

1. Record Nr.	UNINA9910132218203321
Titolo	74th Conference on Glass Problems : a collection of papers presented at the 74th Conference on Glass Problems, Greater Columbus Convention Center, Columbus, Ohio, October 14-17, 2013 // edited by S. K. Sundaram
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-93294-3 1-118-93296-X 1-118-93295-1
Descrizione fisica	1 online resource (268 p.)
Collana	Ceramic Engineering and Science Proceedings
Disciplina	666 666.05 666/.05
Soggetti	Glass Glass manufacture Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
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 VOLATILITY 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 behavior
2.2.4 Melting experiments in special furnace; 2.2.5 Influence of granulation and pressing on the homogeneity; 3. HALF-INDUSTRIAL 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 STIRRING
DISPERSION
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: ENDPOR-T-FIRED FURNACE; ENERGY BALANCE SIMULATIONS: OXY-FUEL FURNACE; ON-LINE ENERGY BALANCE MONITORING; CONCLUSIONS
ACKNOWLEDGEMENTS
REFERENCES; 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

74th Conference on Glass Problems: Ceramic Engineering and Science Proceedings, Volume 35, Issue 1