

Publications by Vintage

- ▶ Before 2015
- ▶ 2015
- ▶ 2016
- ▶ 2017
- ▶ 2018
- ▶ 2019

() Before 2015

1. Specht, E.; Jeschar, R.: Theoretische Untersuchungen über den Abbrand von Kohlenstoffpartikeln. VDI-Berichte Nr. 423 (1981), 235-240.
2. Jeschar, R.; Kainer, H.; Specht, E.: Der Einfluß carbonatischer Zuschläge auf das thermische Verhalten von Beton unter Brandbeanspruchung. Schriftenreihe des SFB 148 "Brandverhalten von Bauteilen", TU Braunschweig, 1982.
3. Jeschar, R.; Pötke, W.; Specht, E.: Strömung und Wärmeübertragung in Reaktoren zur Reduktion von Eisenerzen. Metallurgie Teil I: Eisenerzeugung S. 189-224. Verlag Stahleisen mbH Düsseldorf, 1982.
4. Specht, E.; Jeschar, R.: Kopplung von Stoffaustausch mit chemischer Kinetik beim Abbrand von Kohlepartikeln. Ber. Bunsenges. Phys. Chem. 87 (1983), 1095-1099.
5. Specht, E.; Jeschar, R.: Ähnlichkeitskennzahlen zur Beschreibung des Einflusses der Temperaturabhängigkeit von Stoffwerten beim Wärmeübergang an überströmten Körpern. Wärme- und Stoffübertragung 18 (1984), 75-81.
6. Jeschar, R.; Specht, E.: Über den Abbrandverlauf einzelner Kohlenstoffpartikel. Abhandlungen der Braunschweigischen Wissenschaftlichen Gesellschaft 36 (1984), 153-192.
7. Specht, E.: Kopplung von Konvektion mit chemischer Kinetik beim Abbrand von Kohlepartikel. Dissertation TU Clausthal, 1984.
8. Specht, E.; Jeschar, R.: Rückströmung von Einzelstrahlen in zylindrischen und quadratischen Räumen. Die Industriefeuerung 34 (1985), 43-47. Gaswärme International 34 (1985), 494-499.
9. Specht, E.; Kainer, H.; Jeschar, R.: Reaction, Pore Diffusion and Thermal Conduction Coefficients of Various Magnesites and their Influence on the Decomposition Time. Radex-Rundschau (1986), 4, 248-268.
10. Kainer, H.; Specht, E.; Jeschar, R.: Pore diffusion, reaction and thermal conduction coefficients of various limestones and their influence on decomposition time. Cement, Lime, Gypsum 39 (1986), 5, 259-268 (deutsch). Cement, Lime, Gypsum 39 (1986), 7, 214-219 (englisch).
11. Specht, E.; Jeschar, R.: Reaktionsmechanismen und Abbrandgeschwindigkeit mit Luft angeströmter Kohlenstoffteilchen. Steel Research 57 (1986), 148-159.
12. Specht, E.; Jeschar, R.: Ermittlung der geschwindigkeitsbestimmenden Mechanismen bei der Verbrennung von dichten Kohleteilchen. VDI-Berichte Nr. 645 (1987), 45-56.
13. Jeschar, R.; Specht, E.; Bittner, H.-G.: Wärmebehandlungsanlagen und -öfen. (Herausgeber: G. Spur) Bd. 4/2, S. 64-714. Carl Hanser Verlag München, 1987.
14. Specht, E.; Jeschar, R.: The Rate-Determining Mechanismus for the Burn-off of Carbon Particles. Coal Combustion (Editor J. Feng) pp. 283-290. Springer-Verlag Berlin, 1988.
15. Postrzednik, St.; Bialecki, R.; Nowak, A.; Scholz, R.; Specht, E.: Zur Problematik der Selbsterwärmung fester Brennstoffe (1). Erdöl, Erdgas, Kohle 104 (1988), 79-85.
16. Postrzednik, St.; Bialecki, R.; Nowak, A.; Scholz, R.; Specht, E.: Zur Problematik der Selbsterwärmung fester Brennstoffe (2). Erdöl, Erdgas, Kohle 104 (1988), 277-281.
17. Jeschar, R.; Specht, E.; Bittner, H.-G.: Brennstoff- und Kosteneinsparung durch Sauerstoffanreicherung der

- Verbrennungsluft in Industrieöfen. Stahl und Eisen 108 (1988), 835-840.
18. Jeschar, R.; Köhler, C.; Specht, E.; Heidt, V.: Methods of Defined Cooling of Metallic Materials. Int. Congress, METEC 89, Proceedings, New Developments in Metallurgical Processing, Düsseldorf, 22.-24.5.1989.
 19. Jeschar, R.; Köhler, Chr.; Specht, E.; Heidt, V.: Methoden zur definierten Abkühlung metallischer Werkstoffe. Gaswärme International 38 (1989), 223-229. Die Industriefeuerung 47 (1989), 34-39.
 20. Specht, E.: Simplified computation of heat conduction in solids. Ceramic forum int. 67 (1990), 518-527.
 21. Specht, E.; Alt, R.: Temperature Compensation in Heated Solids. Steel research 61 (1990), 569-575.
 22. Bittner, H.-G.; Specht, E.: Evaluation criteria for industrial kilns in the ceramic industry. Ceramic forum int. 67 (1990), 502-508.
 23. Jeschar, R.; Specht, E.; Heidt, V.: Wärmeübertragung bei der Direktkühlung. Proceedings of "Stranggießen" der DGM, 15. und 16.11.1990 in Bad Nauheim.
 24. Köhler, Chr.; Specht, E.; Jeschar, R.: Heat Transfer with Film Quenching of Vapourizing Liquids. Steel research 61 (1990), 553-559.
 25. Jeschar, R.; Alt, E.; Specht, E.: Grundlagen der Wärmeübertragung. Viola-Jeschar-Verlag Goslar, 1990.
 26. Jeschar, R.; Specht, E.: Berechnung des Erstarrungsvorganges und der Wärmeübertragung beim Strangguß. Stranggießen (Herausgeber: K. Schwerdtfeger) S. 91-124. Verlag Stahleisen mbH Düsseldorf, 1991.
 27. Jeschar, R.; Pötke, W.; Scholz, R.; Specht, E.; Köhler, E.: Die Arbeitsgebiete des Instituts für Energieverfahrenstechn Gaswärme Int. 40 (1991), 281-285.
 28. Jeschar, R.; Specht, E.; Heidt, V.: Mechanismen der Wärmeübertragung beim Kühlen von Metallen mit verdampfende Flüssigkeiten. Abhandlungen der Braunschweigischen Wissenschaftlichen Gesellschaft, 42 (1991), 57-83.
 29. Specht, E.; Jeschar, R.; Heidt, V.: An Analytical Model for Free Convection Film Boiling on Immersed Solids. Chemical Engineering and Processing 31 (1992), 137-146.
 30. Specht, E.; Jeschar, R.: Heat Transfer in Continuous Casting During Water-Spray Cooling. Heat and Mass Transfer in Material Processing, 535-547. Oji International Seminar on Advanced Heat Transfer in Manufacturing and Processing New Material, 28. - 31.10.1990, Hemisphere Publishing Corporation, Washington, 1992.
 31. Heidt, V.; Specht, E.; Jeschar, R.: Heat Transfer in Continuous Casting During Film-Cooling. Heat and Mass Transfer Material Processing, 548-561. Tomakomai (Japan). Hemisphere Publishing Corporation, Washington, 1992.
 32. Jeschar, R.; Pötke, W.; Scholz, R.; Specht, E.: Arbeitsgebiete des Instituts für Energieverfahrenstechnik der TU Clausthal. Mitteilungsblatt der TU Clausthal Heft 74 (1992), 14-18 und Heft 75, 29-34.
 33. Jeschar, R.; Specht, E.; Köhler, Chr.: Heat Transfer During Cooling of Heated Metal Objects With Evapourating Liquid Theory and Technology of Quenching (Editors: H. Tensi, B. Liscic, W. Luty) pp. 73-92. Springer-Verlag Berlin, 1992.
 34. Specht, E.: Kinetik der Abbaureaktionen. Cuvillier Verlag Göttingen 1993.
 35. Specht, E.; Jeschar, R.: Kinetics of Steel Melting in Carbon-Steel Alloys. Steel research 64 (1993), 28 - 34.
 36. Specht, E.; Jeschar, R.: Wärmerückgewinnung in Industrieöfen. Proceedings des 29. Metallurgischen Seminars der Gesellschaft Deutscher Metallhütten- und Bergleute am 17. - 19. 11. 1993 in Schwerin.
 37. Jeschar, R.; Specht, E.; Bittner, H.-G.: Beiträge im VDI-Lexikon Energietechnik. VDI-Verlag Düsseldorf, 1994.
 38. Specht, E.; Jeschar, R.: Verbrennung und Feuerungen - 16. Deutscher Flammentag. Gaswärme Int. 43 (1994), 62 - 6 Die Industriefeuerung 59 (1994), 6-10. Mitteilungsblatt der TU Clausthal 77 (1994), 36-39.
 39. Jeschar, R.; Specht, E.: Abschreckwirkung durch Aufspritzen von Gas-Wasser-Gemischen. Proceedings der Tagung "Abkühlen-Abschrecken" der Arbeitsgemeinschaft Wärmebehandlung und Werkstoffkunde (AWT), 20. und 21. 4. 1994 in Straßburg.
 40. Specht, E.; Jeschar, R.: Verbrennung und Feuerungen - 16. Deutscher Flammentag. Brennstoff-Wärme-Kraft 46 (1994), 237-238.
 41. Specht, E.; Giese, A.; Jeschar, R.: Einfluß von Größe, spez. Oberfläche und Temperatur auf die Abbrandgeschwindigkeit von Kokspartikeln. VDI-Berichte Nr. 1000 (1995), 173 - 180.
 42. Jeschar, R.; Specht, E.; Steinbrück, A.: Energieverbrauch und CO₂-Emission bei der Herstellung und Entsorgung von Abwasserrohren aus verschiedenen Werkstoffen. Korrespondenz Abwasser 42 (1995), 537-549.
 43. Jeschar, R.; Specht, E.; Steinbrück, A.: Eco-Balances for the production of pipes for drains and sewers. Ziegelindustrie (1995), 245-254.
 44. Jeschar, R.; Specht, E.; Bittner, H.-G.: Beiträge im VDI-Lexikon Produktionstechnik Verfahrenstechnik. VDI-Verlag Düsseldorf, 1995.
 45. Jeschar, R.; Specht, E., Steinbrück, A.: Umweltbeeinflussung bei der Herstellung von Abwasserrohren aus verschiedenen Werkstoffen. Korrespondenz Abwasser 43 (1996), 61-70.
 46. Specht, E., Steinbrück, A.; Jeschar, R.: Cumulative energy consumption of pipes for drains and sewers. Ziegelindustrie (1996), 224-230.
 47. Specht, E.; Jeschar, R.: Kumulativer Energieverbrauch bei verschiedenen Produktionslinien von Abwasserrohren aus

- Steinzeug. Korrespondenz Abwasser 44 (1997), 841-847.
48. Specht, E.; Jeschar, R.: Vergleich des kumulierten Energieaufwandes der wichtigsten Werkstoffe am Beispiel von Abwasserrohren. VDI-Berichte 1385 (1998), 173-186.
 49. Specht, E.: Abwasserrohre im Vergleich. Bauwirtschaftliche Informationen (1999), 32-36.
 50. Specht, E.: Die Beherrschung des Feuers als Schlüssel zur Entwicklung der Menschheit und die Auswirkung auf die Umwelt. Magdeburger Wissenschaftsjournal (1999), Nr. 1, 33-37.
 51. Holzapfel, K.-U.; Specht, E.: Wärmeübergang zwischen Transportrolle und Gut im Rollenofen. Gaswärme Int. 48 (1999), 275-280.
 52. Fehlau, M.; Specht, E.: Energie- und Kosteneinsparung bei Trocknungsprozessen. Brennstoff Wärme Kraft 51 (1999), 46-50.
 53. Specht, E.; Holzapfel, K.-U.: Compensation of the Heat Transfer on the Upper-Side and Under-Side in Roller Kilns. Proceedings 5th European Conference on Industrial Furnaces and Boilers, Porto 2000, Vol. 1, pp 577-586.
 54. Wadewitz, A.; Specht, E.: The Limit Value of the Nusseltnumber for Small Particles. Proceedings 3rd European Therm Science Conference, Heidelberg 2000, 139-143.
 55. Puschmann, F.; Specht, E.; Schmidt, J.: Evaporation Quenching with Atomized Sprays. Proceedings 3rd European Thermal Science Conference, Heidelberg 2000, 1071-1074.
 56. Specht, E.; Holzapfel, K.-U.: Heat Transfer Between Transport Rollers and Plates. Proceedings 3rd European Thermal Science Conference, Heidelberg 2000, 701-704.
 57. Kaiser, R.; Specht, E.; Jeschar, R.: Gebrauchsgleichungen für die Guterwärmung bei Strahlung - ermittelt mit einem genetischen Algorithmus. Gaswärme Int. 49 (2000) 355-358.
 58. Fehlau, M.; Specht, E.: Optimization of the Vapor Compression for Cost Savings in Drying Processes. Chemical Engineering Technology 23 (2000) 901-908.
 59. Puschmann, F.; Specht, E.; Schmidt, J.: Local Distribution of the Heat Transfer in Water Spray Quenching. International Conference on Continuous Casting of Non-Ferrous Metals. Proceedings of the DGM Frankfurt Nov. 2000, 101-107.
 60. Puschmann, F., Sellnow, U.; Specht, E.; Oehler, K.-J.: Ölheizung mit Brennwertechnik, Abgasentschwefelung und Stickoxidreduzierung. Heizung, Lüftung, Klima, Haustechnik 51 (2000) 24-32.
 61. Wadewitz, A.; Specht, E.: Limit Value of Nusseltnumber for Particle of Different Shape. Int. J. of Heat and Mass Trans 44(2001), 967-975.
 62. Specht, E.: Simulation und Messung von Prozessen in Industrieöfen. Gaswärme Int. 50 (2001), 174-177.
 63. Puschmann, F.; Specht, E.; Schmidt, J.: Measurement of Spray Cooling Heat Transfer Using an Infrared-Technique. World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Thessaloniki (Greece) Sep 24-28 (2001), 1311-1315.
 64. Giese, A.; Specht, E.: Influence of Shape on the Burn-off of Coke Particle. Proceedings of the 3rd European Congress of Chemical Engineering, Nürnberg 26-28 June (2001). Kurzfassung: Chemie Ingenieur Technik 73 (2001) 686.
 65. Fehlau, M.; Specht, E.: Rheologisches Verhalten von Klärschlamm und Charakterisierung der Leimphase. Korrespondenz Abwasser 48 (2001) 950 - 960.
 66. Fehlau, M.; Specht, E.: Druckabhängigkeit des Schadstoffübergangs in die Brüden bei der indirekten Klärschlammrocknung. Korrespondenz Abwasser 48 (2001) 1247 - 1254.
 67. Mellmann, J.; Specht, E.: Mathematische Modellierung des Übergangsverhaltens zwischen den Formen der transversalen Schüttgutbewegung in Drehrohren (Teil 1). Englisch und Deutsch. Zement, Kalk, Gips Int. 54 (2001), 287 - 296.
 68. Mellmann, J.; Specht, E.: Mathematical Modelling of the Transition Behaviour between the various Forms of Transverse Motion of Bulk Materials in Rotating Cylinders (Part 2). English and German. Cement, Lime, Gypsum Int. 54 (2001) 387 - 402.
 69. Giese, A.; Specht, E.: Einfluss der Form auf die Verbrennung von Kohlepartikel mit gleichem Siebdurchmesser. 20. Deutscher Flammentag. VDI Berichte (2001) Nr. 1629, 109-114.
 70. Puschmann, F.; Specht, E.; Schmidt, J.: Measurement of Spray Cooling Heat Transfer Using an Infrared-Technique in Combination with the Phase-Doppler Technique and a Patternator. Int. J. of Heat and Mass Trans 19 (2001) 51 - 56.
 71. Fritsching, U.; Ohland, J.; Belkessam, O., Lübber, T.; Mayr, P.; Specht, E.; Brzoza, M.: Flexible Gasabschreckung komplexer Bauteile zur Einstellung gleichmäßiger Härte und minimierter Maß- und Formänderungen. Gaswärme Int. 51 (2002) 227-231.
 72. Tao, Y.; Adler, W.; Specht, E.: Numerical Analysis of Multiple Jets Discharging into a Confined Cylindrical Crossflow. Journal of Process Mechanical Engineering 216 (2002), 173-180.
 73. Woche, H.; Specht, E.; Schmidt, J.: Messung des lokalen Wärmeübergangs im Einlaufbereich von Rohren nach

- Querschnittsänderungen. Dechema-Jahrestagung (2002), 11./13. Juni, Wiesbaden. Kurzfassung in „Chemie Ingenieur Technik“ 74, S. 578.
74. Woche, H.; Specht, E.; Schmidt, J.: Messung des lokalen Wärmeübergangs im Einlaufbereich von Rohren nach Querschnittsänderungen. *Chemie Ingenieur Technik* 74 (2002), 1711-1714.
 75. Nirmolo, A.; Woche, H.; Specht, E.: Mixing of Combustible Gases in a Cylindrical Chamber with Radial Injection of Air. *Proceedings of 12th Int. Conference on Modelling Fluid Flow Technologies*, 3. - 6. Sept. 2003 Budapest (Hungary) pp. 301-307.
 76. Chmielowski, M.; Specht, E.: Einfluss der Transportrollen auf den Wärmeübergang in Rollenöfen. *Gaswärme Int.* 52 (2003), 451-455.
 77. Giese, A.; Specht, E.: Einfluss der Gaszusammensetzung auf die Flammenlänge in Drehrohröfen. *VDI Berichte Nr. 1750 (21. Deutsche Flammentag)* (2003) 145-152.
 78. Puschmann, F.; Specht, E.: Spraykühlung als alternatives Kühlverfahren für heiße Metalle. *Chemie Ingenieur Technik* 75 (2003) 1625-1628.
 79. Specht, E.; Brzoza, M.: Simulation of Structure and Stresses during Quenching of Steel Charges to Minimize Distortion. *Journal of the University of Chemical Technology and Metallurgy in Sofia (Bulgaria)*, XXXVIII, 4 (2003), 1167-1176.
 80. Puschmann, F.; Specht, E.: Atomized Spray Quenching as an Alternative Quenching Method for Defined Adjustment of Heat Transfer. *Steel research int.* 75 (2004) 283-288.
 81. Puschmann, F.; Specht, E.: Transient Measurement of Heat Transfer for Metal Quenching with Atomized Sprays. *Experimental Thermal and Fluid Science* 28 (2004) 607-615.
 82. Bes. A.; Specht, E.: Lowering Energy Usage of Limestone Calcination in Shaft Kilns by Dynamic Process Simulation. *2nd Int. Conference on Contemporary Problems of Thermal Engineering*. Gliwice-Ustron. 21.-25. June 2004, Poland, 219-224.
 83. Díaz, M.C.; Woche, H.; Schmidt, J.; Specht, E.: Measurement of Local Heat Transfer Coefficients of Developing Flow: Using IR-Thermography. *7th Int. Conference on Quantitative Infrared Thermography*. 5.-8. July 2004, von Karman Institute, Rhode-St. Genese, Belgium. D.6.1-6.6.
 84. Chmielowski, M.; Specht, E.: Einfluss der Transportrollen auf die Temperaturverteilung in plattenförmigem Gut in Rollenöfen. *Gaswärme int.* 7 (2004) 1-4.
 85. Mellmann, J.; Liu, X.; Specht, E.: Prediction of Rolling Bed Motion in Rotating Cylinders. *AICHE Journal* 50 (2004) 1, 2783-2793.
 86. Liu, X.; Mellmann, J.; Specht, E.: Factors influencing the rolling bed motion and transverse particle residence time in rotary kilns. *Cement, Lime, Gypsum int.* 58 (2005) 62-73.
 87. Pietzsch, R.; Brzoza, M.; Kaymak, Y.; Specht, E.; Bertram, A.: Minimizing of Distortion of Steel Profiles by Controlled Cooling. *Steel Research int.* 76 (2005) 399-407.
 88. Liu, X.; Specht, E.; Mellmann, J.: Slumping-rolling transition of granular solids in rotary kilns. *Chemical Engineering Science*. 60 (2005) 3629-3636.
 89. Woche, H.; Specht, E.; Schmidt, J.: Local Heat Transfer in Tubes after Sudden Change of Diameters. *Chemical Engineering and Technology* 28 (2005) 677-683.
 90. Liu, X.; Specht, E.; Mellmann, J.: Experimental study of the upper and lower angle of repose of granular materials in rotating drums. *Powder Technology* 154 (2005) 125-131.
 91. Brzoza, M.; Specht, E.; Ohland, J.; Lübber, Th.; Belkessam, O.; Fritsching, U.; Mayr, P.: Düsenfeldanpassung bei der flexiblen Gasabschreckung zur Vergleichmäßigung des Härteergebnisses am Beispiel einer abgesetzten Welle. *Härterei-Technische Mitteilungen* 60 (2005) 166-172.
 92. Woche, H.; Nirmolo, A.; Skroch, R.; Specht, E.: Intensivmischung von radialen Düsenstrahlen mit einer Hauptströmung. *Gaswärme International* 54 (2005) 301-307.
 93. Junge, K.; Specht, E.; Telljohann, U.; Deppe, D.: Drying of green bricks. *Brick and Tile Industry International* No 8 (2005) 39-51.
 94. Agustini, S.; Specht, E.: Influence of the Regenerative Heat of the Wall on the overall Heat Transfer in Rotary Kilns. *Cement international* 3 (2005), 60-73.
 95. Krol, J.; Specht, E.; Puschmann, F.: Atomized Spray for Adjustment of Local Heat Transfer in Metal Quenching. *Int. Symp. On Heat and Mass Transfer in Spray Systems*. 5 -10 June 2005, Antalya (Turkey) (ISBN 1-56700-223-4).
 96. Brzoza, M.; Specht, E.; Ohland, J.; Belkessam, O.; Lübber, T.; Fritsching, U.: Minimizing Stress and Distortion for Shafts and Discs by Controlled Quenching in a Field of Nozzles. *Proceedings of 1st Int. Conference on Distortion Engineering*, 14. - 16. Sept. 2005, Bremen, Germany, 397-404 (ISBN 3-88722-653-4).
 97. Krol, J.; Specht, E.: Influence of Quality of Water and Roughness of Surface on Quenching Rate. *International Conference on Continuous Casting of Non-Ferrous Metals*. 14. - 16. Nov. 2005 Neu-Ulm (Germany), 118-123.

98. Ulzama, S.; Specht, E.: Modeling the reaction mechanism of lumped porous coke particles during industrial processes: Indian Chemical Engineering Congress 14 - 17 December 2005, New Dehli.
99. Krol, J.; Specht, E.: Atomized Spray Quenching as Alternative Technique for Reduction of Distortion and Stresses. 12th Int. Metallurgy-Materials Congress and Fair, 28.09. - 02.10.2005, Istanbul (Turkey) ISBN: 9944-89-073-1 (2006).
100. Kaymak, Y.; Brzoza, M.; Specht, E.: Simulation of the Distortion and Microstructure Distribution in Steel Work-Pieces during Cooling by Finite Element Method. 12th Int. Metallurgy-Materials Congress and Fair, 28.09. - 02.10.2005, Istanbul (Turkey) ISBN: 9944-89-073-1 (2006).
101. Brzoza, M.; Kaymak, Y.; Specht, E.: Minimizing Stress and Equalizing Hardness by Controlled Quenching. 12th Int. Metallurgy-Materials Congress and Fair, 28.09. - 02.10.2005, Istanbul (Turkey) ISBN: 9944-89-073-1 (2006).
102. Brzoza, M.; Specht, E.; Ohland, J.; Belkessam, O.; Lübben, T.; Fritsching, U.: Minimizing Stress and Distortion for Shafts and Discs by Controlled Quenching in a Field of Nozzles. *Materials Science and Engineering Technology* 37 (2006), 97-102.
103. Liu, X.; Specht, E.; Guerra Gonzales, O.; Walzel, P.: Analytical solution of the rolling - mode granular motion in rotary kilns. *Chemical Engineering and Processing* 45 (2006) 515-521.
104. Ulzama, S.; Specht, E.: Kinetic analysis of Boudouard reaction and its dependence on porous structure. The American Institute of Chemical Engineers (AIChE) Orlando, USA, April 23 - 27, 2006. TB 002
105. Chmielowski, M.; Specht, E.: Modelling of Heat Transfer by the Transport Rollers in Kilns. *Applied Thermal Engineering* (7) 26 (2006), 736-744.
106. Liu, X.; Specht, E.: Mean residence time and hold-up of solids in rotary kilns. *Chemical Engineering Science*, 61 (2006) 5176-5181.
107. Nirmolo, A.; Woche, H.; Specht, E.: Auslegungskriterien zur Temperaturvergleichmäßigung in Brennkammern mit radialer Lufteindüsung. *Gaswärme int.* 55 (2006) 338 - 341
108. Ulzama, S.; Specht, E.: An analytical study of droplet combustion under microgravity: quasi-steady transient approach 31st International Symposium on Combustion. 06-11 August 2006 in Heidelberg (Germany). *Proceedings of the Combustion Institute*, 2301-2308.
109. Kaymak, Y.; Specht, E.; Bertram, A.: Reduction of residual stresses and distortion by controlled quenching. 15th Int. Federation for Heat Treatment and Surface Engineering, 25.-29. Sept. 2006, Vienna/Austria, 403-408 (ISBN 3-90138-19-7).
110. Cheng, C.; Specht, E.: Reaction rate coefficients in decomposition of lumpy limestone of different origin. *Thermochimi Acta* 449 (2006) 8-15.
111. Holzapfel, K.-U.; Specht, E.: Heat transfer between a rotating cylinder and a transported plate. *Int. Journal Experimental Heat Transfer*, 19 (2006) 39-51.
112. Junge, K.; Tretau, A.; Specht, E.: Energy expenditure for drying of green bricks in chamber dryers. *Ziegeljahrbuch* 2007, 25-38.
113. Pietzsch, R.; Brzoza, M.; Kaymak, Y.; Specht, E.; Bertram, A.: Simulation of the Distortion of Long Steel Profiles Durir Cooling. *Journal of Applied Mechanics*, Vol. 74 (2007) 427-437.
114. Cheng, C.; Specht, E.; Kehse, G.: Influence of origin and material property of limestone upon its decomposition behaviour in shaft kilns. *Cement, Lime, Gypsum* 60 (2007) No. 1, 51-61.
115. Woche, H.; Specht, E.; Schmidt, J.: Wärmeübergang im Einlaufbereich von Rohren *Kälte, Luft, Klimatechnik* 1/2 (2007), 37-41.
116. Bes, A.; Specht, E.; Kehse, G.: Calculation of the cooling zone length and the discharge temperature of lime shaft kiln *Cement, Lime, Gypsum* 60 (2007) No. 4, 63-73.
117. Specht, E.; Krol, J.: Enhancement and defined regulation of metal quenching using atomized sprays: *Proceedings of the European Metallurgical Conference*, June 11 - 14 (2007), Düsseldorf, Germany, 1917-1928.
118. Specht, E.: Lehrstuhl Thermodynamik und Verbrennung an der Otto-von-Guericke-Universität Magdeburg. *Gas Wärm International* 56 (2007) No 4, 311-315
119. Bleiker, G.; Specht, E.: Film Evaporation of Drops with Different Shape above a Horizontal Plate. *International Journal of Thermal Science*. 46 (2007) 835-841
120. Nirmolo, A.; Woche, H.; Specht, E.; R. Praetor: Gas mixing in cylindrical chambers after radial jets injection. *Progress Computational Fluid Dynamics* 7 (2007) 447-456.
121. Specht, E.; Sahoo, R.: Analytisches Modell zur Simulation der Verbrennung der Flüchtigen von festen Brennstoffen u deren Einfluss auf die Erwärmung. 23. Deutscher Flammentag, VDI Berichte 1988 (2007), 285-291.
122. Kaymak, Y.; Specht, E.: Strategies for controlled quenching to reduce stresses and distortion. *Heat Processing* 5 (2007) 232-235.
123. Specht, E.: Einfluss der Rollen auf die Wärmeübertragung in Industrieöfen bei plattenförmigen Körpern. *Fortschrittsberichte der Deutschen Keramischen Gesellschaft Band 21* (2007) Heft 1, 91-97.

124. Bes, A.; Specht, E.; Kehse, G.: Influence of the kind of fuel on the energy consumption in lime burning. *Cement, Lime Gypsum* 60 (2007), 9, 84-93.
125. Junge, K.; Tretau, A.; Specht, E.: Trocknung von Ziegelrohlingen: Stoffliche Grundlagen, Kinetik, Energetik. *Ziegeljahrbuch*, Bau Verlag 2008, 28-71.
126. Agustini, S.; Queck, A.; Specht, E.: Modeling of the Regenerative Heat Flow of the Wall in Direct Fired Rotary Kilns. *Heat Transfer Engineering*, 29 (2008) 1, 57-66.
127. Nirmolo, A.; Woche, H.; Specht, E.: Temperature Homogenisation of reactive and non-reactive Flows after Radial Jet Injections in confined cross-flow. *Engineering Applications of Computational Fluid Mechanics* 2 (2008) 1, 85-94.
128. Nirmolo, A.; Woche, H.; Specht, E.; Skroch, R.: Mixing of jets in cross flow after double rows of radial injections *Chemical Engineering and Technology* 31 (2008) 2, 294-300.
129. Telljohann, U.; Junge, K.; Specht, E.: Moisture conduction coefficient for modeling the first and second drying section green bricks. *Drying Technology* 26 (2008) 7, 855-863.
130. Nallathambi, A. K.; Kaymak, Y.; Specht, E.; Bertram, A.: Distortion and Residual Stresses during Metal Quenching Processes. *Micro-Macro-Interactions*. Springer Verlag (2008), 145-158.
131. Nallathambi, A.K.; Alam, U.; Specht, E.: Heat flux estimation in direct chill casting using experimental and inverse finite element method. *Proceedings of ASME 2008 Summer Heat Transfer Conference*, August 10-14, Jacksonville, Florida USA, 2008, HT 2008-56500, pp. 685-691. ISBN 978-0-7918-4847-0
132. Alam, U.; Krol, J.; Specht, E.; Schmidt, J.: Enhancement and local regulation of metal quenching using atomized sprays. *Journal of ASTM International* Vol. 5, No. 10 (2008). Paper ID JAI 101805.
133. Nallathambi, A.K.; Specht, E.: Estimation of heat flux in array of jets quenching using experimental and inverse finite element method. *Journal of Materials Processing Technology*, 209 (2009) 5325-5332.
134. Nallathambi, A. K.; Kaymak, Y.; Specht, E.; Bertram, A.: Optimum strategies to reduce residual stresses and distortion during metal quenching process. *Journal of ASTM International* 6 (4), (2009). Paper ID JAI 101806
135. Liu, X.; Zhang, J.; Specht, E.; Shi, Y.; Herz, F.: Analytical solution for the axial solids transport in rotary kilns. *Chemical Engineering Science* 64 (2009) 2, 428-431.
136. Specht, E.; Lorenz, N.: Werkstoffe für den Kanalbau - Wieviel CO₂ muss sein? 23. Oldenburger Rohrleitungsforum 5./ Februar, Vulkan Verlag, 2009, 132-144.
137. Herz, F.; Sonavane, Y.; Specht, E.; Bensmann S.; Walzel, P.: Mixing Behaviour of Granular Material in the Agitated Bed of Rotating Drums. *Bulk Solids and Powder-Science and Technology* 4 (2009), 109-116.
138. Herz, F.; Sonavane, Y.; Specht, E.; Bensmann, S.; Walzel, P.: Dispersion Coefficients for the Mass and Heat Transport of Granular Material in the Agitated Bed of Rotating Drums. *Proceedings of 8th International Conference on Measurement and Control of Granular Materials (MCGM)*, Shenyang, China, 27-29 Aug. 2009, 21-27. ISBN 978-7-81102-737-2
139. Liu, X.Y.; Herz, F.; Specht, E.; Bensmann, S.; Gonzales, O.G.; Walzel, P.: Modeling the Transversal Motion of Granular Materials in Rotary Drums. *Proceedings of 8th International Conference on Measurement and Control of Granular Materials (MCGM)*, Shenyang, China, 27-29 Aug. 2009, 87-90. ISBN 978-7-81102-737-2
140. Liu, X.Y.; Zhou, S.J.; Specht, E.: Image-based Measurement of the Surface Profile of the Cascading Granular Material in Rotating Cylinders. *Proceedings of 8th International Conference on Measurement and Control of Granular Materials (MCGM)*, Shenyang, China, 27-29 Aug. 2009, 37-39. ISBN 978-7-81102-737-2
141. Attalla, M.; Specht, E.: Heat Transfer Characteristics from in-line Arrays of Free Impinging Jets. *Heat and Mass Transfer* 45 (2009) 5, 537-543.
142. Xu, Z.; Woche, H.; Specht, E.: CFD flow simulation of structured packed bed reactors with jet injections. *Conference on Modelling fluid Flow (CMFF'09)*, the 14th International Conference on Fluid Flow Technologies, Budapest, Hungary, September 9-12, 2009, 518-524. ISBN 978-963-420-987-4.
143. Xu, Z.; Woche, H.; Specht, E.: Development of a scalable 3D geometric model for CFD flow simulation of shaft kilns. *ExHFT-7*, 28 June - 03 July 2009, Krakow, Poland, 655-662. ISBN 978-837464-235-4.
144. Nallathambi, A.K.; Kaymak, Y.; Specht, E.; Bertram, A.: Distortion prediction during atomized spray and array of jets quenching. *Proceedings of 18th International Conference on Computer Methods in Mechanics*, 18-21 May 2009, Zielona Góra, Poland. ISBN 978-83-7481-245-0
145. Nallathambi, A.K.; Specht, E.; Bertram, A.: Finite Element Technique for Phase-Change Heat Conduction Problem. *Proceedings of ASME Summer Heat Transfer Conference*, July 19-23, 2009, San Francisco, California, USA. ISBN 978-0-7918-3851-8
146. Nallathambi, A.K.; Kaymak, Y.; Specht, E.; Bertram, A.: Influence of Material Properties on Distortion and Residual Stresses during Metal Quenching Processes. *Proceedings of International Conference on Computational Methods for*

- Coupled Problems in Science and Engineering, 2009. Ischia Island Italy, 08.-10. June 2009. ISBN 978-84-96736-65-8
147. Sonavane, Y.; Specht, E.: Study of temperature profile in the agitated bed of pilot scale externally heated rotary kiln. Proceedings of AICHE Spring Meeting, Tampa (Florida), 26.-30. April 2009. ISBN 978-0-8169-1052-6
 148. Nallathambi, A.K.; Specht, E.; Bertram, A.: Computational aspects of temperature based finite element technique for phase-change heat conduction problem. Computational Materials Science 47 (2009), 332-341.
 149. Silva, M.; Specht, E.; Schmidt, J.; Al-Karawi, J.: Influence of the sintering compression of metallurgic powder steel on the thermal properties up to 1000 °C. 30th International Thermal Conductivity Conference and 18th International Thermal Expansion Symposium, August 29- September 2, 2009, Pittsburgh, USA.
 150. Abd Alrahman, K.; Alam, U.; Nallathambi, A.; Specht, E.: Aluminium quenching by array of water jets. 6th Mediterranean Conference Heat Treatment and Surface Engineering, 1-3. Dec. 2009, Sharm El-Sheikh, Egypt.
 151. Silva, M.; Specht, E.; Schmidt, J.: Importance of the origin of limestone on the thermophysical properties influencing the calcination process. Proceedings of 30th International Thermal Conductivity Conference and 18th International Thermal Expansion Symposium, August 29- September 2, 2009, Pittsburgh, USA, 496-505. (ISBN 978-1-60595-015-0)
 152. Silva, M.; Specht, E.; Schmidt, J., Bauer W.: Comparative evaluation of the thermal conductivity for selected materials measured with a laser flash apparatus and other techniques. Proceedings of 30th International Thermal Conductivity Conference and 18th International Thermal Expansion Symposium, August 29- September 2, 2009, Pittsburgh, USA, 480-488. (ISBN 978-1-60595-015-0)
 153. Silva, M.; Specht, E.; Schmidt, J.; Al-Karawi, J.: Influence of the origin of limestone on its decomposition temperature and on the specific heat capacity and conductivity of lime. High Temperature-High Pressure 38 (2010), 361-378.
 154. Shi, Y.; Woche, H.; Specht, E.; Knabbe, J.; Sprinz, U.: Experimental investigation of solid bed depth at the discharge end of rotary kilns. Powder Technology, 197 (2010) 17-24.
 155. Silva, M.; Specht, E.; Schmidt, J.: Thermophysical properties of limestone as a function of origin. Part 1: specific heat capacities. Cement Lime Gypsum No 2 (2010) 55-62.
 156. Silva, M.; Specht, E.; Schmidt, J.: Thermophysical properties of limestone as a function of origin. Part 2: Calcination enthalpy and equilibrium temperature. Cement Lime Gypsum Int. (2010) No 6, 51-57.
 157. Liu, X.Y.; Specht, E.: Temperature distribution within the moving bed of rotary kilns: Measurement and analysis. Chemical Engineering & Processing 49, (2010), 147-150.
 158. Liu, X.Y.; Specht, E.: Predicting the fraction of the mixing zone of a rolling bed in rotary kilns. Chemical Engineering Science 65 (2010), 3059-3063.
 159. Liu, X.Y.; Zhou, S.J.; Specht, E.: Avalanche Time of Granular Flows in Rotary Kilns. Chemical Engineering & Technology 33 (2010), 1029-1033.
 160. Specht, E.; Lorenz, N.: Energieinhalte und CO₂-Emissionen bei der Produktion von Rohren - Vergleich Beton mit anderen Werkstoffen. Betonwerk und Fertigkeitsstechnik 2 (2010), Proceedings 54. Beton Tag 09.-11. Febr. 2010, Neu Ulm, 170-171.
 161. Nallathambi, A.K.; Kaymak, Y.; Specht, E.; Bertram, A.: Sensitivity of material properties on distortion and residual stresses during metal quenching processes. Journal of Materials Processing Technology 210 (2010), 204-211.
 162. Alam, U.; Abd Alrahman, K.; Specht, E.: Experimental Investigation of Influence of Dissolved Salts and Surfactant on Heat Transfer in Atomized spray Quenching of Metal. Proceedings of the 14th International Heat Transfer Conference (IHTC14-22873), August 8-13, 2010, Washington, DC, USA.
 163. Abd Alrahman, K.; Alam, U.; Specht, E.: Wetting Front Tracking during Metal Quenching using Array of Jets: Proceedings of the 14th International Heat Transfer Conference (IHTC14-22080), August 8-13, 2010, Washington, DC USA.
 164. Herz, F.; Specht, E.: Analysis of local heat transfer in direct fired rotary kilns. Proceedings of the 14th International Heat Transfer Conference (IHTC14-22086), August 8-13, 2010, Washington, DC, USA.
 165. Glüge, R.; Bertram, A.; Böhlke, T.; Specht, E.: A Pseudoelastic Model for Mechanical Twinning on the Microscale. Zeitschrift für Angewandte Mathematik und Mechanik (2010), 1-30.
 166. Specht, E.; U. Alam, K.H.H. Abdalrahman.: Influence of Quality of Water on the Heat Transfer in Secondary Cooling Zone during Continuous Casting. Proceedings of DGM 15-17 November 2010, Ulm, 33-38.
 167. Danninger, H.; Gierl, C.; Silva Gonzalez, M.; Schmidt, J.; Specht, E.: Thermal expansion and thermal conductivity of sintered steels - the real effect of the porosity. Vortrag: PowderMet 2010, Ft. Lauderdale FL; 27.06.2010 - 30.06.2010 in: Preprints, Metal Powder Industries Federation, Princeton NJ (2010), 11 S. ISBN: 978-0-9819496-4-2
 168. Gierl, C.; Danninger, H.; Silva Gonzalez, M.; Schmidt, J.; Specht, E.: Thermophysical properties of sintered steels - effect of porosity and composition. Vortrag: PM2010 Powder Metallurgy World Congress & Exhibition, Florence; 10.10.2010 - 14.10.2010; in: Proceedings PM2010 Volume 5, European Powder Metallurgy Association, Shrewsbury (2010), ISBN: 9781899072149; 41-5

169. Nallathambi, A.K.; Tyagi, M.; Specht, E.; Bertram, A.: Thermomechanical analysis of direct chill casting using finite element method. Transactions of the Indian Institute of Metals, Vol. 64, Issues 1, 2 2011, 13-19.
170. Specht, E.; Meng, P.; Tretau, A.; Rimpel, E.: Der Gegenlauf-Tunnelofen als zukünftiges Konzept zum energiearmen Brennen keramischer Produkte. Keramische Zeitschrift 02 (2011) 98-102.
171. Specht, E.; Meng, P.; Tretau, A.; Rimpel, E.: The Solid-Solid Recuperator Tunnel Kiln as a Future Concept for Energy Reduced Firing of Ceramic Products. Interceram 2011, 125-129.
172. Shi, Y.; Specht, E.; Herz, F.; Knabbe, J.; Sprinz, U.: Experimental investigation of the axial discharging velocity of particles from rotary kilns. Granular Matter 13 (2011) 465-473.
173. Hai Do, D.; Specht, E.: Numerical Simulation of Heat and Mass Transfer of Limestone Decomposition in Normal Shaft Kiln. Proceedings of the ASME/JSME 2011 8th, Thermal Engineering Joint Conference (AJTEC2011), March 13-17, 2011, Honolulu, Hawaii, USA.
174. Hai Do, D.; Specht, E.; Kehse, G.: Simulation of lime calcination in PFR kiln - Influence of energy input and lime throughput. Cement Lime Gypsum (ZKG) 12 (2011), 52-64.
175. Sunkara, R.K.; Herz, F.; Specht, E.: Thermal fluctuations and heat transfer measurements in an externally heated tor cylinder. Proceedings of the ASME/JSME 8th thermal Engineering Joint Conference (AJTEC2011-44573), March 13-17, 2011, Honolulu, Hawaii, USA.
176. Specht, E.; Meng, P.; Tretau, A.; Rimpel, E.: The solid-solid recuperator - a forced-convection tunnel kiln for higher energy efficiency. Brick and Tile Industry International (2011) 10-21.
177. Hai Do, D.; Specht, E.: Determination of Reaction Coefficient, Thermal Conductivity and Pore Diffusivity in Decomposition of Limestone of different Origin. Proceeding of The World Congress on Engineering and Computer Science, Section of Chemical Engineering WCECE 2011 (ISBN-978-988-18210-9-6), San Francisco USA 2011, Vol. 2 pp.617-622.
178. Nallathambi, A.K.; Tyagi, M.; Specht, E.; Bertram, A.: Thermomechanical Analysis of Direct Chill Casting using Finite Element Method. Transactions of the Indian Institute of Metals, Vol. 64, Issues 1 & 2, February-April 2011, 13-19.
179. Specht, E.; Woche, H.; Hallak, B.: Zünd- und Abbrandverhalten stückiger Kokse und Anthrazite unter Schachtofenbedingungen. VDI-Berichte 2119 (25. Deutscher Flammentag), 95-100.
180. Becker, F.; Specht, E.: Thermischer Apparatebau und Industrieöfen. Dubbel 23. Auflage, 2011, Springer Verlag.
181. Sandaka, G.; Nallathambi, A.K.; Specht, E.: Finite Element Analysis of Reaction Front Tracking in lime Calcination. ASME/JSME 2011 8th Thermal Engineering Joint conference (AJTEC2011), March 13-17, 2011, Honolulu, Hawaii, USA. Paper No.: AJTEC2011-44572 pp. T10130-T10130-6.
182. Sandaka, G.; Specht, E.: Modeling and Experiments of Lime Calcination. ECCOMAS Special Interest Conference, Numerical Heat Transfer 2012, 4-6 September 2012, Gliwice-Wroclaw, Poland, 567-573.
183. Meng, P.; Specht, E.; Tretau, A.; Rimpel, E.: The solid-solid-recuperator tunnel kiln for energy conserving firing of faci bricks and roof tiles. Annual for the Brick and Tile, Structural Ceramics and Clay Pipe Industries 2012, 89-100. (Bauverlag)
184. Hofmann, I.; Tretau, A., Specht, E.: Actuating variables for the tensile strength of drying brick green bodies. Annual for the Brick and Tile, Structural Ceramics and Clay Pipe Industries 2012, 74-88. (Bauverlag).
185. Hai Do, D.; Specht, E.; Kehse, G.; Ferri, V.; Christiansen, T. L.; Bresciani, P.: Simulation of lime calcination in PFR kiln Influence of source and size of limestone. Int. Journal of Cement Lime Gypsum, 4 (2012) 56-65.
186. Lorenz, N.; Specht, E.: Vereinfachtes Modell zur Berechnung der Gasstrahlung in der Atmosphäre. Gaswärme international 2012 (3) 46-52.
187. Hai Do, D.; Specht, E.; Kehse, G.; Schmidt, O.; Frank, S.: Comparisons of simulated and measured temperature profiles in PFR and RCE kilns. Int. Journal of Cement Lime Gypsum, 7 (2012) 64-72.
188. Sunkara, K.R.; Herz, F.; Specht, E.; Mellmann, J.: Theoretical and experimental analysis of the optimal surface area of the cascading particles in a flighted rotating drum. Proceedings of the 5th Asian Particle Technology Symposium (APT 2012), July 2-5, 2012, Singapore
189. Herz, F.; Mitov, I.; Specht, E.; Stanev, R.: Influence of operational parameters and material properties on the contact heat transfer in rotary kilns. The International Journal of Heat and Mass Transfer 55 (2012) 7941-7948.
190. Herz, F.; Mitov, I.; Specht, E.; Stanev, R.: Experimental study of the contact heat transfer coefficient between the covered wall and solid bed in rotary drums. Chemical Engineering Science 82 (2012) 312-318.
191. Sefrin, P.; Specht, E.; Wüst, W.; Shutova, N.; Holtmann, M.: Wärmeprotektion bei Notfallpatienten - Stellenwert der Rettungsdecke. Notarzt 28 (2012) 162-164.
192. Hai Do, D.; Specht, E.: Measurement and Simulation of Lime Calcination in Normal Shaft Kiln. Journal of ASTM International 2012. Materials Performance and Characterization 1 No. 1 (2012) 1-14.
193. Sunkara, K.R.; Herz, F.; Specht, E.; Mellmann, J.: Influence of flight cascading rate on the particle distribution in a flighted rotary drum. Proceedings of the 24th International Mineral Processing Congress (IMPC 2012), September 24-

- 28, 2012, New Delhi, India, Paper 949, ISBN 81-901714-3-7.
194. Sunkara, K.R.; Herz, F.; Specht, E.; Mellmann, J.: A study on the influencing parameters of the particle motion in a flighted rotary drum. Proceedings of the 7th International Conference for Conveying and Handling of Particulate Solids (CHoPS 2012), September 10-13, 2012, Friedrichshafen, Germany.
 195. Lorenz, N.; Specht, E.: Vergleich der kumulativen spezifischen CO₂-Emissionen von Steinzeug mit anderen Werkstoffen am Beispiel der Herstellung von Abwasserrohren. Keramische Zeitschrift 01/2012, Technologie-Forum, 4 44.
 196. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.; Bertram, A.: Mechanical behavior of mushy zone in DC casting using viscoplastic material model. Technische Mechanik, Volume 32, Issue 2, 2012, 342-357.
 197. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.: Modeling solidification microstructure of steel in Twin-Belt Caster. AIST Steel properties and Applications Conference Proceedings - Combined with MS and T'12, Materials Science and Technology 2012, 575-583.
 198. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.: Numerical study of heat transfer and solidification in twin-belt caster Numerical Heat Transfer 2012 International Conference (NHT2012), Wroclaw, Poland, 4-6 September 2012.
 199. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.; Bertram, A.: Modeling of Thermal Stresses in Continuous Casting of Steel Alloys. International Congress on Computational Mechanics and Simulation (ICCMS), IIT Hyderabad, 10-12 December 2012.
 200. Sunkara, R.K.; Herz, F.; Specht, E.; Mellmann, J.; Erpelding, R.: Modeling the discharge characteristics of rectangular flights in a flighted rotary drum. Powder Technology 234 (2013) 107-116.
 201. Sunkara, R.K.; Herz, F.; Specht, E.; Mellmann, J.: Influence of flight design on the particle distribution of a flighted rotating drum. Chemical Engineering Science 90 (2013) 101-109.
 202. Specht, E.; Herz, F.: Sustainability of concrete and reinforced concrete pipes - A comparison of the life cycles of various materials. BFT international 79 (2013) 183-185.
 203. Herz, F.; Specht, E.: Nachhaltigkeit von Beton- und Stahlbetonrohren- Ökobilanzieller werkstoffvergleich. Proceedings zum 27. Oldenburger Rohrleitungsforum 2013, Vulkan Verlag, 194-203. (ISBN 978-3-8027-2777-1)
 204. Herz, F.; Specht, E.: Nachhaltigkeit von Beton-Vergleich mit anderen Werkstoffen am Beispiel von Abwasserrohren. BWI-Betonwerk International 2013, 208-213.
 205. Herz, F.; Specht, E.; Stanev, R.: The simulation of the quartz sand calcination in rotary kilns. Proceedings of the 15th Balkan Mineral Processing Congress (BMPC 2013), June 12-16, 2013, Sozopol, Bulgaria (ISBN 978-954-353-217-9).
 206. Herz, F.; Nafsun, A.I.; Specht, E.; Scherer, V.; Stanev, R.: Experimental analysis of the contact heat transfer in rotary kilns. Proceedings of the 8th World conference on Experimental Heat Transfer, Fluid Dynamics and Thermodynamics, June 16-20, 2013, Lisboa, Portugal (ISBN 978-972-8620-23-3).
 207. Jiang, P.; Wang, Q.; Sabariman; Specht, E.: Experimental Study of Heat Transfer of Pressurized Spray Cooling on the Heated Plate by Using 45° Full cone Nozzles. Applied Mechanics and Materials Vol. 535 (2014), 32-36.
 208. Herz, F.; Mitov, I.; Specht, E.; Stanev, R.: Influence of the motion behavior on the contact heat transfer between the covered wall and solid bed in rotary kilns. Experimental Heat Transfer. Accepted 09/2013.
 209. Specht, E.: Impinging Jet Drying. Modern Drying Technology: Volume 5 Process Intensification. Edited by E. Tsotsas and A.S. Mujumdar. Wiley-VCH (2014), 1-25.
 210. Nafsun, A.I.; Herz, F.; Specht, E.; Scherer, V.; Wirtz, S.; Komossa, H.: The contact heat transfer in rotary drums in dependence on the particle size ratio. International Heat Transfer Conference, August 10-15, 2014, Kyoto, Japan.
 211. Nafsun, A.I.; Herz, F.; Specht, E.; Scherer, V.; Wirtz, S.: The contact heat transfer in rotary kilns and the effect of material properties. International conference on Heat Transfer, Fluid Mechanics and Thermodynamics, July 06-09, 2014, Orlando, Florida, USA.
 212. Nafsun, A.I.; Herz, F.; Specht, E.: Analysis of heat penetration into the solid bed of rotary drums. International conference on Simulation and Experiments in Heat Transfer and its Applications, July 02-04, 2014, A Coruna, Spain.
 213. Becker, F.; Specht, E.: Thermischer Apparatebau und Industrieöfen. Dubbel 24. Auflage, 2014, Springer Verlag.
 214. Komossa, H.; Wirtz, S.; Scherer, V.; Herz, F.; Specht, E.: Transversal bed motion in rotating drums using spherical particles: comparison of experiments with DEM simulations. Powder Technology.
 215. Stanev, R.; Mitov, I.; Specht, E.; Herz, F.: Geometrical characteristics of the solid bed in a rotary kiln. Journal of Chemical Technology and Metallurgy, 49, 1, 2014, 82-89,
 216. Stanev, R.; Mitov, I.; Specht, E.; Herz, F.: Geometrical characteristics of the solid bed in a rotary kiln. Journal of Chemical Technology and Metallurgy.
 217. Specht, E.; Sabariman: Einfluss der Wasserqualität auf den Wärmeübergang bei der Kühlung heißer Metalle. Gaswärme International 5, 2014, 77-82.
 218. Herz, F.; Specht, E.: Comparative life cycle assessment of various pipe materials. BFT International 5, 2014, 48-54.
 219. Yu, J.L.; Redemann, T.; Specht, E.: Modeling for Prediction of Porcelain Products Temperature Profiles in a Tunnel K

Advanced Materials Research 968, 2014, 151-155.

220. Elattar, M.E.; Stanev, R.; Specht, E.; Fouda, A.: CFD Simulations of Confined Non-Premixed Jet flame in Rotary Kilns for Gaseous Fuels. *Computers and Fluids International Journal*, 102, 2014, 62-73.
221. Sabariman, Specht, E.: Heat Transfer in Spray Quenching of Hot Metals. *Heat Processing* 4, 2014, 45-51.
222. Hallak, B.; Herz, F.; Specht, E.; Kehse, G.: Energy Consumption and CO₂ Content in the Flue Gas of Normal Shaft Kilns: Part 1: Influence of the Excess Air Number. *Cement, Lime, Gypsum*, 11, 2014, 60-66.
223. Hallak, B.; Herz, F.; Specht, E.; Kehse, G.: Energy Consumption and CO₂ Content in the Flue Gas of Normal Shaft Kilns: Part 2: Influence of the Limestone Quality and the Process Parameter. *Cement, Lime, Gypsum*, 12, 2014, 38-47.
224. Komossa, H.; Höhner, D.; Wirtz, S.; Scherer, V.; Specht, E.; Herz, F.: Berechnung der Systemantworten von Drehrohren mit der Diskreten Elemente Methode als Basis für Modellansätze der instationären Prozesssimulation im Kontext der Biomasseaufbereitung. *DGMK-Fachbereichstagung*, 12.-14.05.2014, Rotenberg, S. 171-178, 2014. (ISBN 978-3-9411721-43-2)

2015

225. Herz, F.; Mitov, I.; Specht, E.; Stanev, R.: Influence of the motion behavior on the contact heat transfer between the covered wall and solid bed in rotary kilns. *Experimental Heat Transfer* 28 (2015) 174-188.
226. Zhao, P.; Sabariman; Specht, E.; Song, X.: Influence of Jet Velocities and Material Properties in Quenching of Metal with Array of Jets. *Advanced Materials Research Vol. 1090* (2015) 63-68.
227. Sunkara, K.; Herz, F.; Specht, E.; Mellmann, J.: Transverse flow at the flight surface in flighted rotary drum. *Powder Technology* 275 (2015), 161-171.
228. Herz, F.; Hallak, B.; Specht, E.: Experimental study of the combustion of lumpy coke and anthracite particles. 10th European conference on Industrial Furnaces and Boilers (INFUB). Gaia (Porto) – Portugal, 07.-10.04.2015. (ISBN: 972-99309-7-3)
229. Herz, F.; Hallak, B.; Specht, E.; Gröpler R.; Warnecke, G.: Simulation of the limestone calcination in normal shaft kilns 10th European conference on Industrial Furnaces and Boilers (INFUB). Gaia (Porto) – Portugal, 07.-10.04.2015. (ISBN 978-972-99309-7-3)
230. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.; Urlau, U.; Unifantowicz, P.: Theoretical estimation of solidification length of continuously cast metals. *Applied Thermal Engineering* 84 (2015) 286-291.
231. Redemann, T.; Specht, E.; Rimpel, E.: Limitations of the use of circulation systems and their influence on the temperature and velocity profile in tunnel kilns. *Ziegelindustrie* 4 (2015) 35-41.
232. Refaey, H.A.; Specht, E.; Salem, M.R.: Influence of Fuel Distribution and Heat Transfer on Energy consumption in tunnel Kilns. *International Journal of Advances in Engineering & Technology*, 8 (2015), 281-293. (ISSN: 22311963).
233. Specht, E.; Sauerhering, J.; Schmidt, J.: Abwärmennutzung von Industrieöfen zur Strom- und Kälteerzeugung. *Gaswärme international* 4 (2015) 49-55.
234. Specht, E.; Sauerhering, J.; Schmidt, J.: Using waste heat for electricity generation and cooling. *Heat processing* 3 (2015) 113-119.
235. Hallak, B.; Specht, E.; Herz, F.; Gröpler, R.; Warnecke, G.: Simulation of lime calcination in Normal Shaft Kilns – Mathematical Model. *Int. Journal of Cement Lime Gypsum* 9 (2015) 66-71.
236. Hallak, B.; Specht, E.; Herz, F.; Gröpler, R.; Warnecke, G.: Simulation of lime calcination in Normal Shaft Kilns – Influence of process parameters. *Int. Journal of Cement Lime Gypsum* 10 (2015) 46-50.
237. Specht, E.; Mohammadpour, K.; Alkhalaf, A.: Ermittlung der Flammenlänge von gasförmigen Brennstoffen in Schachtöfen. *VDI-Berichte Nr. 267*, 2015. VDI Verlag GmbH Düsseldorf, 291-299. (ISBN 978-3-18-092267-6)
238. Karali, M. A.; Sunkara, K.R.; Herz, F.; Specht, E.: Experimental analysis of a flighted rotary drum to assess the optimum loading. *Chemical Engineering Science* 138 (2015) 772-779.
239. Nafsun, A.I.; Herz, F.; Specht, E.; Komossa, H.; Wirtz, S.; Scherer, V.: Experimental Investigation of Thermal Bed Mixing in Rotary Drums. 11th International conference on Heat Transfer, Fluid Mechanics and Thermodynamics. (ISBN 643-648)
240. Komossa, H.; Wirtz, S.; Scherer, V.; Herz, F.; Specht, E.: DEM Investigation of Transversal Mixing and Temperature Evolution in Rotary Drums. 11th International conference on Heat Transfer, Fluid Mechanics and Thermodynamics. (ISBN: 743-748)
241. Komossa, H.; Wirtz, S.; Scherer, V.; Herz, F.; Specht, E.: Heat transfer in indirect heated rotary drums filled with monodisperse spheres: Comparison of experiments with DEM simulations. *Powder Technology* 286 (2015) 722-731.

242. Komossa, H.; Wirtz, S.; Scherer, V.; Herz, F.; Specht, E.: Analysis of the Particle Velocity in the Solid Bed of Rotary Drums. The 8th International Conference for Conveying and handling of Particulate Solids, Tel-Aviv, Israel, Mai 2015.
243. Herz, F.; Sunkara, SK.R.; Specht, E.; Mellmann, J.: Discharge Characteristics in Flighted Rotary Drums. The 8th International Conference for Conveying and handling of Particulate Solids, Tel-Aviv, Israel, Mai 2015

2016

244. Nafsun, A.I.; Herz, F.; Specht, E.; Scherer, V.; Wirtz, S.: Heat Transfer Experiments in a Rotary Drum for a Variety of Granular Materials. *Experimental Heat Transfer*. 29 (2016) 520-535.
245. Elattar, H.; Specht, E.; Foud, A. Bin-Mahfouz, A.S.: Study of Parameters Influencing Fluid Flow and Wall Hot Spots in Rotary Kilns using CFD. *The Canadian Journal of Chemical Engineering* Vol. 94 (2016) Feb., 335-367.
246. Specht, E.; Redemann, T. Lorenz, N.: Simplified mathematical model for calculating global warming through anthropogenic CO₂. *International Journal of Thermal Science* (2016), pp. 1-8.
247. Elattar, H. F.; Specht, E.; Fouda, A.; Bin-Mahfouz, A.S.: CFD modeling using PDF approach for investigating the flame length in rotary kilns. *Heat and Mass Transfer* (2016) online 16.02.2016.
248. Hallak, B.; Herz, F.; Specht, E.; Gröpler, R., Warnecke, G.: Simulation of limestone calcination in normal shaft kilns – Part 3: Influence of particle size distribution and type of limestone. *Int. Journal of Cement Lime Gypsum* 3 (2016), 64-71.
249. Attalla, M.; Maghrabie, H.M., Specht, E.: An experimental investigation on fluid flow and heat transfer of rough mini-channel with rectangular cross section. *Experimental Thermal and Fluid Science* 75 (2016) 199-210.
250. Herz, F.; Specht, E.: Simulation thermischer Prozesse in direkt beheizten Drehrohröfen - Teil 1 Modellentwicklung. *Gas Wärme International* 3 (2016) 37-45.
251. Herz, F.; Specht, E.: Simulation thermischer Prozesse in direkt beheizten Drehrohröfen – Teil 2 Modellentwicklung. *Gas Wärme international* 3 (2016)
252. Herz, F.; Specht, E.: Simulation thermischer Prozesse in direkt beheizten Drehrohröfen – Teil 3 Prozessoptimierung. *Gas Wärme international* 3 (2016)
253. Redemann, T.; Specht, E.: Analytical Approach to Calculate the Heat Fluxes in the Atmosphere and to Quantify the Sensitivity of Earth Temperature due to CO₂ and H₂O. *Journal of Ecosystem & Ecography* 2016. Special Issue: Global Climate Change. ISSN:2157-7625 JEE
254. Liu, X.; Specht, E.: A simplified model to calculate the power draw for material movement in industrial rotary kilns. *Powder Technology*.
255. Moldenhauer, A.; Bauer, W.; Specht, E.; Herz, F.: Thermophysical properties of lime as a function of origin (Part 3): Emissivity: *Cement Lime Gypsum* (2016)
256. Silva, M.; Sandaka, G.; Specht, E.; Al-Karawi, J.: Thermophysical properties of lime as a function of origin (Part 4): Conductivity: *Cement Lime Gypsum* (2016)
257. Alkhalaf, A.; Specht, E.: Prediction of cross flow mixing in the structured packed bed through CFD simulation using (FB and PMM) and validation with experiments. *Taylor & Francis, Engineering Applications of Computational Fluid Mechanics* 2016, 1-14. ISSN: 1994-2060 (Print), ISSN: 1997-003X (Online)
258. Alkhalaf, A.; Woche, H.; Specht, E.: Experimental Investigation of Cross Flow Mixing in an Unstructured Packed Bed. *Journal of Chemical Technology and Metallurgy*, 51, 6, 2016, 639-648. ISSN: 1314-7471 (Print), ISSN: 1314-7978 (Online)

2017

259. Al-Hasnawi, A.G.T.; Specht, E.: A Comparative Analysis of Different Special Injector Burner designs by using CFD. *Journal of Chemical Technology and Metallurgy* 52, 1 (2017) 137-147.
260. Sandaka, G.; Al-Karawi, J.; Specht, E.; Silva, M.: Thermophysical properties of lime as a function of origin (Part 4): Conductivity: *Cement Lime Gypsum* 3 (2017), 36-41.
261. Nafsun, A.I. Herz, F.; Specht, E.; Komossa, H.; Wirtz, S.; Scherer, V.; Liu, X.: Thermal Bed Mixing in Rotary Drums for Different operational Parameters. *Chemical Engineering Science* 160 (2017) 346-353.
262. Karali, M.A.; Specht, E.; Herz, F.; Mellmann, J.: Different camera and light positions to facilitate image analysis

- processing in rotary drums studies. *Powder Technology* 306 (2017) 55-60.
263. Attalla, M.; Maghrabie, H.M.; Qayyum, A.; Al-Hasnawi, A.G.; Specht, E.: Influence of the nozzle shape on heat transfer uniformity for in-line array of impinging air jets. *Applied Thermal Engineering* 120 (2017) 160-169.
264. Attalla, M.; Maghrabie, H.M.; Specht, E.: Effect of inclination angle of a pair of air jets on heat transfer into the flat surface. *Experimental Thermal and Fluid Science* 85 (2017) 85-94.
265. Liu, X.; Hu, Z.; Wu, W.; Zhan, J.; Herz, F.; Specht, E.: DEM study on the surface mixing and whole mixing of granular materials in rotary drums. *Powder Technology* 315 (2017) 438-444.
266. Specht, E.: *Heat and Mass Transfer in Thermoprocessing*. Vulkan Verlag 2017.
267. Mohammadpour, K.; Woche, H.; Specht, E.: CFD Simulation of Parallel Flow Mixing in a Packed Bed using Porous Media Model and Experiment Validation. *Journal of Chemical Technology and Metallurgy*, 52, 3, 2017, 475-484.
268. Herz, F.; Specht, E.: Simulation of lime burning in rotary kilns. *Cement International* 3 (2017) Vol. 15, 40-49.
269. Becker, F.; Specht, E.: Heat Transfer in Rapid Firing Tunnel Kilns for Glost Firing of Porcelain Flatware. *Ceramic Forum International* 94 (2017) 6-7, E26-E29.

2018

270. Al-Hasnawi, A.G.T.; Refaey, H.A.; Redemann, T.; Attalla, M.; Specht, E.: CFD Simulation of Flow Mixing in Tunnel Kiln by Air Side Injection. *Journal of Thermal Science and Engineering Applications* 10 (3) 2018. doi: 10.1115/1.4038840
271. Rein, C.; Thienpont, E.; Adler, W.; Stranzinger, B.; Specht, E.; Herz, F.: Reduzierte Wärmeverluste in Bandverzinkungsanlagen durch reflektierende Beschichtungen. *Stahl und Eisen* 138 (2018) Nr. 1, 54-59.
272. Woche, H.; Fang, Y.; Specht, E.: Wärmeübergang von Sprays und Strahlen bei der Kühlung heißer Metalle. *Prozesswärme* 1 (2018), 129-136.
273. Becker, F.; Specht, E.: *Thermischer Apparatebau und Industrieöfen*. Dubbel 25. Auflage, 2018, Springer Verlag.
274. Sandaka, G.; Specht, E.: Influence of material properties on limestone decomposition. *Cement Lime Gypsum* 3 (2018) 52-56.
275. Al-Khalaf, A.; Refaey, H.A.; Al-durobi, N.; Specht, E.: Influence of Contact Point Treatment on the Cross Flow Mixing in a Simple Cubic packed Bed: CFD Simulation and Experimental Validation. *Granular Matter* (2018) 20:22. > <https://doi.org/10.1007/s10035-018-0793-2> >
276. Waldeck, St.; Woche, H.; Specht, E.; Fritsching, U.: Evaluation of heat transfer in Quenching Processes with Impinging Liquid Jets. *International Journal of Thermal Sciences*, 134 (2018), 160-167.
277. Penumakala, P.K.; Nallathambi, A.K.; Specht, E.; Urlau, U.; Hamilton, D.; Dykes, Ch.: Influence of process parameter on solidification length of twin-belt continuous casting. *Applied Thermal Engineering* 134 (2018) 275-286.
278. Woche, H.; Fang, Y.; Specht, E.: Heat transfer analysis during metal cooling with sprays and jets. *Heat Processing* 1 (2018) 41-47.
279. Karali, M.; Specht, E.; Herz, F.; Mellmann, J.: Unloading characteristics of flights in a flighted rotary drum operated at optimum loading. *Powder Technology*, 333 (2018), 347-352.
280. Wu, W.; Liu, X.; Hu, Z.; Herz, F.; Specht, E.: Measurement of the local material depth in a directly heated pilot rotary kiln based on temperature fields. *Powder Technology*, 330 (2018), 12-18.
281. Kulkarni, G.; Nallathambi, A.K.; Specht, E.: Eulerian Steady State Solution of Boiling curve for Impinging Water Jet on Moving Hot Metal Plate. *Journal of Heat and Mass Transfer*, 2018. (online) DOI: 10.2007/s00231-018-02556-z

2019

282. Karali, M.A.; Specht, E.; Mellmann, J.; Refaey, H.A.; Salem M.R.; Elbanhawey, A.Y.: Granular transport through flighted rotary drums operated at optimum-loading: Mathematical model. *Drying Technology*, 2019. ISSN: 0737-3937 (Print) 1532-2300 (Online) > <https://doi.org/10.1080/07373937.2019.1582062>

- ▶ Completed Dissertations
- ▶ Books & Book Contributions
- ▶ Contributions to Journals
- ▶ Lectures
- ▶ Publications by Research Focus
- ▶ Publications by Vintage