Selected Internal Reports of M3TC

Mathematical Modeling Group

February 2009

M3TC Technical Reports

1. Technical report (M3TC-TN-09-01): Z. H. Wu, Preliminary Design Considerations: Superheated steam drying test facility for lignite, Jan, 2009
2. Technical report (M3TC-TN-08-05): Z. H. Wu and Arun S. Mujumdar, Dewatering and drying of high moisture coals, April, 2008
3. Technical report (M3TC-TN-08-04): Z. H. Wu, Lost foam casting: a mathematical model of the process, April, 2008
4. Technical report (M3TC-TN-08-03): Z. H. Wu, Dewatering and drying in mineral processing industry: potential for innovation, March, 2008
5. Technical report (M3TC-TN-08-02): Z. H. Wu and Arun S. Mujumdar, Liquid steel flow behaviors in an industrial tundish, Feb. 2008
6. Technical report (M3TC-TN-08-01): P. Xu and Arun S. Mujumdar, Innovative hydrocyclone inlet designs to reduce erosion-induced wear in mineral dewatering processes, May, 2008
7. Technical report (M3TC-TRR-07004): X. Q. Wand, Z. H. Wu and Arun S Mujumdar, Report on Microwave for leaching, Dec, 2007
8. Technical report (M3TC-TRR-07003): X. Q. Wand, Z. H. Wu and Arun S Mujumdar, Biomining and its application in mining industry, Nov, 2007
9. Technical report (M3TC-TRR-07002): Z. H. Wu and Arun S Mujumdar, Extracting titanium from iron sand, Oct, 2007
10. Technical report (M3TC-TRR-07001): X. Q. Wang, Z. H. Wu and Arun S Mujumdar, Developments in Tin refining and M3TC's role, Sept., 2007

M3TC Technical presentations (PPT files)

1. Technical presentation: M3TC-TP-09001: Wu. Z.H, Anti-bacteria/Anti-microbial characteristics of copper
2. Technical presentation: M3TC-TP-09002: Wu. Z.H and Mujumdar, A.S., Mathematical model of a lost foam casting process
3. Technical presentation: M3TC-TP-09003: Wu. Z.H and Mujumdar, A.S., Production of cement using municipal solid waste incineration (MSWI) fly ash
4. Technical presentation: M3TC-TP-09004: Wu. Z.H and Mujumdar, A.S., Mathematical models in steelmaking process-selected demonstrations
5. Technical presentation: M3TC-TP-09004: Wu. Z.H and Mujumdar, A.S., Mathematical models in steelmaking process-selected demonstrations
6. Technical presentation: M3TC-TP-09005: Wu. Z.H and Mujumdar, A.S., CFD simulation of flooding vessels-demonstration case

7. Technical presentation: M3TC-TP-09006: Wu. Z.H, Inclusion control for the clean steelmaking
8. Technical presentation: M3TC-TP-09007: Wu. Z.H and Mujumdar, A.S., CFD modeling of liquid steel flow behaviors in an industrial tundish
9. Technical presentation: M3TC-TP-09008: Wu. Z.H and Mujumdar, A.S., Concrete and concrete production using municipal solid waste incineration (MSWI) ash

These reports and presentations are primarily for internal use of the Mathematical Modeling Group (Prof. A.S. Mujumdar) and M3TC. However, upon request we will forward internal reports to industrial parties interested in collaborative R&D activity with M3TC. Note that these reports are not intended for general distribution but indicate areas of interest and expertise of the Mathematical modeling Group, which overlaps with the Transport Processes Research Group of Professor Mujumdar within the mechanical Engineering Department of NUS.

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