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ELECTROLYTE MEMBRANE FUEL CELLS (PEMFCs)"; "2.1 What is PEMFCs?"; "2.2 Why Are PEMFCs so Important?"; "2.3 How do PEMFCs Work?"; "2.3.1 Activation Polarization"; "2.3.2 Ohmic Polarization"; "2.3.3 Concentration Polarization"; "2.3.4 Reactant Crossover and Internal Current Losses"; "3. BIPOLAR PLATES AND THEIR DESIGN"; "3.1 What Are the Bipolar Plates?"; "3.2 Why Are the Bipolar Plates Important?"; "3.3 Bipolar Plate Design"; "Pin-Type Flow Field"; "Straight Flow Field"; "Serpentine Flow Field"; "Integrated Flow Field"; "Interdigitated Flow Field"; "Flow-Field Designs Made From Metal Sheets"; "3.4 Materials for Bipolar Plates"; "3.4.1 Graphite Bipolar Plates"; "3.4.2 Composite Bipolar Plates"; "3.4.3 Metallic Bipolar Plates"; "3.4.3.1 Uncoated Metals"; "3.4.3.2 Coated Metals"; "4. CONCLUDING REMARKS"; "REFERENCE"; "FUEL CELL CONVERTERS FOR HIGH POWER APPLICATIONS"; "ABSTRACT"; "I. INTRODUCTION"; "II. FUEL CELL TECHNOLOGY"; "A. Basic Principle"; "B. Proton Exchange Membrane Fuel Cell"; "C. PEM Fuel Cell System"; "D. PEM Fuel Cell Performance"; "1. Static Characteristics"; "2. Dynamic Characteristics"; "III. FUEL CELL POWER CONDITIONING"; "IV. FUEL CELL POWER CONVERTERS"; "A. Non-Isolated Converter"; "1. Design Example of 2-Phase Interleaved Fuel Cell Converter [114]"; "2. Experimental Results of 2-Phase Interleaved Fuel Cell Converter"; "B. Modified Non-Isolated Converter"; "C. Ground Isolated Converter"; "V. CONCLUSION"; "ACKNOWLEDGMENT"; "BIOGRAPHIES"; "Phatiphat Thounthong"; "Bernard Davat"; "REFERENCES"; "CFD MODELS FOR ANALYSIS AND DESIGN OF AMBIENT AIR-BREATHING PEM FUEL CELLS"; "ABSTRACT"; "1. INTRODUCTION"
