Title: Different effects of silica added internal or external on in vitro dissolution of indomethacin hot-melt extrudates

Authors: Yulong Xia, Meng Yuan, Yueyang Deng, Xue Ke, Tianyuan Ci

PII: S0378-5173(17)31021-9
DOI: https://doi.org/10.1016/j.ijpharm.2017.10.041
Reference: IJP 17097

To appear in: *International Journal of Pharmaceutics*

Received date: 19-5-2017
Revised date: 15-10-2017
Accepted date: 21-10-2017

Please cite this article as: Xia, Yulong, Yuan, Meng, Deng, Yueyang, Ke, Xue, Ci, Tianyuan, Different effects of silica added internal or external on in vitro dissolution of indomethacin hot-melt extrudates.International Journal of Pharmaceutics https://doi.org/10.1016/j.ijpharm.2017.10.041

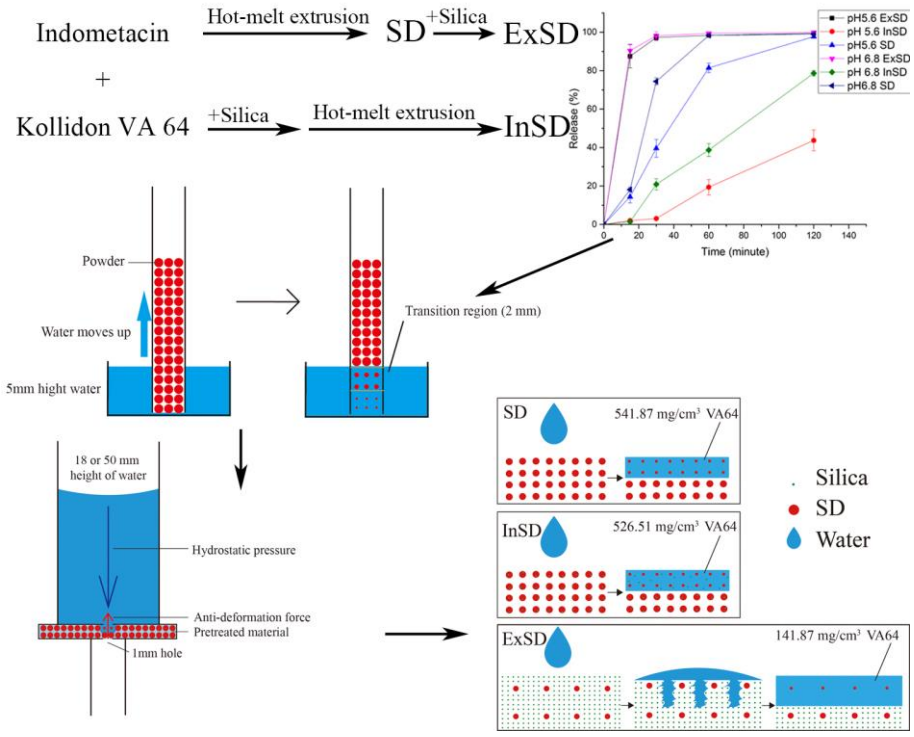
Different effects of silica added internal or external on in vitro dissolution of indomethacin hot-melt extrudates

Yulong Xia[1], Meng Yuan[1], Yueyang Deng, Xue Ke*, Tianyuan Ci*

(The first two authors contributed equally to this work and are considered co-first authors)

Department of Pharmaceutics, State Key Laboratory of Natural Medicines, China Pharmaceutical University, 24 Tongjiaxiang, Nanjing 210009, China

Graphical abstract



Abstract

The purpose of this work was to investigate the effect on the dissolution behavior when silica was added in different ways. The solid dispersion was prepared by

* Corresponding authors. Tel: +86-25-8327-1035; Fax: +86-25-8327-1269;

E-mail address: kexue1973@vip.sina.com(X. Ke); citianyuan_cpu@163.com (T.Y. Ci).

Abbreviations: HME, hot-melt extrusion; IND, indomethacin; SD, solid dispersion; InSD, silica internal-added solid dispersion; ExSD, external-added solid dispersion; PVP VA64, Kollidon® VA64; DSC, differential scanning calorimetry; XRPD , X-ray powder diffraction; FTIR , Fourier-transform infrared spectrometry; PM, physical mixture;PBS, phosphate buffer saline.