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*Supplementary Files*

# Solid-State Dehydration Mechanism of Diclofenac Sodium Salt Hydrates

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The Supplementary File contains a table (**Table S1**) and a figure (**Figure S1**).

**Table S1.** Crystal structures of diclofenac sodium (DIC-Na) hydrates published thus far.

	pentahydrate	4.75-hydrate	tetrahydrate (3.94-hydrate)	3.5-hydrate
Publication year	2002	2007	1988	2020
Author(s)	Muangsin et al.	Llinàs et al.	Reck et al.	Nieto et al.
Space group	<i>P</i> 2 <sub>1</sub> / <i>m</i>	<i>P</i> 2 <sub>1</sub>	<i>P</i> 2 <sub>1</sub> / <i>m</i>	<i>P</i> 1̄
<i>a</i> / Å	9.508(4)	9.554(1)	9.464(2)	9.4370(4)
<i>b</i> / Å	39.591(1)	39.491(1)	39.405(7)	9.5675(5)
<i>c</i> / Å	9.997(4)	9.841(1)	9.972(3)	19.1526(10)
$\alpha$ / °	90	90	90	90.331(4)
$\beta$ / °	90.69(1)	90.73(1)	90.74(2)	99.828(4)
$\gamma$ / °	90	90	90	90.436(4)
<i>Z</i> , <i>Z'</i>	8, 2	8, 4	8, 2	4, 2
R-factor	0.0706	0.0323	-	0.0414
CSD identifier	AKOTAV	LIQFUN	-	LAHBAB
	1102110	630862		2044232
Reference	[33]	[34]	[35]	[37]

**Figure S1.** DSC diagram of DIC-Na 4.75H, collected at  $+10^{\circ}\text{C min}^{-1}$  up to  $300^{\circ}\text{C}$  in a sealed Al pan with flowing  $\text{N}_2$  gas ( $100 \text{ mL min}^{-1}$ ), using Thermo plus EVO (Rigaku, Japan). The sample weight was 6.5 mg.

