

Preface

Advances and developments in lead/acid batteries continue to be very much alive — possibly more so than at any time in the history of the technology. For example, about 100 years ago, patents were issued to Woodward for a novel form of tubular electrode, and to Gülcher for a pasted support that consisted of a woven fabric with lead wires as warp and bundles of glass filaments as weft. Nowadays, tubular battery designs are still a vital commercial activity and glass fibre has become a key component in valve-regulated batteries.

Today, as then, lead/acid batteries are clearly the market leaders in the field of rechargeable batteries. This success has been achieved through continuous technical innovation, increased understanding of complex electrochemical factors, high quality manufacture, and imaginative use — always driven by the increasing demands of customers who are ever hungry for “reliable electricity in a lightweight package”.

Lead/acid batteries have achieved this pre-eminent position by proving themselves to be excellent products that perform well in the hands of the public — and do so safely, at an acceptable cost. Moreover, the batteries are exceedingly suitable for efficient recycling.

Competition, however, lurks around the corner. Alternative battery chemistries, as well as other forms of power systems, dream of winning market share from lead/acid and/or awakening currently “dormant” markets for rechargeable batteries, such as electric vehicles, remote-

area power supply systems, and large-scale energy storage systems.

The key to maintaining and further strengthening this premier position of lead/acid must surely lie in the building of batteries with enhanced energy, power and life. To do this, both batterymakers and suppliers of materials and equipment to the industry must continually make improvements in the technology at all levels — to give smarter battery design, more efficient manufacture, higher operational performance, and cost-effective recycling of the spent product.

The European Lead Battery Conferences (ELBCs) are designed to aid this process by providing a world-class forum for the interchange of information on research, innovative design and advancements in lead/acid technology and manufacturing techniques.

This, the 5th ELBC, in Barcelona, Spain, will make a valuable contribution to the evolution of better lead/acid batteries as the passage of time moves the industry towards, and beyond, the year 2000.

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