Document control sheet

1. ISBN or ISSN	**2. type of document (e.g. report, publication)** Veröffentlichung (Publikation)
3. title Zinc-Ion Batteries for stationary energy storage – Manufacturing and assembly (InFab) – Technology development for Zinc Ion-Battery cells/ modules	
4. author(s) (family name, first name(s)) Dr. Stubhan, Frank Düperthal, Benjamin	**5. end of project** 30.06.2024
	6. publication date 31.12.2024
	7. form of publication Sonstiges
8. performing organization(s) name, address acp systems AG Albring 18 78658 Zimmern ob Rottweil Germany	**9. orginators report no.**
	10. reference no. 03EI3040A
	11. no. of pages 23
12. sponsering agency (name, address) Bundesministerium für Wirtschaft und Klimaschutz (BMWK) 11019 Berlin Germany	**13. no. of references** 26
	14. no. of tables 3
	15. no. of figures 24
16. DOI (Digital Object Identifier)	
17. presented at (title, place, date) Bundesministerium für Wirtschaft und Klimaschutz (BMWK) 11019 Berlin Title: Zinc-Ion Batteries for stationary energy storage – Manufacturing and assembly (InFab) – Technology development for Zinc Ion-Battery cells/ modules Date: 31.12.2024	
18. abstract Zinc-ion batteries (ZIB) are a promising alternative to lithium-ion batteries (LIB) in the field of stationary energy storage, as they are more cost-effective and environmentally friendly than LIB. ZIB systems use non-toxic materials and water-based electrolytes and offer a high number of cycles and a high level of operational safety. The InFab project aims to develop an effective battery storage system for stationary applications and to create the conditions for large-scale production of ZIBs. The investigation is intended to optimise the ZIB technology with regard to its application for home storage systems. The project includes the development of cell architectures, production processes and battery management systems (BMS) as well as the realisation of comprehensive tests. Prototypes will be developed and evaluated to identify the best technology solutions. Machine prototypes have been developed to produce the first cells and modules cost-effectively and reliably. The knowledge gained is then used to visualise and plan the mass production of the ZIB. The production systems are characterised by a modular architecture that allows easy integration into battery production and corresponding scaling.	
19. keywords zinc-ion battery, battery storage, stationary energy storage, battery research, water-based electrolytes, technology development, battery management system	
20. publisher --	**21. price** --

Nicht änderbare Endfassung mit der Kennung 2623029-3