

# A Package of Established Analytical Tools to Investigate the Solid-State Alteration of Lipid-Based Excipients

Sharareh Salar-Behzadi<sup>1,2</sup>, Carolina Corzo<sup>1</sup>, Peter Laggner<sup>1</sup>

<sup>1</sup>Research Center Pharmaceutical Engineering, GmbH <sup>2</sup>Institute of Pharmaceutical Sciences, Department of Pharmaceutical Technology and Biopharmacy, University of Graz

## Corresponding Author

Sharareh Salar-Behzadi  
sharareh.salar@rcpe.at

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## Materials

| Name                                                                                                  | Company                         | Catalog Number   | Comments               |
|-------------------------------------------------------------------------------------------------------|---------------------------------|------------------|------------------------|
| CaCl <sub>2</sub> ·2H <sub>2</sub> O                                                                  | Sigma-Aldrich                   | 223506           |                        |
| Cassettes with a cellulose membrane bag with a cut-off of 7000 Da, Thermo Scientific Slide-A-Lyzer 7K | Fisher Scientific Inco, USA     |                  |                        |
| Control software of x-ray system                                                                      | HECUS dedicated house equipment |                  |                        |
| Control unit of x-ray system                                                                          | HECUS dedicated house equipment |                  |                        |
| Differential scanning calorimeter (DSC) aluminum crucibles and lids                                   | Netzsch, Germany                |                  |                        |
| Differential scanning calorimeter DSC 204 F1 Phoenix (NETZSCH, Germany).                              | Netzsch, Germany                |                  |                        |
| Dipalmitoylphosphatidylcholine (DPPC)                                                                 | Sigma-Aldrich                   | 850355P          |                        |
| Dissolution paddle apparatus II, Erweka DT 828 LH                                                     | Erweka GmbH, Langen, Germany    |                  |                        |
| Dynasan 116                                                                                           | IOI OLEO                        |                  | Tripalmitin            |
| Geleol                                                                                                | Gattefosse                      |                  | Glyceryl monosterarate |
| KCl                                                                                                   | Sigma-Aldrich                   | 529552           |                        |
| KH <sub>2</sub> PO <sub>4</sub>                                                                       | Sigma-Aldrich                   | P0662            |                        |
| Kolliphor P 188                                                                                       | BASF Chem Trade                 |                  | Poloxamer 188          |
| MgCl <sub>2</sub> ·6H <sub>2</sub> O                                                                  | Sigma-Aldrich                   | M2670            |                        |
| Na <sub>2</sub> HPO <sub>4</sub> ·2H <sub>2</sub> O                                                   | Sigma-Aldrich                   | S9763            |                        |
| NaCl                                                                                                  | Sigma-Aldrich                   | S9888            |                        |
| Netzsch DSC 204F1 Software Version 8.0.1                                                              | Netzsch, Germany                | 6.239.2-64.51.00 |                        |
| Origin Pro (OriginLab, Northampton, MA) (statistical software)                                        | OriginLab, Northampton, MA      |                  |                        |
| Proteous Analysis Software                                                                            | Netzsch, Germany                |                  |                        |
| Tween 65                                                                                              |                                 |                  | Polysorbate 65         |

|                                                                                                        |                                 |  |                                                                   |
|--------------------------------------------------------------------------------------------------------|---------------------------------|--|-------------------------------------------------------------------|
| Witepsol PMF 1683                                                                                      | IOI OLEO                        |  | Triglycerol ester of stearic/palmitic acid (partially esterified) |
| Witepsol PMF 282                                                                                       | IOI OLEO                        |  | Diglycerol ester of stearic acid                                  |
| X-ray HECUS system composed of a point-focusing camera and two linearly positioned sensitive detectors | HECUS dedicated house equipment |  |                                                                   |