Electronic Supplementary Material (ESI) for Dalton Transactions.

Layered terbium hydroxides for simultaneous drug delivery and imaging

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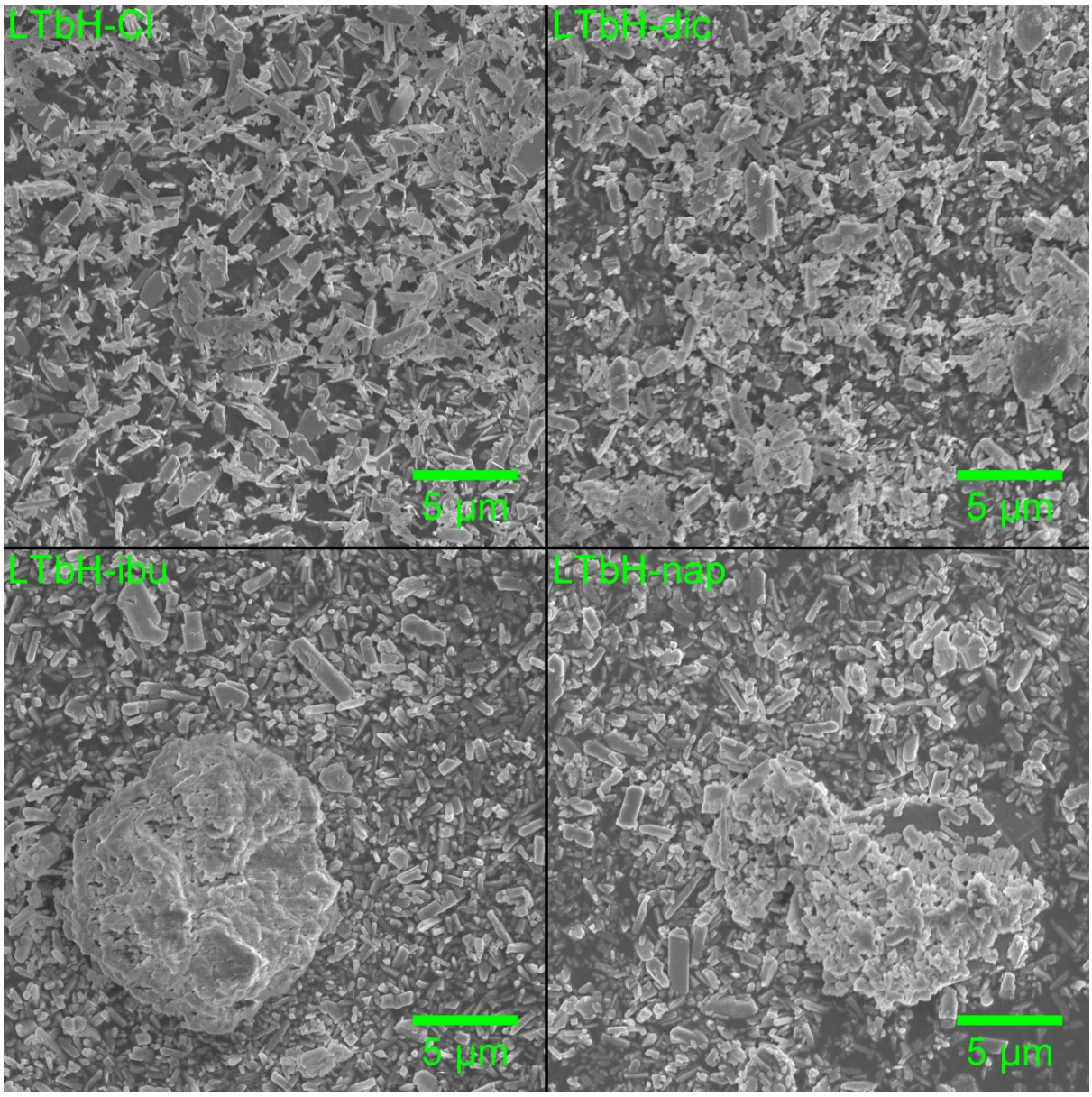

Figure S1 Additional SEM images of LTbH-Cl and LTbH-drug intercalates, showing aggregation seen in the samples.

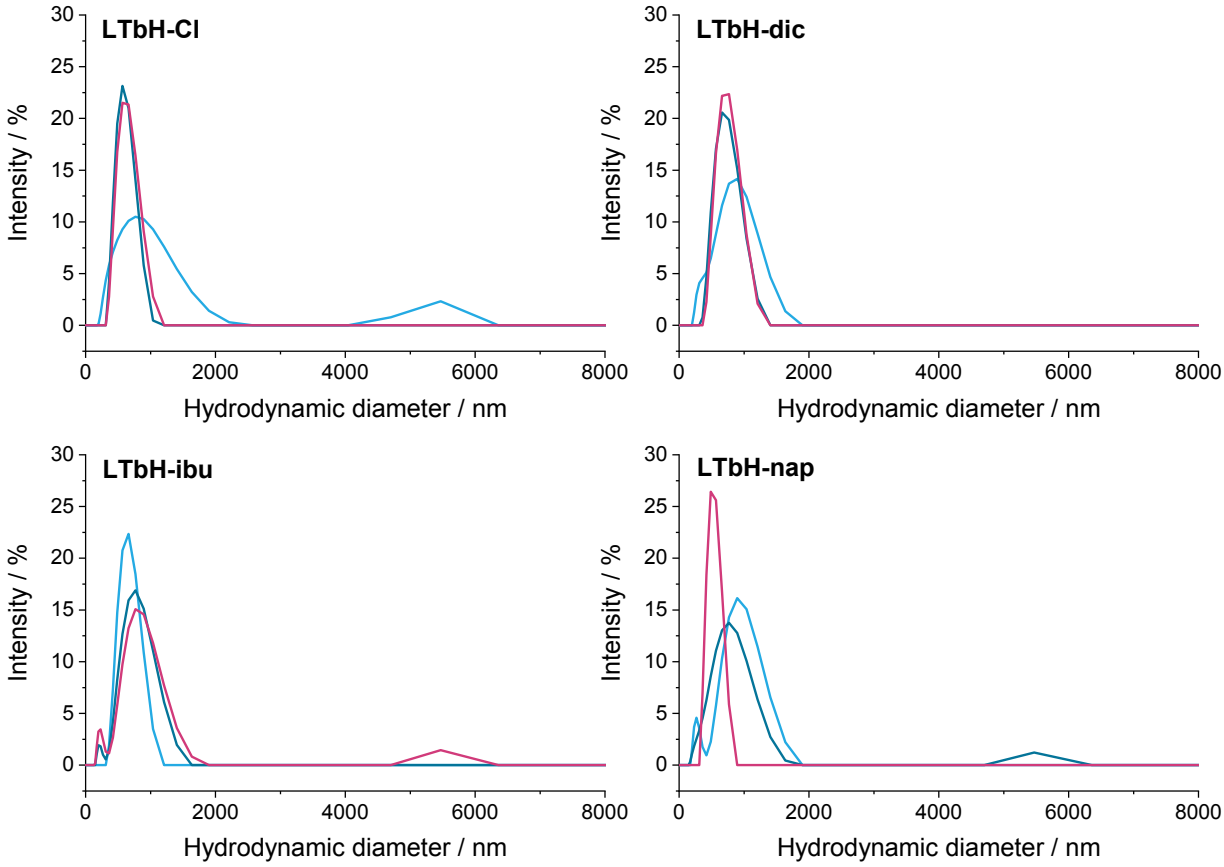

Figure S2 DLS plots for aqueous dispersions of LTbH and the LTbH-drug intercalates.

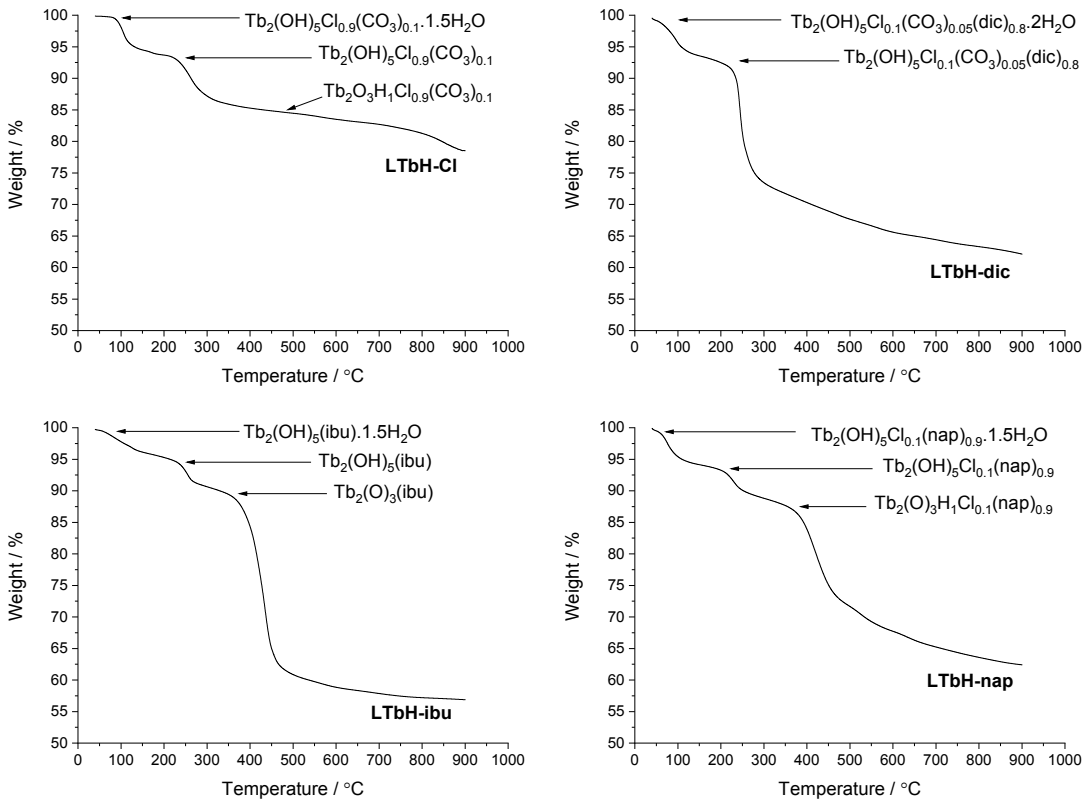

Figure S3 Thermograms of LTbH-Cl and LTbH-drug intercalates, showing intermediate phases calculated based on % mass loss.

Table S1 Summary of observed (and calculated) values for elemental analysis and TGA data.

Material	%C	%H	%N	Mass loss % (H_2O)
LTbH-Cl	0.29 (0.13)	1.48 (1.73)	-	5.78 (5.81)
LTbH-dic	20.12 (19.82)	2.12 (2.51)	1.66 (1.64)	5.26 (5.29)
LTbH-ibu	24.81 (24.58)	2.65 (3.97)	-	4.25 (4.25)
LTbH-nap	23.96 (23.65)	2.61 (3.10)	-	5.82 (4.22)

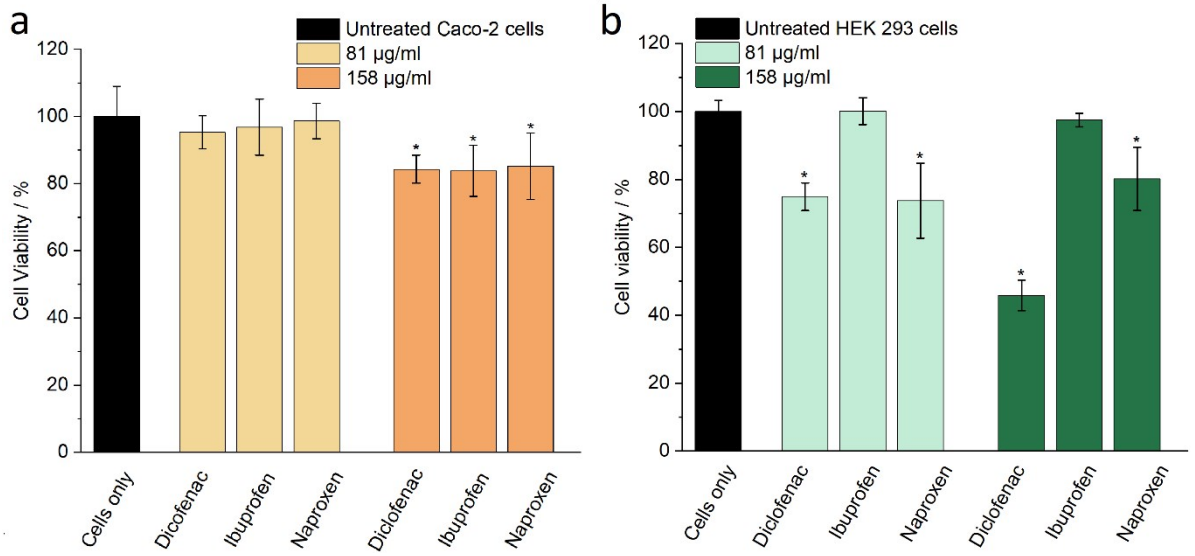

*Figure S4 Graphs showing the results of in-vitro cell viability assays using a.) Caco-2 and b.) HEK 293 cell lines, with diclofenac, ibuprofen, and naproxen at two concentrations (81 µg / ml and 158 µg / ml). The experiment was performed three times, each in triplicate. Results are presented as mean ± standard deviation. * denotes groups with a significantly different mean viability from the untreated cells control, at the p = 0.05 level.*

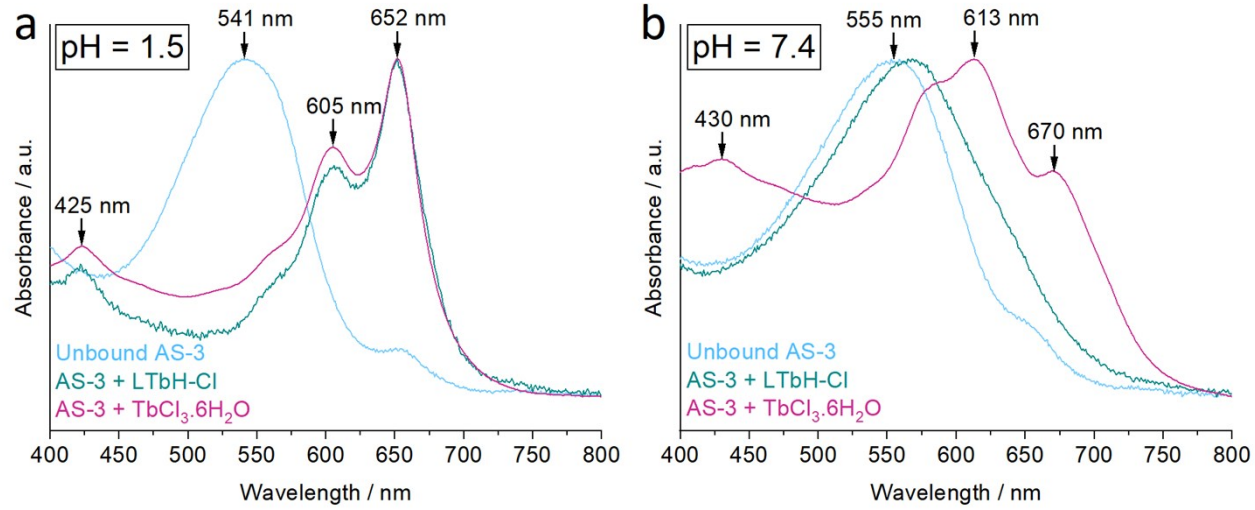

Figure S5 Absorbance spectra of unbound AS-3, AS-3 with LTbH-Cl, and AS-3 with $TbCl_3 \cdot 6H_2O$ at a.) pH 1.5 and b.) pH 7.4. It can be seen that the characteristic peaks of both unbound and bound AS-3 appear at a slightly lower wavelength in acidic media relative to media at pH = 7.4.

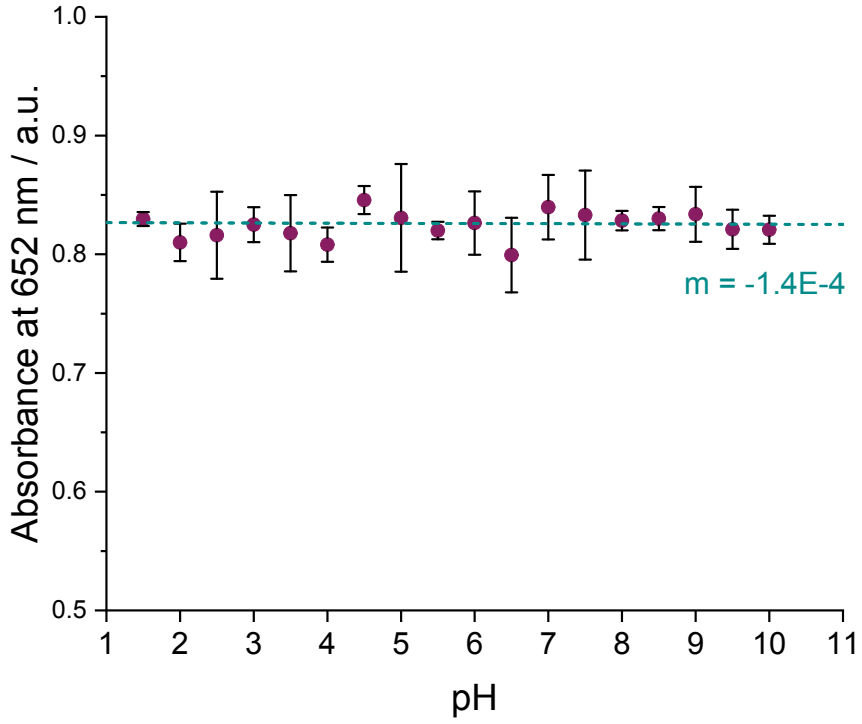

Figure S6 Plot showing the absorbance at 652 nm of 1.25 mM solutions of $TbCl_3 \cdot 6H_2O$ in water (combined with equal volumes of a 2.5 mM solution of AS-3) across a range of pH values. The experiment was performed three separate times, each in triplicate. Results are presented as mean ± standard deviation.

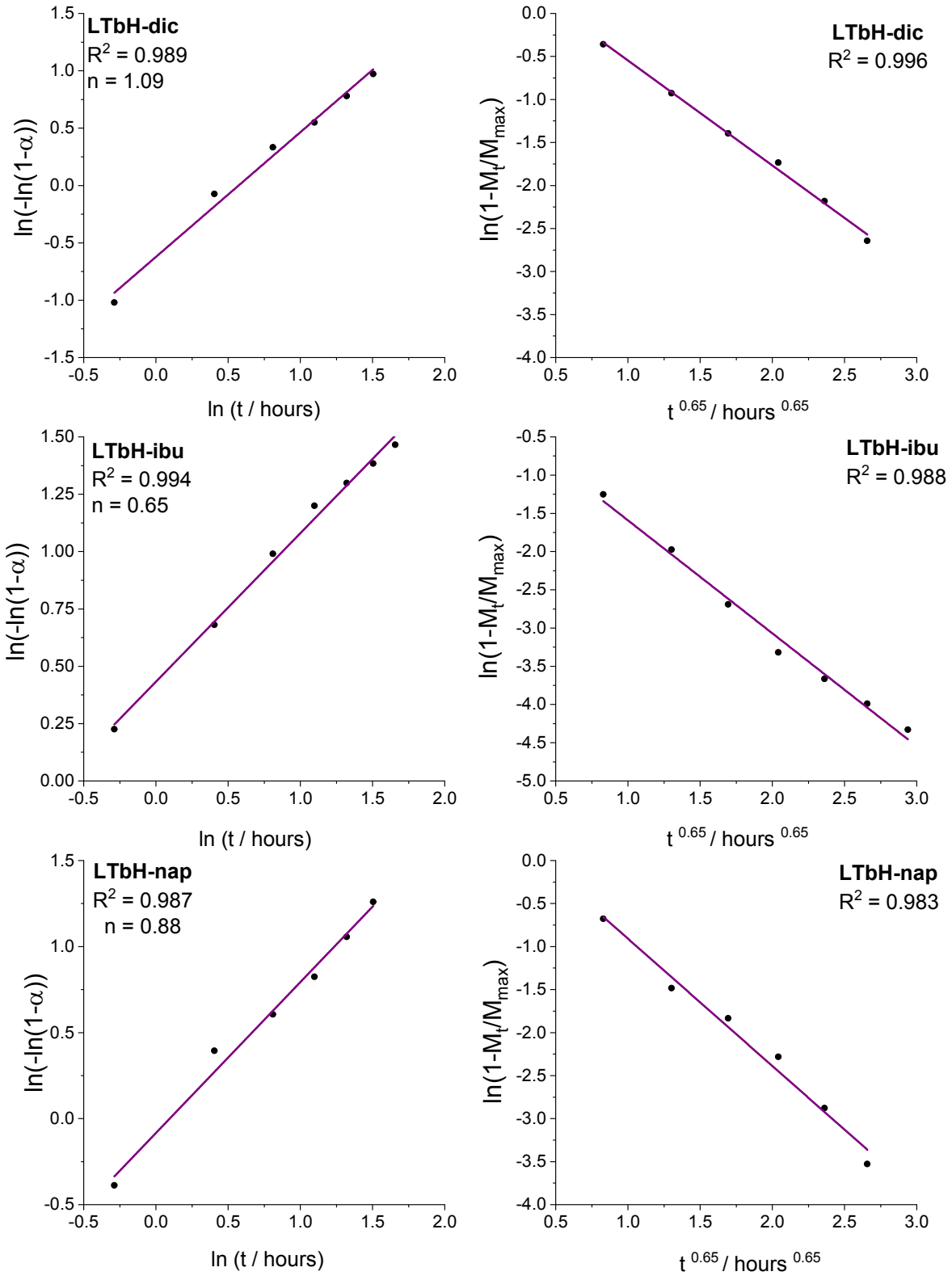

Figure S7 Fits of the Avrami (left) and Bhaskar (right) models to drug release data from LTbH-dic, LTbH-ibu, and LTbH-nap.