Supplementary Data

Solid-state Transformations of Sulfathiazole Polymorphs: the Effects of Milling and Humidity

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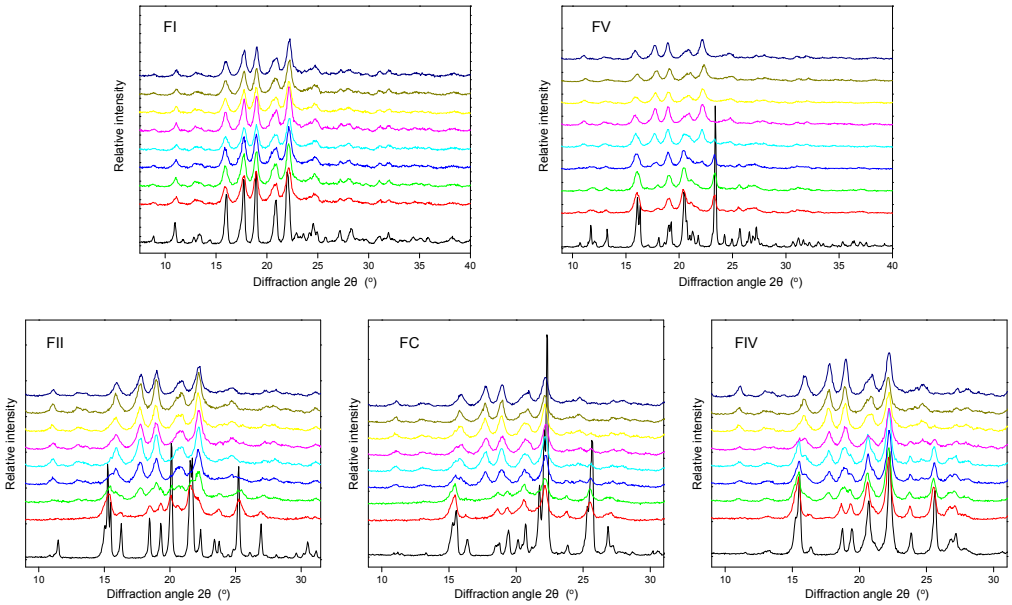

Figure S1 XRPD patterns of the commercial sulfathiazole and polymorphs with milling time, from bottom to top: 0 min, 5 min, 10 min, 20 min, 30 min, 45 min, 60 min, 90 min, 120 min.

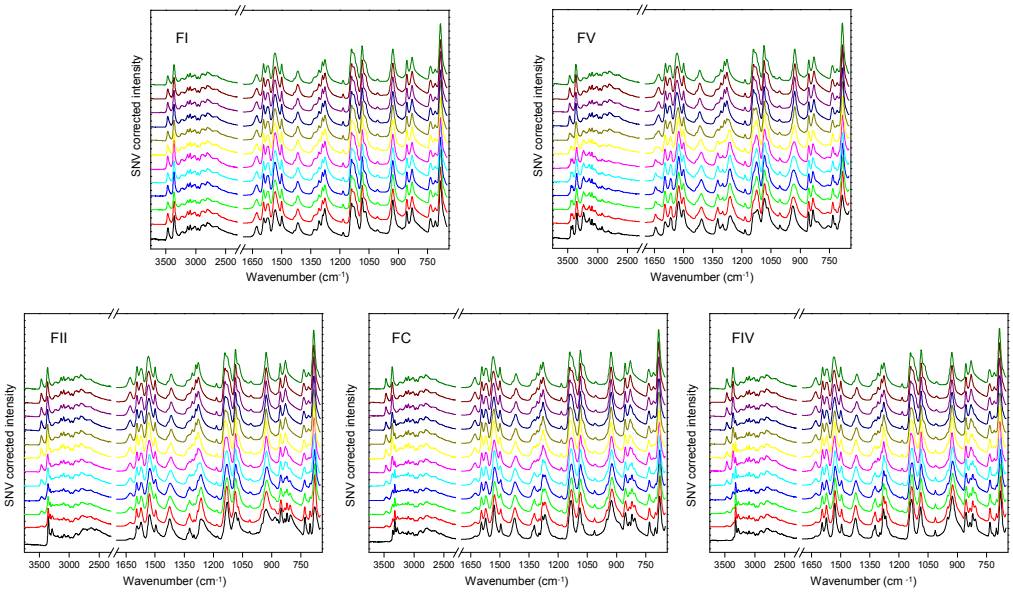

Figure S2 IR spectra of the commercial sulfathiazole and polymorphs with milling time, from bottom to top: 0 min, 2.5min, 5 min, 7.5min, 10 min, 15min, 20 min, 30 min, 45 min, 60 min, 90 min, 120 min.

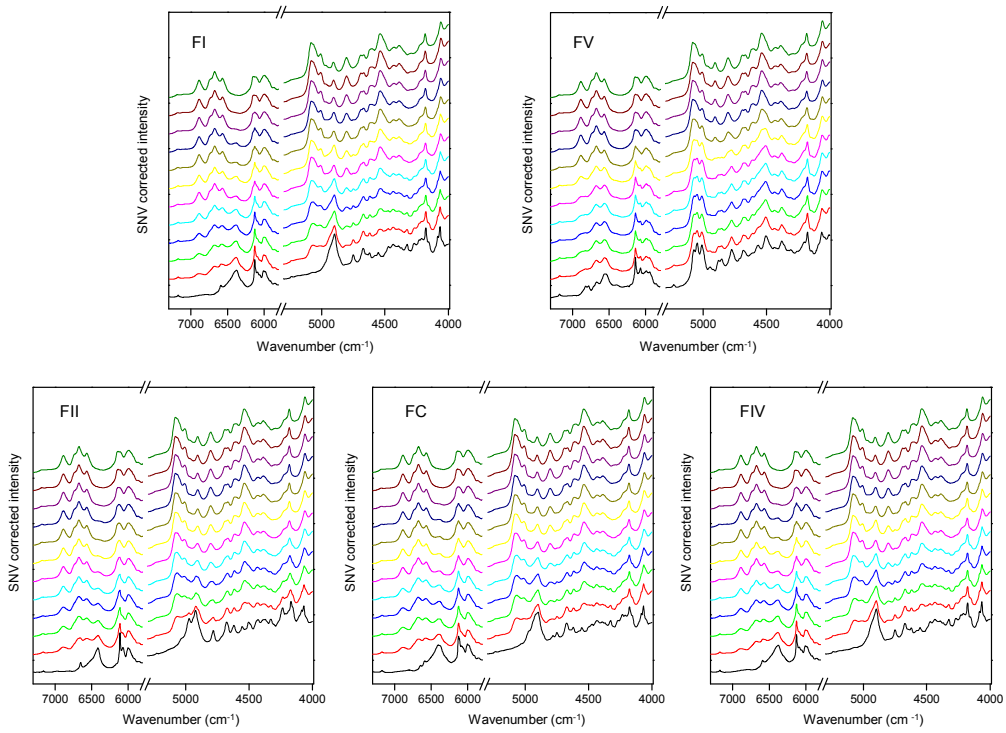

Figure S3 NIR spectra of the commercial sulfathiazole and polymorphs with milling time, from bottom to top: 0 min, 2.5min, 5 min, 7.5min, 10 min, 15min, 20 min, 30 min, 45 min, 60 min, 90 min, 120 min.

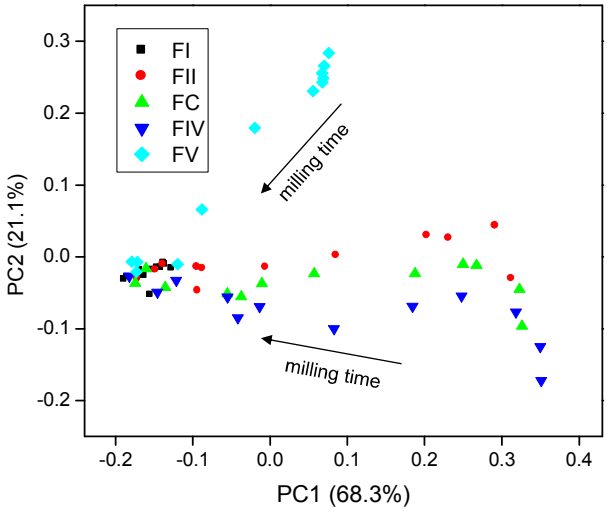

Figure S4 Scores plot of the IR spectra of the milled sulfathiazole samples. The arrows represent the direction of milling time.

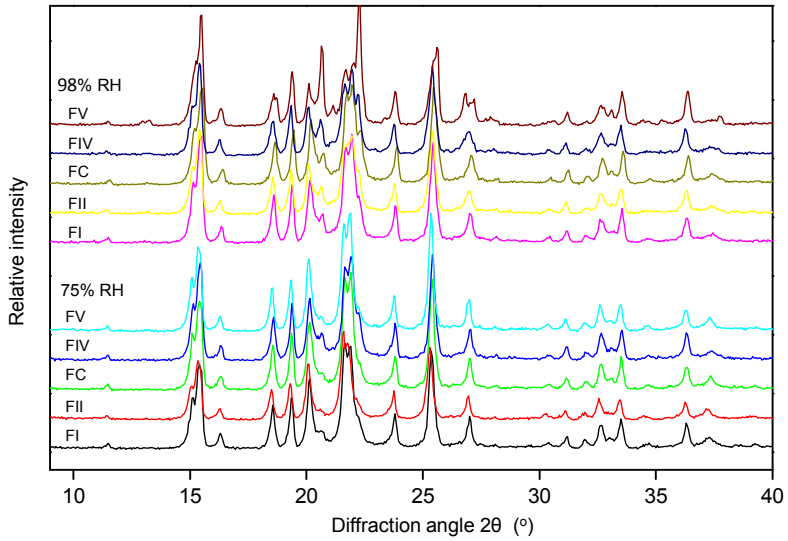

Figure S5 XRPD patterns of 120 min milled sulfathiazole samples at 75% and 98% RH for 14 days.

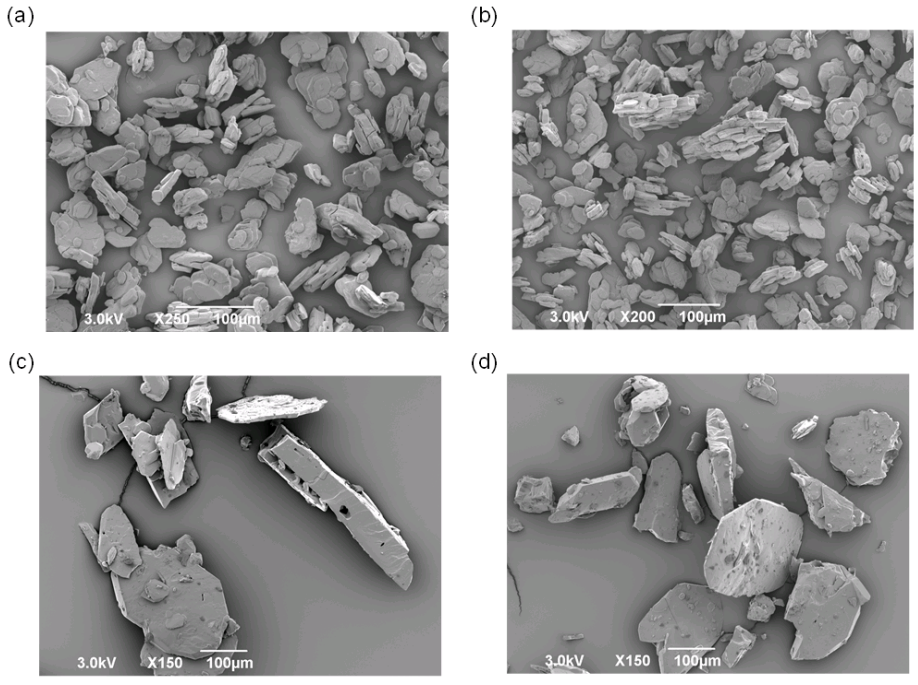

Figure S6 SEM images of FI (a) after exposure at 75% RH for 28 days, (b) at 98% for 14 days, and FV (c) after exposure at 75% RH for 100 days, (d) at 85% for 63 days.