

ANNUAL DIRECTORY JAHRESINHALTSVERZEICHNIS 2018

71th volume 71. Jahrgang



Cement Lime Gypsum
Zement Kalk Gips
www.zkg.de

EVENTS

15th NCB International Seminar brings together the construction materials community 15th NCB Seminar, New Delhi/India	1-2/22
Stable market for the German lime industry in 2017 Annual Meeting of the German Lime Industry Association (BVK)	7-8/24
Secondary resources at the IFAT 2018 IFAT 2018, Munich/Germany	7-8/26
WCA urges industry to focus on innovation in fight against Climate Change World Climate Change Forum, Paris/France.....	7-8/28
Eurosac Congress 2018 demonstrates the strong commitment of the paper sack industry Eurosac Congress 2018, Valletta/Malta.....	10/18
Climate protection and digitalisation and digitalisation are key challenges for the cement industry 8th International VDZ Congress 2018, Düsseldorf/Germany	11/22
Building bridges between academia and industry as well as east and west IBAUSIL - 20th International Conference on Building Materials, Weimar/Germany	11/24
5th Alternative Fuels Symposium with attendees from 32 countries MVW Lechtenberg & Partner, Duisburg/Germany	12/24
Chile and China strengthen International Lime Association Internationa Lime Association General Assembly, Cape Town/South Africa	12/28

PLANT REPORT

Experiences and insights from an installation for secondary fuels FLSmidth Pfister I FLSmidth Hamburg (Möller)	1-2/32
Complete scraper replacement F. E. Schulte Strathaus GmbH & Co.KG.....	3/20
The perfect set-up for change Beumer Group	3/22
Köhler Kalk invests in a new kiln Aerzener Maschinenfabrik GmbH	4/25
Peak performance for the lime kiln - Service Lift on constant duty Böcker Maschinenwerke GmbH.....	4/28
Extensive modernization - induction motor in the US enhances efficiency of cement factory Siemens AG	4/31
Pipe conveyors for environmentally safe and fast feed of alternative fuels Beumer Group	4/32

Innovative air cannon positioning at clinker cooler for easier maintenance

Martin Engineering 5/22

SRF production facility saves one million tons of CO2
Lindner-Recyclingtech GmbH..... 5/26

Vexor relies on Lindner's expertise to produce high-tech refuse-derived fuels
Lindner-Recyclingtech GmbH..... 6/26

BHS to build advanced recycling system in South Carolina
Bulk Handling Systems (BHS) 7-8/30

Full performance in any situation: Lindner Miura
Lindner-Recyclingtech GmbH..... 7-8/32

Reduced costs and increased safety: New fully automated storage system enhances cement plant operations
Thyssenkrupp Industrial Solutions AG 7-8/34

Through wild nature and populated regions
Beumer Group GmbH & Co.KG 9/22

Improving kiln stability at The Monarch Cement Company
FLSmidth Copenhagen/Denmark 9/26

Two shafts generate more mixing action than one
Bechteler, Ludwig..... 9/28

New bucket elevator increases plant capacity in Oman
Heko Group 9/32

The cement and lime specialists Otterbein rely on Sandvik drill rig technology
Sandvik Mining and Construction Central Europe GmbH 9/34

Conveyor equipment manufacturer uses unique strategy to control dust emissions
Martin Engineering 9/36

Cement plant overcomes remote conveyor issues with power generation technology
Martin Engineering 10/20

Without leaving a trace
Beumer Group

ENGINEERING

An integrated approach to alternative fuel use in cement making
Loesche GmbH

1-2/48

Alternative fuels at Nesher Israel Cement Enterprises
Nesher Israel Cement Enterprises..... 1-2/54

Wedge - smart process data analysis in real time
Savcor IT GmbH

3/50

Ceops - Expert analyzing system for mill operators
Cemtec Cement and Mining Technology GmbH..... 9/81

INTERVIEW

Alternative fuels coming on strong in the cement industry
Dirk Lechtenberg, Lechtenberg & Partner, Duisburg/Germany 1-2/26

The company is our whole life!
Köhler Kalk GmbH, Meissner-Vockerode/Germany 4/18

A trusted advisor for the worldwide lime industry
Michael Hünerlage and Harald Schwab, Eberhardt Schwab GmbH,
Lemgo/Germany 6/28

20th ibausil - a success story
Dr.-Ing. Hans Bertram Fischer, F.A. Finger Institut,
Weimar/Germany 11/28

Customer centricity is our perspective
Dr. Luc Rudowski, Cement Technologies Business Unit of Thyssenkrupp
Industrial Solutions, Germany 12/34

MANAGEMENT

DoLean Six Sigma to improve a cement production process
Fidan Yavuz, Evrim 4/60

Industry 4.0 - impact and potential of the digital transformation
Bauer, E.H. Wilhelm 10/26

PRODUCTS

Determining the venting capacity of bags with a mobile unit
Beumer Group GmbH & Co.KG 1-2/17

Film packaging protects paper bags from the environment
Beumer Group GmbH & Co.KG 1-2/17

Conveyor systems tracking technology: data points for safer, more dependable operation
Martin Engineering 1-2/18

New cement additives
GCP Applied Technologies 1-2/18

Sandvik launches powerful secondary stage crusher
Sandvik Mining and Rock Technology 1-2/19

Schenck Process launches Multidos VDP-C apron weighfeeder
Schenck Process Holding GmbH 1-2/20

New thermo detector for preventive fire protection
Fagus-Grecon Greten GmbH & Co.KG 1-2/20

System optimization due to process monitoring
Aerzener Maschinenfabrik GmbH 1-2/21

Precise carbon/sulfur analysis with flexible measuring range
Eltra GmbH 3/16

Flexco TUG HD belt clamp simplifies maintenance work on conveyor belts
Flexco Europe GmbH 3/16

FLSmidth Pfister launches new rotor weighfeeder model for hot gas generators
FLSmidth Pfister Europe 3/17

Aerzen develops innovative modular system for large blowers
Aerzener Maschinenfabrik GmbH 3/17

Cutting mill combination for the comminution of heterogeneous materials in the cement industry
Fritsch GmbH 4/14

ABB introduces gearless conveyor drive for wider range of motors
ABB Inc. 4/15

Dust-free automatic big-bag emptying system for fast emptying
Telschig Verfahrenstechnik GmbH 4/16

polysius graphite seal: Sealing every rotary kiln effectively and economically
Thyssenkrupp Industrial Solutions AG 5/18

Continuously operating Ploughshare Mixer KM 2000
Gebr. Lödige Maschinenbau GmbH 5/18

New planetary gear units for roller presses offer the best power density in the market
Flender GmbH 5/19

Flex-Mat High Vibration Wire Screen give up to 40% more throughput
Haver & Boecker 6/20

Transformation in real-time dust monitoring over long distances
Ecotech 6/22

Beumer fillpac R equipped with ultrasonic sealing unit
Beumer Group GmbH & Co.KG 6/23

Innovations in the field of waste processing
Eggersmann Gruppe 7-8/18

New diagnosis service
Flender GmbH 7-8/18

New Atlas stationary primary shredder with e-drive
Lindner-Recyclingtech GmbH 7-8/19

Polaris - one-step shredding
Lindner-Recyclingtech GmbH 7-8/19

Conveyor belts - lease, don't buy
Continental AG 7-8/20

Efficient reduction of energy costs and emissions EES Energy Efficient Solutions UG
EES Energy Efficient Solutions UG 7-8/21

VEZ 3200: Single-shaft pre-shredder with high throughput capacity
Vecoplan AG 10/14

Skirting systems stop material spillage at transfer point Flexco Europe GmbH.....	11/18
ABB expands Dodge Passport selection tool with belt conveyor design program ABB Inc.	12/21

PROCESS

Efficient process line for the production of high-quality surrogate fuels in Bulgaria Vecoplan AG	1-2/40
Economical production of alternative fuels for calciner firing Lindner-Recyclingtech GmbH.....	1-2/44
Automatic sampling system for substitute fuels Erdwich Zerkleinerungssysteme GmbH	1-2/46
Influence of material properties on the decomposition time of limestone under shaft kiln conditions Gourisankar Sandaka, Purna Chandra; Specht, Eckehard	3/52
Hot gas generators with free choice of fuel Carbotechnik Energiesysteme GmbH	3/58
Lime production experience 4.0 Cella, Edoardo	4/20
In-line calciner conversion at LafargeHolcim Mannersdorf Kern, Stefan; Sabadelli, Daniele; Köck, Bernhard.....	4/54
"Modelled fate of sulphur and chlorine in rotary lime kilns Part 1: Chemical equilibria prevailing in the kilns" EESAC SAS	5/66
How safe is your silo? Wuerth consulting Engineers	6/62
Numerical simulation of temperature field distribution in the kiln inlet system of a precalcining kiln Xu Xun; Wang Lan; Zhang Ronghua	6/66
Equipment manufacturers stress compliance with OSHA's silica dust deadline Martin Engineering I Bosstek	7-8/62
Gas formation characteristics and interaction during pulverized coal combustion in a precalciner environment Xiaolin Chen; Junlin Xie; Shuxia Mei; Feng He	7-8/66
Perfect dosing - precise and reproducible M-Tec Mathis Technik GmbH.....	10/64
Industrial security: Detecting and closing IT security gaps in industrial plants Koramis GmbH	11/44
Simplifying the geometry of a parallel-flow regenerative (PFR) kiln to achieve both long-term cost savings and process advantages Ommerborn, Thorsten; Kehse, Georg	12/64

Markets and Trends

Present and future situation of the Chinese cement industry Cui Yuansheng, Li Hui, Xu Delong, Jiang Rongfu, Gian Guiping, Xu Rong.....	3/26
The US cement industry has a new shape Harder, Joachim	4/36
Huge capacity expansions despite overcapacities Harder, Joachim	6/34
Optimism in India's cement industry Harder, Joachim	7-8/38
Latest trends in the lime industry Harder, Joachim	9/38
Iran's cement industry struggling with weak demand Espey, Robert.....	10/24
Carbon capture, utilization and storage in the cement industry Harder, Joachim	11/36

Materials

Status quo of co-incineration of solid recovered fuels in Germany Flamme, Sabine; Hams, Sigrid; Fricke, Claas	1-2/36
Hydration investigation of alpha calcium sulphate hemihydrates is influenced by waste water from the foundry sand regeneration process Moni, Fuad Kabir; Pritzel, Christian; Götz, Burkhard, Sakalli, Yilmaz; Trettin, Reinhard.....	3/36
Evaluation of extensive series of diffractograms with the aid of factor analysis Westphal, Torsten; Bier, Thomas A.....	3/42
Experimental study of the effect of water-to-cement ratio on various properties of nano silica concretes with polypropylene fibers Rahmani, Kamal; Ghaemian, Mohsen; Hosseini, Abbas.....	4/44
Structural parameters and properties of fine-grained concrete on Portland cement, activated with plasticizers in vortex layer apparatuses Ibragimov, R.A.; Korolev, E.V.; Deberdeev, T.R.; Leksin, V.V.	5/28
Solidification of simulated borate liquid wastes with alkali-activated slag cements Rakhimova, Nailia R.; Rakhimov, Ravil Z.; Morozov, Vladimir P.; Gubaidullina, Alfiya M.; Naumkina, Natalia I.; Osin, Yury N.....	5/36
Influence of sodium sulfate on hydration and microstructure of cement high volume fly ash system under steam curing Junpeng Mei; Baoguo Ma; Xiaohai Liu; Hongbo Tan; Ting Zhang; Xin Li; Hainan Li.....	5/46

Experimental study of the effect of water/cement ratio and polypropylene fiber on the mechanical properties of nano-silica concretes	Set-retarding plasticizers for improving the effectiveness of gypsum-cement-pozzolan binders
Piroti, Saber; Najarchi, Mohsen; Hezavehi, Emadaldin; Najafizadeh, Mohammad Mahdi; Mirhosseini, Seyyed Mohamad5/56	Galaudinov, Albert; Mukhametrakhimov, Rustem..... 11/52
"Improving the thermal insulation properties of thin-bed mortar	Calcined mixture of clay and limestone as a complex additive for blended Portland cement
Part 1: Impact evaluations of various admixtures on materials engineering parameters"	Ermilova, E.U.; Rakhimov, R.Z.; Kamalova, Z.A.; Bulanov, P.E..... 11/58
Schmidt, Sebastian; Pöllmann, Herbert; Krcmar, Wolfgang.....6/42	Effect of calcined clays on the physical-mechanical properties of hardened Portland cement pastes
Pre-hydration of cement: global survey and laboratory results	Rakhimov, Ravil Z.; Rakhimova, Nailia R. ; Gaifullin, Albert R..... 12/40
Silva, Denise A.; Thomas, Jeffrey; Kazmierczak, Dorota; Cheung, Josephine6/55	Effect of nano-SiO₂ and curing temperature on the mechanical properties and hydration characteristics of cement systems containing a high volume of fly ash
Influence of nano-TiO₂ on mechanical property and hydration characteristics of cement high volume of fly ash system	Hainan Li; Jing Wu; Baoguo Ma; Hongbo Tan; Pan Pan 12/48
Hainan Li; Jing Wu; Shuang Wang, Baoguo Ma; Junpeng Mei; Hongbo Tan7-8/46	Influence of lead nitrate on the early hydration of high alumina cement that contains spinel
Effect of cupric nitrate on the hydration of remaining slag from titanium-bearing BF slag	Jingran Wan; Jinhua Zhang; Xuexin Liu..... 12/58
Jingran Wan; Changming Ke; Jinhua Zhang7-8/56	
Interactions between cellulose ethers and cements with several main constituents in a model mix formulation for tile adhesives	
Hecker, Andreas; Kiesewetter, René, Herrmann, Jens; Rickert, Jörg; Ludwig, Horst-Michael.....9/46	
"Improving the thermal insulation properties of thin-bed mortar	
Part 2: Impact evaluations of various admixtures on materials engineering parameters"	
Schmidt, Sebastian; Sappa, Daniela; Pöllmann, Herbert; Krcmar, Wolfgang.....9/52	
Why it is so hard to develop new binder systems for mass application	
Achternbosch, Matthias; Dewald, Ulrich, Nieke, Eberhard; Sardemann, Gerhard9/68	
Effect of mineralogical substitution raw material mixing ratio on mechanical properties of concrete	
Kirgiz, Mehmet Serkan10/30	
Effects of fumed silica on material engineering parameters of external rendering, with special emphasis on thermal conductivity and compressive strength	
Schmidt, Sebastian; Grotz, Tim; Pöllmann, Herbert; Krcmar, Wolfgang.....10/42	
Improving early-age strength of fly ash cement and increasing fly ash content by inter-grinding	
Zencirci, Ergin Sarp; Altun, Okay; Benzer, Ahmet Hakan; Onat, Levent; Nemli, Osman10/52	
Calcium sulfate composite binders containing pozzolans for use in planar products	
Riechert, Christin; Aschern, Winfried; Fischer, Hans-Bertram.....11/47	

A

- Achternbosch, Matthias; Dewald, Ulrich, Nieke, Eberhard; Sardemann, Gerhard**
Why it is so hard to develop new binder systems for mass application9/68

B

- Bauer, E.H. Wilhelm**
Industry 4.0 - impact and potential of the digital transformation10/26

C

- Cella, Edoardo**
Lime production experience 4.03/26
- Cui Yuansheng, Li Hui, Xu Delong, Jiang Rongfu, Gian Guiping, Xu Rong**
Present and future situation of the Chinese cement industry11/58

E

- Ermilova, E.U.; Rakhimov, R.Z.; Kamalova, Z.A.; Bulanov, P.E.**
Calcined mixture of clay and limestone as a complex additive for blended Portland cement11/58
- Espey, Robert**
Iran's cement industry struggling with weak demand10/24

F

- Fidan Yavuz, Evrim**
Lean Six Sigma to improve a cement production process.4/60

G

- Galautdinov, Albert; Mukhametrakhimov, Rustem**
Set-retarding plasticizers for improving the effectiveness of gypsum-cement-pozzolan binders11/52
- Gourisankar Sandaka, Purna Chandra; Specht, Eckehard**
Influence of material properties on the decomposition time of limestone under shaft kiln conditions3/52

H

- Hainan Li; Jing Wu; Baoguo Ma; Hongbo Tan; Pan Pan**
Effect of nano-SiO₂ and curing temperature on the mechanical properties and hydration characteristics of cement systems containing a high volume of fly ash12/48

- Hainan Li; Jing Wu; Shuang Wang, Baoguo Ma; Junpeng Mei; Hongbo Tan**

Influence of nano-TiO₂ on mechanical property and hydration characteristics of cement high volume of fly ash system7-8/46

Harder, Joachim

The US cement industry has a new shape.....4/36

Harder, Joachim

Huge capacity expansions despite overcapacities6/34

Harder, Joachim

Optimism in India's cement industry7-8/38

Harder, Joachim

Latest trends in the lime industry9/38

Harder, Joachim

Carbon capture, utilization and storage in the cement industry11/36

- Hecker, Andreas; Kiesewetter, René, Herrmann, Jens; Rickert, Jörg; Ludwig, Horst-Michael**

Interactions between cellulose ethers and cements with several main constituents in a model mix formulation for tile adhesives9/46

I

- Ibragimov, R.A.; Korolev, E.V.; Deberdeev, T.R.; Leksin, V.V.**

Structural parameters and properties of fine-grained concrete on Portland cement, activated with plasticizers in vortex layer apparatuses5/28

J

- Jingran Wan; Changming Ke; Jinhua Zhang**

Effect of cupric nitrate on the hydration of remaining slag from titanium-bearing BF slag7-8/56

- Jingran Wan; Jinhua Zhang; Xuexin Liu**

Influence of lead nitrate on the early hydration of high alumina cement that contains spinel12/58

- Junpeng Mei; Baoguo Ma; Xiaohai Liu; Hongbo Tan; Ting Zhang; Xin Li; Hainan Li**

Influence of sodium sulfate on hydration and micro-structure of cement high volume fly ash system under steam curing5/46

K

- Kern, Stefan; Sabadelli, Daniele; Köck, Bernhard**

In-line calciner conversion at LafargeHolcim Mannersdorf4/54

- Kirgiz, Mehmet Serkan**

Effect of mineralogical substitution raw material mixing ratio on mechanical properties of concrete10/30

O

Ommerborn, Thorsten; Kehse, Georg

Simplifying the geometry of a parallel-flow regenerative (PFR) kiln to achieve both long-term cost savings and process advantages 12/64

P

Piroti, Saber; Najarchi, Mohsen; Hezavehi, Emadaldin; Najafizadeh, Mohammad Mahdi; Mirhosseini, Seyyed Mohamad

Experimental study of the effect of water/cement ratio and polypropylene fiber on the mechanical properties of nano-silica concretes 5/56

R

Rahmani, Kamal; Ghaemian, Mohsen; Hosseini, Abbas

Experimental study of the effect of water-to-cement ratio on various properties of nano silica concretes with polypropylene fibers 4/44

Rakhimov, Ravid Z.; Rakhimova, Nailia R.; Gaifullin, Albert R.

Effect of calcined clays on the physical-mechanical properties of hardened Portland cement pastes 12/40

Rakhimova, Nailia R.; Rakhimov, Ravid Z.; Morozov, Vladimir P.; Gubaidullina, Alfiya M.; Naumkina, Natalia I.; Osin, Yury N.

Solidification of simulated borate liquid wastes with alkali-activated slag cements 5/36

Riechert, Christin; Aschner, Winfried; Fischer, Hans-Bertram

Calcium sulfate composite binders containing pozzolans for use in planar products 11/47

S

Schmidt, Sebastian; Grotz, Tim; Pöllmann, Herbert; Krcmar, Wolfgang

Effects of fumed silica on material engineering parameters of external rendering, with special emphasis on thermal conductivity and compressive strength 10/42

Schmidt, Sebastian; Pöllmann, Herbert; Krcmar, Wolfgang

"Improving the thermal insulation properties of thin-bed mortar

Part 1: Impact evaluations of various admixtures on materials engineering parameters" 6/42

Schmidt, Sebastian; Sappa, Daniela; Pöllmann, Herbert;

Krcmar, Wolfgang

"Improving the thermal insulation properties of thin-bed mortar

Part 2: Impact evaluations of various admixtures on materials engineering parameters" 9/52

Silva, Denise A.; Thomas, Jeffrey; Kazmierczak, Dorota;

Cheung, Josephine

Pre-hydration of cement: global survey and laboratory results 6/5

X

Xiaolin Chen; Junlin Xie; Shuxia Mei; Feng He

Gas formation characteristics and interaction during pulverized coal combustion in a precalciner environment 7-8/66

Xu Xun; Wang Lan; Zhang Ronghua

Numerical simulation of temperature field distribution in the kiln inlet system of a precalcining kiln 6/66

Z

Zencirci, Ergin Sarp; Altun, Okay; Benzer, Ahmet Hakan; Onat, Levent; Nemli, Osman

Improving early-age strength of fly ash cement and increasing fly ash content by inter-grinding 10/52