RESEARCH NOTES

Geldart-D 类颗粒在长立管-漏斗系统悬料的初始条件

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摘要　The incipient condition of hang-up for three Geldart-D powders has been experimentally studied in a 21 m long standpipe hopper system. Experimental results show that the pressure gradient for hang-up to occur is independent of the materials height in the hopper and the diameter of orifice and equals to $(dpw/dl)s$, which can be predicted by Eq. (7). While the corresponding gas velocity in the standpipe equals to the incipient fluidized velocity of particles at the high pressure and can be predicted by Kwauk's equation.

关键词　 hang-up regime　 standpipe-hopper system　 Geldart-D powder

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Incipient Condition of Hang-up in a Long Standpipe-Hopper System for Geldart-D Powders

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Abstract The incipient condition of hang-up for three Geldart-D powders has been experimentally studied in a 21 m long standpipe hopper system. Experimental results show that the pressure gradient for hang-up to occur is independent of the materials height in the hopper and the diameter of orifice and equals to $(dpw/dl)s$, which can be predicted by Eq. (7). While the corresponding gas velocity in the standpipe equals to the incipient fluidized velocity of particles at the high pressure and can be predicted by Kwauk's equation.

Key words　 hang-up regime; standpipe-hopper system; Geldart-D powder

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