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Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Foreword; Preface; Acknowledgments; Batching and Forming; LONG TERM RESULTS OF OXY FUEL FOREHEARTH HEATING TECHNOLOGY FOR E-GLASS FIBERS; ABSTRACT; INTRODUCTION; THE ALGLASS FH TECHNOLOGY; PREPARATION FOR INDUSTRIAL TRIALS; INDUSTRIAL RESULTS; CONCLUSIONS; REFERENCES; GLASS PRODUCTION LOSSES ORIGINATING FROM CONTAMINANTS IN CULLET AND RAW MATERIALS; ABSTRACT; INTRODUCTION; STONE DEFECTS PROCESS: ANALYSIS, SOURCING AND VERIFICATION; EXAMPLE CASE HISTORIES; Chromite in Fluorspar Raw Material; Spinel in Dolomite (limestone) Clay-Ceramic Particles in CulletCorundum Alumina in Cullet; CONCLUSIONS; REFERENCES; DEVELOPING A BETTER UNDERSTANDING OF BORON EMISSIONS FROM INDUSTRIAL GLASS FURNACES; ABSTRACT; INTRODUCTION; LABORATORY VOLATILE EMISSION ANALYSIS; FURNACE

VOLATILTY MODEL; CONCLUSION; REFERENCES; NEW DEVELOPMENTS OF BATCH BRIQUETTING; ABSTRACT; 1. INTRODUCTION; 2. LABORATORY TESTES; 2.1 Compaction batch experiments; 2.2 Melting experiment; 2.2.1 Influence of the hydroxidic raw materials on the lifetime of the foam; 2.2.2 Investigation of the influence of the decreptation on the briquettes
2.2.3 Investigation of the influence of compaction on the melt behavior2.2.4 Melting experiments in special furnace; 2.2.5 Influence of granulation and pressing on the homogeneity; 3. HALF-INDUSTERIAL TESTS; 3.1 Compacting experiments by a roller press (Briquetting); 3.2 Influence of compacting on the melting behavior of the glass melt; 3.3 Influence of compacting on the evaporation of boron from the glass melt surface; SUMMARY; OUTLOOK; ACKNOWLEDGEMENTS; APPLICATION OF SELF-SUPPORTING PRECIOUS METAL STIRRERS IN THE MELTING OF SODA-LIME GLASS; INTRODUCTION; CERAMIC STIRRERS IN GLASS MELTS
ENHANCED GLASS QUALITY REQUIRES SUPERIOR STIRRINGDISPERSION STRENGTHENED PRECIOUS METAL ALLOY FKS®.-> FROM CLADDING TO LOAD BEARING COMPONENT; ADVANCED DESIGN AND MANUFACTURING TECHNIQUES TO FULLY EXPLOIT THE FAVOURABLE FKS® PROPERTIES; TOTAL COST COMPARISON; CONCLUSION; Glass Melting; APPLICATION OF AN ENERGY BALANCE MODEL FOR IMPROVING THE ENERGY EFFICIENCY OF GLASS MELTING FURNACES; ABSTRACT; INTRODUCTION; VALIDATION OF THE ENERGY BALANCE MODEL; ENERGY BALANCE SIMULATIONS: ENDPORT-FIRED FURNACE; ENERGY BALANCE SIMULATIONS: OXY-FUEL FURNACE; ON-LINE ENERGY BALANCE MONITORING; CONCLUSIONS
ACKNOWLEDGEMENTSREFERENCES; OBSERVATION OF BATCH MELTING AND GLASS MELT FINING AND EVOLVED GAS ANALYSIS; ABSTRACT; INTRODUCTION; BATCH - GLASS MELT REACTIONS; 1. Solid state reactions; 2. Primary melt formation and melting of alkali rich carbonates; 3. Dissociation or decomposition reactions; 4. Dissolution of sand grains; 5. Reaction of sulfur species; DESCRIPTION OF THE EXPERIMENTAL EQUIPMENT; EXAMPLE 1 THE EFFECT OF BATCH BRIQUETTES VERSUS NORMAL AND GROUND BATCHES ON THE MELTING-IN PROCESS; EXAMPLE 2: THE EFFECT OF COKE ADDITION ON FINING AND SO2 RELEASE
EXAMPLE 3: THE EFFECT OF FURNACE ATMOSPHERE ON FINING ONSET TEMPERATURE

Sommario/riassunto

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