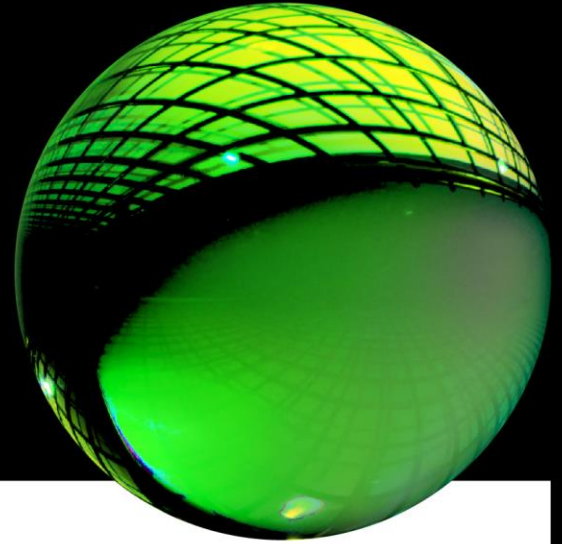


3 CERTIFICATE OF PARTICIPATION



Hereby we congratulate

Karim Elgammal

on the successful participation in the "Deloitte's Quantum Climate Challenge 2023" by Deloitte.

Organized by Deloitte, ekipa hosted the global Deloitte's Quantum Climate Challenge 2023, in which quantum experts were called upon to investigate how quantum computers may help to improve materials used in direct air capture of carbon dioxide.

Nearly 120 international innovators from 33 countries across 6 continents took part in the Challenge and created a quantum algorithm, a quantum hybrid or quantum inspired solution, that calculates the minimum of the potential energy surface of combinations gas molecules and ions.

Therefore, we hereby certify that Karim Elgammal together with his team has developed and submitted a paper explaining the created quantum algorithm, comparing the solution to at least one classical solution, describing advantages and disadvantages, conceptualizing a quantum or hybrid solution to scale the calculation as well as discuss the requirements for the solutions to be implemented in real quantum computers.

Justin Gemeri
CO-FOUNDER & CEO



ekipa GmbH