectic salt using gadolinium metal [16] • Thin-layer electrodeposition of uranium metal from molten LiCl-KCl [17] • Methods for Determining the Working Electrode Interfacial Area for Electroanalytical Measurements of Metal Ions in Molten LiCl-KCl [18]
Candace Chan candace.chan@asu.edu	Arizona State University	• Synthesis of Fine Cubic Li7La3Zr2O12 Powders in Molten LiCl–KCl Eutectic and Facile Densification by Reversal of Li^+/H^+ Exchange [19]

Yi Cui yicui@stanford.edu	Stanford University	• An intermediate temperature garnet-type solid electrolyte-based molten lithium battery for grid energy storage [20] • Robust Pinhole-free Li3N Solid Electrolyte Grown from Molten Lithium [21]
A.J. Burak adam.burak@utah.edu	University of Utah	• Electrochemical Measurement of Li2O in Molten LiCl Salt [22]
Vincent Giordani Email not available	Liox Power	• A Molten Salt Lithium-Oxygen Battery [23] • Intermediate Temperature Molten Salt Lithium Batteries, New Chemistries and Beyond [24]
Milan Stika milan.stika@flibe-energy.com	Flibe Energy (previously University of Utah)	• Thin-Layer Electrodeposition of Thorium and Uranium from Molten LiCl-KCl [18]

Table 1: LiCl Researchers.

Conclusion

HDIAC identified over a dozen researchers with expertise in molten LiCl salt across national laboratories, academic institutions, and industry. Although U.S. citizenship verification falls outside the scope of the free, four-hour HDIAC Technical Inquiry service, HDIAC researchers verified the identified researchers have active affiliations with U.S-based organizations.

We request your feedback on this Inquiry: https://www.hdiac.org/inquiry_assessment_form

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