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Authors: Ali Z. Al hassn, Sonja Jeßbergerc, Michael J. Hounslow, Agba D. Salman



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# MULTI-STAGE GRANULATION: AN APPROACH TO ENHANCE FINAL GRANULE ATTRIBUTES

Ali Z. Al hassn<sup>1,2</sup>, Sonja Jeßberger<sup>3</sup>, Michael J. Hounslow<sup>1</sup> & Agba D. Salman<sup>1</sup>

1 Department of Chemical and Biological Engineering, University of Sheffield, Mappin Street, Sheffield, S1 3JD, UK

2 Department of Chemical Engineering, College of Engineering, University of Diyala, Iraq

3 Maschinenfabrik Gustav Eirich GMBH & Co KG, Walldürner Str. 50, 74736 Hardheim, Germany.

Email: azalhassn1@sheffield.ac.uk

Graphical abstract

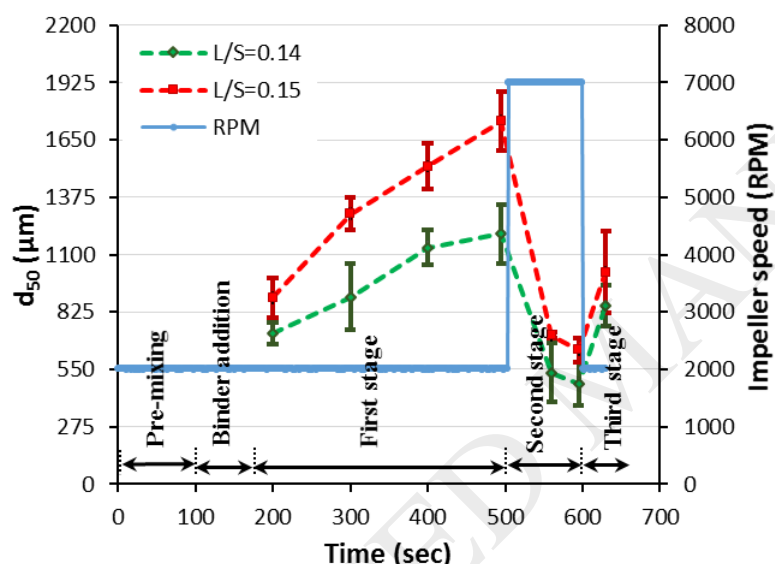


Figure 1. Granular median size vs granulation time for L/S=0.14 and 0.15, LP process.

## Highlights

- Non-conventional granulation method named as multi-stage granulation is conducted
- Impeller speed is changed in pulse mode resulting three stages of process variables
- Two processes are implemented, Early Pulse and Late Pulse
- Growth, breakage and growth happened in the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> stages, respectively
- The dissolution rate of the granules was observed to improve

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