第34卷 第1期 电 池 Vol.34, No.1
2004年 2月 BATTERY BIMONTHLY Feb., 2004

锌镍电池的研制与开发

邓润荣，方 春，刘勇标，吴前麒，陈力中

（高力电池实业有限公司，广东 东莞 523660）

摘要：碱性锌镍电池在大电流高压部分放电及低温放电性能方面比碱性锌锰电池好，尤其适合在数码相机上使用，发展的关键是正极核心材料NiOOH的成本及质量的控制。可充锌镍电池性能优良，将部分取代铅酸电池成为今后电动环保车的主要能源，发展的关键是如何提高充放的循环次数，控制负极锌枝晶的生成及保证电池过充时氧气的快速复合。

关键词：锌镍电池； 锌电极； 镍电极

中图分类号：TM911 文献标识码：A 文章编号：1001-1579(2004)01-0050-03

Research and development of Zn/Ni battery

DENG Run-rong，FANG Chun，LIU Yong-biao，WU Qian-qi，CHEN Li-zhong

（Hi-Watt Battery Industry Co.，Ltd.，Dongguan，Guangdong 523660，China）

Abstract： Alkaline Zn/Ni batteries provided longer service life for high rate discharge at high voltage stage and better performance in low temperature condition. Their performance in these respect was better than alkaline Zn/MnO_2 batteries. They were very suitable for digital camera. The positive material NiOOH was the key factor of battery cost and the quality. Rechargeable Zn/Ni batteries had superior performance，they could replace lead-acid batteries as the power source of environmental automobile. How to increase charge-discharge cycles of the batteries，how to prevent the forming of zinc dendrite and how to ensure rapid combination of the oxygen during overcharge were the key points of batteries developing.

Key words： Zn/Ni battery； zinc electrode； nickel electrode