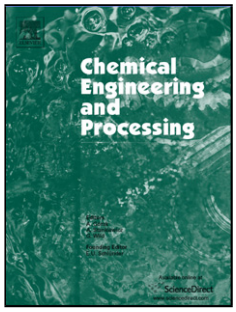

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Experimental investigation of hydrodynamic and heat transfer effects on scaling in an agitated tank

Prasanjit Das[1]*, M.M.K. Khan[1], M.G. Rasul[1], Jie Wu[2], I. Youn[2]
[1]*School of Engineering and Technology, Central Queensland University, QLD 4702, Australia

[2]CSIRO, Fluids Engineering, Mineral Resources, Clayton, Melbourne, VIC 3168, Australia

*Corresponding Author: Prasanjit Das, School of Engineering and Technology, Central Queensland University, QLD 4702, Australia
E-mail : p.das@cqu.edu.au, prasanjitd11@yahoo.com, Cell : +61469304900
Fax : +61 7 4930 9382

E-mail address: p.das@cqu.edu.au (Prasanjit Das), m.khan@cqu.edu.au (M.M.K. Khan), m.rasul@cqu.edu.au (M.G. Rasul), Jie.Wu@csiro.au (Jie Wu), In.Youn@csiro.au (I. Youn)

Graphical Abstract

It was observed that the impeller agitation speed plays a critical role in the scale growth and suppression mechanisms as the scale growth rate is enhanced at lower and is reduced at higher agitation rate. The larger impeller creates more fluid erosion and lowers the scale growth on the wall. The scaling development is a function of agitation rate which creates a significant resistance to the heat transfer rate.