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Paper Title: Thermal and Oxidative Behavior of Carbonate Based Electrolytes with Cathode Materials for fire safety of Lithium-Ion Batteries

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Ghulam Abbas Gohar is working as a Postdoctoral fellow in the Department of Mechanical Engineering at KFUPM, Saudi Arabia. He has completed his Ph.D. in Mechanical Engineering at The Hong Kong Polytechnic University, Hong Kong with CGPA of 4.27/4.30. He earned his M.Phil degree in Mechanical Engineering from Department of Mechanical Engineering, the University of Engineering & Technology Lahore, Pakistan and his BSc in Mechanical Engineering from Bahauddin Zakariya University Multan, graduating with distinction (CGPA 3.84/4.0). His research focuses on **chemical kinetics of lithium batteries, solid state batteries, renewable energy systems, radiative cooling, and air water harvesting**. Dr. Gohar previously served as a Lecturer in Department of Mechanical Engineering COMSATS University Islamabad, Pakistan (2012-2020). He taught undergraduate courses such as Thermodynamics, Heat and mass transfer, Combustion Science. Engineering Fluid Mechanics etc in COMSATS University Islamabad and supervised Final year project. He has published 22 research articles in the field of advanced materials, and batteries and has reviewed several publications in international Journal. He has also submitted **U.S. patent applications** on sorption and condensation for water harvesting technologies and has signed a **book agreement** with Elsevier for **"Advancement in thermal engineering and chemistry for lithium batteries: challenges, innovations and practical applications"**. His ongoing projects include designing sustainable atmospheric water harvesting systems and optimizing renewable energy systems, alongside research on solid state batteries. Dr. Gohar's career vision is to contribute to the **net-zero energy transition** through innovations in solid state batteries, sustainable energy and water technologies.