Importance of conjugation of the bile salt on the mechanism of lipolysis

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Supporting Information

Table S1 CMC data

Bile salt	CMC	Temperature [K]	Reference
NaC	10.80	283.15	(Mukherjee et al. 2016)
NaC	12.50	283.15	(Mukherjee et al. 2016)
NaC	17.90	283.15	(Olesen, Westh, and Holm 2015)
NaC	8.80	283.15	(Maestre, Guardado, and Moyá 2014)
NaC	8.02	293.15	(Rub et al. 2013)
NaC	7.78	293.15	(Mukherjee et al. 2016)
NaC	8.25	293.15	(Mukherjee et al. 2016)
NaC	8.02	293.15	(Kabir-ud-Din, Rub, and Naqvi 2011)
NaC	14.40	293.15	(Kumar, Patial, and Chauhan 2015)
NaC	8.67	298.15	(Rub et al. 2013)
NaC	9.70	298.15	(Olesen et al. 2015)
NaC	9.00	298.15	(Azum, Rub, and Asiri 2019)
NaC	9.00	298.15	(Miyajima, K., Yokoi, M., Komatsu, H., & Nakagaki 1986)
NaC	10.00	298.15	(Faustino et al. 2014)
NaC	11.30	298.15	(Faustino et al. 2014)
NaC	6.20	298.15	(Ninomiya, Matsuoka, and Moroi 2003)
NaC	12.90	298.15	(Ćirin, Poša, and Krstonošić 2011)
NaC	12.78	298.15	(Ćirin et al. 2011)
NaC	12.90	298.15	(Ćirin et al. 2011)
NaC	12.73	298.15	(Ćirin et al. 2011)
NaC	16.00	298.15	(Subuddhi and Mishra 2007)
NaC	10.20	298.15	(Yadav, Parikh, and Kumar 2017)
NaC	13.00	298.15	(Roda, Hofmann, and Mysels 1983)
NaC	11.10	298.15	(Poša, Ćirin, and Krstonošić 2013)
NaC	8.67	298.15	(Kabir-ud-Din et al. 2011)
NaC	14.10	298.15	(Kumar et al. 2015)
NaC	7.98	298.15	(Mahajan and Mahajan 2012)
NaC	6.20	298.15	(Matsuoka and Moroi 2002)
NaC	11.00	298.15	(Nakashima et al. 2002)
NaC	10.20	298.15	(Maestre et al. 2014)

NaC	9.10	298.15	(Poša et al. 2015)
NaC	8.80	298.15	(Poša et al. 2015)
NaC	5.18	303.15	(Jana and Moulik 1991)
NaC	9.12	303.15	(Jana and Moulik 1991)
NaC	7.22	303.15	(Jana and Moulik 1991)
NaC	9.06	303.15	(Rub et al. 2013)
NaC	5.89	303.15	(Mukherjee et al. 2016)
NaC	7.35	303.15	(Mukherjee et al. 2016)
NaC	9.06	303.15	(Kabir-ud-Din et al. 2011)
NaC	14.00	303.15	(Kumar et al. 2015)
NaC	6.10	310.15	(Mukherjee et al. 2016)
NaC	18.80	310.15	(Olesen et al. 2015)
NaC	7.50	310.15	(Mukherjee et al. 2016)
NaC	9.40	310.15	(Maestre et al. 2014)
NaC	14.30	313.15	(Kumar et al. 2015)
NaC	17.50	323.15	(Olesen et al. 2015)
NaC	19.10	323.15	(Maestre et al. 2014)
NaCDC	3.00	298.15	(Ninomiya et al. 2003)
NaCDC	9.00	298.15	(Roda et al. 1983)
NaCDC	4.60	298.15	(Nakashima et al. 2002)
NaCDC	5.80	298.15	(Poša et al. 2015)
NaCDC	5.50	298.15	(Poša et al. 2015)
NaDC	2.95	283.15	(Sugihara and Tanaka 1976)
NaDC	6.30	283.15	(Olesen et al. 2015)
NaDC	4.65	283.15	(Mukherjee et al. 2016)
NaDC	5.82	283.15	(Mukherjee et al. 2016)
NaDC	6.60	283.15	(Maestre et al. 2014)
NaDC	3.35	283.15	(Sugihara and Tanaka 1976)
NaDC	3.24	283.15	(Sugihara and Tanaka 1976)
NaDC	2.30	283.15	(Matsuoka and Moroi 2002)
NaDC	3.55	293.15	(Sugihara and Tanaka 1976)
NaDC	3.47	293.15	(Sugihara and Tanaka 1976)
NaDC	1.50	293.15	(Carey and Small 1969)
NaDC	2.95	293.15	(Rub et al. 2013)
NaDC	3.80	293.15	(Mukherjee et al. 2016)
NaDC	5.36	293.15	(Mukherjee et al. 2016)
NaDC	2.95	293.15	(Kabir-ud-Din et al. 2011)
NaDC	6.00	293.15	(Kumar et al. 2015)
NaDC	4.10	298.15	(Juna, K., & Sugano 1969)
NaDC	2.00	298.15	(Small 1971)
NaDC	4.30	298.15	(Olesen et al. 2015)
NaDC	7.94	298.15	(Sugihara and Tanaka 1976)
NaDC	1.70	298.15	(Sugihara and Tanaka 1976)
NaDC	4.20	298.15	(Miyajima, K., Yokoi, M., Komatsu, H., & Nakagaki 1986)
NaDC	4.50	298.15	(Jana and Moulik 1991)

NaDC	2.40	298.15	(Matsuoka and Moroi 2002)
NaDC	4.00	298.15	(Nakashima et al. 2002)
NaDC	2.40	298.15	(Ninomiya et al. 2003)
NaDC	6.00	298.15	(Subuddhi and Mishra 2007)
NaDC	4.30	298.15	(Ćirin et al. 2011)
NaDC	4.25	298.15	(Ćirin et al. 2011)
NaDC	4.16	298.15	(Ćirin et al. 2011)
NaDC	3.02	298.15	(Kabir-ud-Din et al. 2011)
NaDC	4.30	298.15	(Ćirin et al. 2011)
NaDC	4.25	298.15	(Ćirin et al. 2011)
NaDC	2.90	298.15	(Mahajan and Mahajan 2012)
NaDC	3.02	298.15	(Kabir-ud-Din et al. 2011)
NaDC	3.07	298.15	(Poša et al. 2013)
NaDC	5.56	298.15	(Faustino et al. 2014)
NaDC	5.74	298.15	(Faustino et al. 2014)
NaDC	4.50	298.15	(Maestre et al. 2014)
NaDC	5.40	298.15	(Kumar et al. 2015)
NaDC	4.50	298.15	(Yadav et al. 2017)
NaDC	3.25	298.15	(Azum et al. 2019)
NaDC	3.97	303.00	(Jana and Moulik 1991)
NaDC	2.75	303.00	(Jana and Moulik 1991)
NaDC	7.94	303.00	(Jana and Moulik 1991)
NaDC	4.80	303.00	(Sugihara and Tanaka 1976)
NaDC	4.57	303.00	(Sugihara and Tanaka 1976)
NaDC	3.11	303.15	(Rub et al. 2013)
NaDC	3.02	303.15	(Mukherjee et al. 2016)
NaDC	4.05	303.15	(Mukherjee et al. 2016)
NaDC	3.11	303.15	(Kabir-ud-Din et al. 2011)
NaDC	5.10	303.15	(Kumar et al. 2015)
NaDC	8.20	310.15	(Maestre et al. 2014)
NaDC	8.12	310.15	
NaDC	8.20	310.15	(Olesen et al. 2015)
NaDC	6.10	313.15	(Sugihara and Tanaka 1976)
NaDC	3.16	313.15	(Mukherjee et al. 2016)
NaDC	4.32	313.15	(Mukherjee et al. 2016)
NaDC	5.90	313.15	(Kumar et al. 2015)
NaDC	10.20	323.15	(Maestre et al. 2014)
NaDC	10.10	323.15	(Olesen et al. 2015)
NaGC	13.60	283.15	(Maestre et al. 2014)
NaGC	12.80	283.15	(Olesen et al. 2015)
NaGC	6.80	298.15	(Maestre et al. 2014)
NaGC	4.20	298.15	(Small 1971)
NaGC	6.30	298.15	(Olesen et al. 2015)
NaGC	7.00	298.15	(Miyajima, K., Yokoi, M., Komatsu, H., & Nakagaki 1986)
NaGC	12.00	298.15	(Roda et al. 1983)

NaGC	10.00	298.15	(Nakashima et al. 2002)
NaGC	14.70	310.15	(Maestre et al. 2014)
NaGC	14.10	310.15	(Olesen et al. 2015)
NaGC	16.00	323.15	(Maestre et al. 2014)
NaGC	15.00	323.15	(Olesen et al. 2015)
NaGCDC	6.00	298.15	(Roda et al. 1983)
NaGCDC	2.30	298.15	(Olesen et al. 2015)
NaGCDC	7.00	298.15	(Roda et al. 1983)
NaGCDC	7.00	298.15	(Roda et al. 1983)
NaGCDC	2.40	298.15	(Nakashima et al. 2002)
NaGCDC	2.10	310.15	(Olesen et al. 2015)
NaGDC	5.80	283.15	(Maestre et al. 2014)
NaGDC	5.60	283.15	(Olesen et al. 2015)
NaGDC	6.00	298.15	(Roda et al. 1983)
NaGDC	3.30	298.15	(Olesen et al. 2015)
NaGDC	2.12	298.15	(Kratohvil and DelliColli 1968)
NaGDC	1.10	298.15	(Small 1971)
NaGDC	1.90	298.15	(Small 1971)
NaGDC	2.20	298.15	(Nakashima et al. 2002)
NaGDC	3.43	298.15	(Maestre et al. 2014)
NaGDC	6.00	310.15	(Maestre et al. 2014)
NaGDC	5.80	310.15	(Olesen et al. 2015)
NaGDC	6.60	323.15	(Maestre et al. 2014)
NaGDC	6.10	323.15	(Olesen et al. 2015)
NaTC	6.79	283.15	(Mukherjee et al. 2016)
NaTC	7.92	283.15	(Mukherjee et al. 2016)
NaTC	4.00	283.15	(Rub et al. 2014)
NaTC	8.30	283.15	(Olesen et al. 2015)
NaTC	3.20	283.15	(Carey and Small 1969)
NaTC	8.80	283.15	(Maestre et al. 2014)
NaTC	2.80	293.15	(Carey and Small 1969)
NaTC	4.25	293.15	(Kabir-ud-Din et al. 2011)
NaTC	4.25	293.15	(Rub et al. 2013)
NaTC	6.68	293.15	(Mukherjee et al. 2016)
NaTC	7.30	293.15	(Mukherjee et al. 2016)
NaTC	4.70	298.15	(Roda et al. 1983)
NaTC	4.50	298.15	(Rub et al. 2013)
NaTC	4.50	298.15	(Kabir-ud-Din et al. 2011)
NaTC	5.00	298.15	(Olesen et al. 2015)
NaTC	4.70	298.15	(Azum et al. 2019)
NaTC	6.00	298.15	(Miyajima, K., Yokoi, M., Komatsu, H., & Nakagaki 1986)
NaTC	5.60	298.15	(Maestre et al. 2014)
NaTC	4.75	303.15	(Rub et al. 2013)
NaTC	4.75	303.15	(Kabir-ud-Din et al. 2011)
NaTC	6.14	303.15	(Mukherjee et al. 2016)

NaTC	6.81	303.15	(Mukherjee et al. 2016)
NaTC	3.10	303.15	(Carey and Small 1969)
NaTC	13.70	310.15	(Maestre et al. 2014)
NaTC	12.60	310.15	(Olesen et al. 2015)
NaTC	12.99	310.15	
NaTC	6.36	313.15	(Mukherjee et al. 2016)
NaTC	7.20	313.15	(Mukherjee et al. 2016)
NaTC	3.00	313.15	(Carey and Small 1969)
NaTC	3.30	323.15	(Carey and Small 1969)
NaTC	14.10	323.15	(Olesen et al. 2015)
NaTC	15.00	323.15	(Maestre et al. 2014)
NaTDC	2.01	283.15	(Mukherjee et al. 2016)
NaTDC	2.21	283.15	(Mukherjee et al. 2016)
NaTDC	4.50	283.15	(Olesen et al. 2015)
NaTDC	1.80	283.15	(Carey and Small 1969)
NaTDC	4.56	283.15	(Maestre et al. 2014)
NaTDC	1.88	293.15	(Mukherjee et al. 2016)
NaTDC	2.62	293.15	(Mukherjee et al. 2016)
NaTDC	1.50	293.15	(Carey and Small 1969)
NaTDC	6.00	298.15	(Jana and Moulik 1991)
NaTDC	3.05	298.15	(Kratohvil and DelliColli 1968)
NaTDC	2.87	298.15	(Kratohvil and DelliColli 1968)
NaTDC	2.30	298.15	(Olesen et al. 2015)
NaTDC	4.07	298.15	(Roda et al. 1983)
NaTDC	4.00	298.15	(Kratohvil, Hsu, and Kwok 1986)
NaTDC	2.30	303.15	(Jana and Moulik 1991)
NaTDC	3.98	303.15	(Jana and Moulik 1991)
NaTDC	4.07	303.15	(Jana and Moulik 1991)
NaTDC	2.43	303.15	(Mukherjee et al. 2016)
NaTDC	2.90	303.15	(Mukherjee et al. 2016)
NaTDC	1.80	303.15	(Carey and Small 1969)
NaTDC	2.88	313.15	(Mukherjee et al. 2016)
NaTDC	3.50	313.15	(Mukherjee et al. 2016)
NaTDC	2.10	313.15	(Carey and Small 1969)
NaTDC	4.53	310.15	(Maestre et al. 2014)
NaTDC	4.50	310.15	(Olesen et al. 2015)
NaTDC	2.10	323.15	(Carey and Small 1969)
NaTDC	5.30	323.15	(Maestre et al. 2014)
NaTDC	5.20	323.15	(Olesen et al. 2015)
TCDC	2.30	298.15	(Olesen et al. 2015)
TCDC	7.00	298.15	(Roda et al. 1983)
TCDC	2.10	310.15	(Olesen et al. 2015)

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Table S2 β values of binary mixtures of bile salts.

System	Temperature [K]	β from literature data	Reference
PU:PC	283.15	0.43	(Mukherjee, Dar, Bhat, Moulik, & Das, 2016)
PU:PC	293.15	0.89	(Mukherjee et al., 2016)
PU:PC	298.15	1.32	(Azum, Rub, & Asiri, 2019)
PU:PC	298.15	2.19	(Azum et al., 2019)
PU:PC	298.15	1.39	(Azum et al., 2019)
PU:PC	298.15	1.48	(Azum et al., 2019)
PU:PC	303.15	1.14	(Mukherjee et al., 2016)
PU:PC	313.15	0.28	(Mukherjee et al., 2016)
PU:SC	283.15	-0.84	(Mukherjee et al., 2016)
PU:SC	293.15	-0.56	(Mukherjee et al., 2016)
PU:SC	303.15	-2.51	(Mukherjee et al., 2016)
PU:SC	313.15	-1.76	(Mukherjee et al., 2016)
PU:SU	283.15	-1.71	(Mukherjee et al., 2016)
PU:SU	293.15	-1.36	(Mukherjee et al., 2016)
PU:SU	298.15	-0.41	(Azum et al., 2019)
PU:SU	298.15	-0.31	(Azum et al., 2019)
PU:SU	298.15	-0.41	(Azum et al., 2019)
PU:SU	298.15	-0.85	(Azum et al., 2019)
PU:SU	303.15	-0.03	(Mukherjee et al., 2016)
PU:SU	313.15	0.84	(Mukherjee et al., 2016)
SU:PC	283.15	0.31	(Mukherjee et al., 2016)
SU:PC	293.15	-0.90	(Mukherjee et al., 2016)
SU:PC	303.15	0.77	(Mukherjee et al., 2016)
SU:PC	310.15	-0.54	(Najar, Chat, Dar, & Rather, 2013)
SU:PC	313.15	0.64	(Mukherjee et al., 2016)
PC:SC	283.15	-0.60	(Mukherjee et al., 2016)
PC:SC	293.15	-3.08	(Mukherjee et al., 2016)
PC:SC	303.15	-3.46	(Mukherjee et al., 2016)
PC:SC	313.15	-2.36	(Mukherjee et al., 2016)
SC:SU	283.15	0.28	(Mukherjee et al., 2016)
SC:SU	293.15	0.71	(Mukherjee et al., 2016)
SC:SU	303.15	-0.16	(Mukherjee et al., 2016)
SC:SU	313.15	1.10	(Mukherjee et al., 2016)

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Table S3 Aggregation numbers of BS

Bile salt	Temp [K]	Concentration [mM]	CMC	NaCl	pH	Aggregation number	Reference
NaGC	283.15	12.80	13.20	0.00	7.00	4.10	(Olesen, Westh, & Holm, 2015)
NaGC	291.15	11.70	7.54	0.00	7.00	4.60	(Olesen et al., 2015)
NaGC	298.15	6.30	7.72	0.00	7.00	4.10	(Olesen et al., 2015)
NaGC	298.15	20.00	7.72	150.00	7.50	8.70	(Matsuoka, Maeda, & Moroi, 2003)
NaGC	310.15	10.00	14.40	120.00	7.00	5.60	(Mustan, Ivanova, Madjarova, Tcholakova, & Denkov, 2015)
NaGC	310.15	14.10	14.40	0.00	7.00	6.70	(Olesen et al., 2015)
NaGC	323.15	15.00	15.50	0.00	7.00	6.10	(Olesen et al., 2015)
NaTC	273.15	6.30	6.40	0.00	7.00	2.42	(Coello, Meijide, Rodríguez Núñez, & Vázquez Tato, 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.44	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.46	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.52	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.54	(Coello et al., 1996)
NaTC	273.15	18.00	6.40	0.00	7.00	2.59	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.65	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.68	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.69	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.69	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.77	(Coello et al., 1996)
NaTC	283.15	8.30	6.50	0.00	7.00	2.70	(Olesen et al., 2015)
NaTC	291.15	7.40	5.02	0.00	7.00	3.80	(Olesen et al., 2015)
NaTC	298.15	5.00	5.00	0.00	7.00	3.00	(Olesen et al., 2015)
NaTC	298.15	20.00	5.00	150.00	7.50	6.00	(Matsuoka et al., 2003)
NaTC	298.20	5.00	5.00	0.00	7.00	5.00	(Matsuoka & Yamamoto, 2017)
NaTC	310.00	10.00	13.50	120.00	7.00	4.50	(Mustan et al., 2015)
NaTC	310.15	12.60	13.50	0.00	7.00	5.00	(Olesen et al., 2015)
NaTC	323.15	14.10	10.80	0.00	7.00	7.30	(Olesen et al., 2015)
NaC	273.15	19.70	5.02	0.00	7.00	3.09	(Coello et al., 1996)
NaC	283.15	17.90	12.50	0.00	7.00	5.50	(Olesen et al., 2015)
NaC	283.80	12.60	12.50	0.00	7.50	4.70	(Garidel, Hildebrand, Neubert, & Blume, 2000)
NaC	284.30	12.50	12.50	100.00	7.50	5.50	(Garidel et al., 2000)
NaC	291.15	14.40	9.24	0.00	7.00	6.20	(Olesen et al., 2015)
NaC	298.15	4.00	4.07	0.00	7.00	3.00	(Maldonado-Valderrama, Wilde, MacIerzanka, & MacKie, 2011)
NaC	298.15	9.70	4.07	0.00	7.00	4.80	(Olesen et al., 2015)
NaC	298.15	20.00	4.07	0.00	7.00	7.00	(Matsuoka & Moroi, 2002)
NaC	298.15	20.00	4.07	0.00	7.00	8.00	(Maldonado-Valderrama et al., 2011)
NaC	298.15	9.00	4.07	0.00	7.00	9.00	(Abdul Rub, Azum, & Asiri, 2017)
NaC	310.00	10.00	8.20	120.00	7.00	4.80	(Mustan et al., 2015)
NaC	310.15	18.80	8.20	0.00	7.00	6.20	(Olesen et al., 2015)

NaC	323.15	17.50	10.15	0.00	7.00	5.20	(Olesen et al., 2015)
NaC	327.90	14.00	10.30	100.00	7.50	5.40	(Garidel et al., 2000)
NaC	328.10	18.30	10.30	0.00	7.50	6.10	(Garidel et al., 2000)
NaGDC	291.15	4.40	2.80	0.00	7.00	6.00	(Olesen et al., 2015)
NaGDC	298.15	3.30	2.86	0.00	7.00	7.60	(Olesen et al., 2015)
NaGDC	310.15	5.80	5.90	0.00	7.00	7.40	(Olesen et al., 2015)
NaGDC	323.15	6.10	6.35	0.00	7.00	6.60	(Olesen et al., 2015)
NaTDC	273.15	3.00	2.95	0.00	7.00	2.92	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	4.87	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	4.96	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.15	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.28	(Coello et al., 1996)
NaTDC	273.15	7.00	2.95	0.00	7.00	5.42	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.44	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.61	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.79	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	6.01	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	6.22	(Coello et al., 1996)
NaTDC	283.15	4.50	3.02	0.00	7.00	7.00	(Olesen et al., 2015)
NaTDC	291.15	3.00	2.97	0.00	7.00	5.20	(Olesen et al., 2015)
NaTDC	298.15	2.30	3.72	0.00	7.00	6.70	(Olesen et al., 2015)
NaTDC	298.20	3.72	372.00	0.00	7.00	9.00	(Matsuoka & Yamamoto, 2017)
NaTDC	310.15	4.50	13.15	0.00	7.00	8.00	(Olesen et al., 2015)
NaTDC	323.15	5.20	4.20	0.00	7.00	7.10	(Olesen et al., 2015)
NaDC	273.15	4.24	4.30	0.00	7.00	5.78	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.79	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.80	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.80	(Coello et al., 1996)
NaDC	273.15	13.00	4.30	0.00	7.00	5.82	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.84	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.85	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.85	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.86	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.86	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	6.74	(Coello et al., 1996)
NaDC	283.15	5.10	4.40	0.00	7.00	5.10	(Olesen et al., 2015)
NaDC	285.80	4.40	4.43	0.00	7.50	7.00	(Garidel et al., 2000)
NaDC	291.15	7.10	3.67	0.00	7.00	7.10	(Olesen et al., 2015)
NaDC	298.15	3.10	4.07	0.00	7.00	3.10	(Olesen et al., 2015)
NaDC	298.15	2.00	4.07	0.00	7.00	6.00	(Maldonado-Valderrama et al., 2011)
NaDC	298.15	20.00	4.07	0.00	7.00	10.00	(Matsuoka & Moroi, 2002)
NaDC	310.15	7.00	8.20	0.00	7.00	7.00	(Olesen et al., 2015)

NaDC	323.15	6.40	10.15	0.00	7.00	6.40	(Olesen et al., 2015)
NaDC	327.80	4.00	10.30	100.00	7.50	7.30	(Garidel et al., 2000)
NaDC	328.20	10.15	10.30	0.00	7.50	5.40	(Garidel et al., 2000)
NaGC	283.15	12.80	13.20	0.00	7.00	4.10	(Olesen et al., 2015)
NaGC	291.15	11.70	7.54	0.00	7.00	4.60	(Olesen et al., 2015)
NaGC	298.15	6.30	7.72	0.00	7.00	4.10	(Olesen et al., 2015)
NaGC	298.15	20.00	7.72	150.00	7.50	8.70	(Matsuoka et al., 2003)
NaGC	310.15	10.00	14.40	120.00	7.00	5.60	(Mustan et al., 2015)
NaGC	310.15	14.10	14.40	0.00	7.00	6.70	(Olesen et al., 2015)
NaGC	323.15	15.00	15.50	0.00	7.00	6.10	(Olesen et al., 2015)
NaTC	273.15	6.30	6.40	0.00	7.00	2.42	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.44	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.46	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.52	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.54	(Coello et al., 1996)
NaTC	273.15	18.00	6.40	0.00	7.00	2.59	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.65	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.68	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.69	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.69	(Coello et al., 1996)
NaTC	273.15	6.30	6.40	0.00	7.00	2.77	(Coello et al., 1996)
NaTC	283.15	8.30	6.50	0.00	7.00	2.70	(Olesen et al., 2015)
NaTC	291.15	7.40	5.02	0.00	7.00	3.80	(Olesen et al., 2015)
NaTC	298.15	5.00	5.00	0.00	7.00	3.00	(Olesen et al., 2015)
NaTC	298.15	20.00	5.00	150.00	7.50	6.00	(Matsuoka et al., 2003)
NaTC	298.20	5.00	5.00	0.00	7.00	5.00	(Matsuoka & Yamamoto, 2017)
NaTC	310.00	10.00	13.50	120.00	7.00	4.50	(Mustan et al., 2015)
NaTC	310.15	12.60	13.50	0.00	7.00	5.00	(Olesen et al., 2015)
NaTC	323.15	14.10	10.80	0.00	7.00	7.30	(Olesen et al., 2015)
NaC	273.15	19.70	5.02	0.00	7.00	3.09	(Coello et al., 1996)
NaC	283.15	17.90	12.50	0.00	7.00	5.50	(Olesen et al., 2015)
NaC	283.80	12.60	12.50	0.00	7.50	4.70	(Garidel et al., 2000)
NaC	284.30	12.50	12.50	100.00	7.50	5.50	(Garidel et al., 2000)
NaC	291.15	14.40	9.24	0.00	7.00	6.20	(Olesen et al., 2015)
NaC	298.15	4.00	4.07	0.00	7.00	3.00	(Maldonado-Valderrama et al., 2011)
NaC	298.15	9.70	4.07	0.00	7.00	4.80	(Olesen et al., 2015)
NaC	298.15	20.00	4.07	0.00	7.00	7.00	(Matsuoka & Moroi, 2002)
NaC	298.15	20.00	4.07	0.00	7.00	8.00	(Maldonado-Valderrama et al., 2011)
NaC	298.15	9.00	4.07	0.00	7.00	9.00	(Abdul Rub et al., 2017)
NaC	310.00	10.00	8.20	120.00	7.00	4.80	(Mustan et al., 2015)
NaC	310.15	18.80	8.20	0.00	7.00	6.20	(Olesen et al., 2015)
NaC	323.15	17.50	10.15	0.00	7.00	5.20	(Olesen et al., 2015)

NaC	327.90	14.00	10.30	100.00	7.50	5.40	(Garidel et al., 2000)
NaC	328.10	18.30	10.30	0.00	7.50	6.10	(Garidel et al., 2000)
NaGDC	291.15	4.40	2.80	0.00	7.00	6.00	(Olesen et al., 2015)
NaGDC	298.15	3.30	2.86	0.00	7.00	7.60	(Olesen et al., 2015)
NaGDC	310.15	5.80	5.90	0.00	7.00	7.40	(Olesen et al., 2015)
NaGDC	323.15	6.10	6.35	0.00	7.00	6.60	(Olesen et al., 2015)
NaTDC	273.15	3.00	2.95	0.00	7.00	2.92	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	4.87	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	4.96	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.15	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.28	(Coello et al., 1996)
NaTDC	273.15	7.00	2.95	0.00	7.00	5.42	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.44	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.61	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	5.79	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	6.01	(Coello et al., 1996)
NaTDC	273.15	3.00	2.95	0.00	7.00	6.22	(Coello et al., 1996)
NaTDC	283.15	4.50	3.02	0.00	7.00	7.00	(Olesen et al., 2015)
NaTDC	291.15	3.00	2.97	0.00	7.00	5.20	(Olesen et al., 2015)
NaTDC	298.15	2.30	3.72	0.00	7.00	6.70	(Olesen et al., 2015)
NaTDC	298.20	3.72	3.72	0.00	7.00	9.00	(Matsuoka & Yamamoto, 2017)
NaTDC	310.15	4.50	13.15	0.00	7.00	8.00	(Olesen et al., 2015)
NaTDC	323.15	5.20	4.20	0.00	7.00	7.10	(Olesen et al., 2015)
NaDC	273.15	4.24	4.30	0.00	7.00	5.78	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.79	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.80	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.80	(Coello et al., 1996)
NaDC	273.15	13.00	4.30	0.00	7.00	5.82	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.84	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.85	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.85	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.86	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	5.86	(Coello et al., 1996)
NaDC	273.15	4.24	4.30	0.00	7.00	6.74	(Coello et al., 1996)
NaDC	283.15	5.10	4.40	0.00	7.00	5.10	(Olesen et al., 2015)
NaDC	285.80	4.40	4.43	0.00	7.50	7.00	(Garidel et al., 2000)
NaDC	291.15	7.10	3.67	0.00	7.00	7.10	(Olesen et al., 2015)
NaDC	298.15	3.10	4.07	0.00	7.00	3.10	(Olesen et al., 2015)
NaDC	298.15	2.00	4.07	0.00	7.00	6.00	(Maldonado-Valderrama et al., 2011)
NaDC	298.15	20.00	4.07	0.00	7.00	10.00	(Matsuoka & Moroi, 2002)
NaDC	310.15	7.00	8.20	0.00	7.00	7.00	(Olesen et al., 2015)
NaDC	323.15	6.40	10.15	0.00	7.00	6.40	(Olesen et al., 2015)

NaDC	327.80	4.00	10.30	100.00	7.50	7.30	(Garidel et al., 2000)
NaDC	328.20	10.15	10.30	0.00	7.50	5.40	(Garidel et al., 2000)

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Table S4 MSR values for BSs with given solubilizates

BS	Solubilizate	$logK_{ow}$	Volume	Temp [K]	pH	Na^+ [M]	MSR	Reference
TDC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.04	(Hofmann, 1963)
TCDC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.03	(Hofmann, 1963)
TC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.02	(Hofmann, 1963)
GDC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.05	(Hofmann, 1963)
GCDC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.04	(Hofmann, 1963)
GC	Azobenzene	4.13	174.56	310.15	6.30	15.00	0.02	(Hofmann, 1963)
TDC	Monoolein	6.61	386.27	310.15	6.30	0.15	1.41	(Hofmann, 1963)
TCDC	Monoolein	6.61	386.27	310.15	6.30	0.15	1.58	(Hofmann, 1963)
TC	Monoolein	6.61	386.27	310.15	6.30	0.15	0.84	(Hofmann, 1963)
GDC	Monoolein	6.61	386.27	310.15	6.30	0.15	1.76	(Hofmann, 1963)
GCDC	Monoolein	6.61	386.27	310.15	6.30	0.15	1.90	(Hofmann, 1963)
GC	Monoolein	6.61	386.27	310.15	6.30	0.15	1.42	(Hofmann, 1963)
GDC	vit. K	8.80	483.87	298.15	7.00	0.00	0.03	(Nagata, Yotsuyanagi, & Ikeda, 1988)
GC	vit. K	8.80	483.87	298.15	7.00	0.00	0.02	(Nagata et al., 1988)
GDC	vit. K	8.80	483.87	298.15	7.50	0.00	0.03	(Nagata et al., 1988)
GC	vit. K	8.80	483.87	298.15	7.50	0.00	0.02	(Nagata et al., 1988)
GDC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.46	(Neiderhiser & Roth, 1968)
TDC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.37	(Neiderhiser & Roth, 1968)
GC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.36	(Neiderhiser & Roth, 1968)
GCDC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.29	(Neiderhiser & Roth, 1968)
TC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.27	(Neiderhiser & Roth, 1968)
TCDC	cholestrol	7.62	423.13	310.15	7.00	0.00	0.23	(Neiderhiser & Roth, 1968)
C	Benzene	1.94	84.04	298.00	7.00	0.00	0.90	(Kolehmainen, 1985)
C	Fluorobenzene	2.10	88.97	298.00	7.00	0.00	0.45	(Kolehmainen, 1985)
C	Hexafluorobenzene	2.63	113.63	298.00	7.00	0.00	0.55	(Kolehmainen, 1985)
C	Toluene	2.39	100.60	298.00	7.00	0.00	0.45	(Kolehmainen, 1985)
C	p-Fluorotoulene	2.55	105.54	298.00	7.00	0.00	0.45	(Kolehmainen, 1985)
C	Styrene	2.79	111.78	298.00	7.00	0.00	0.60	(Kolehmainen, 1985)
C	propenylbenzene	3.04	128.02	298.00	7.00	0.00	0.40	(Kolehmainen, 1985)
C	Anisole	1.99	109.59	298.00	7.00	0.00	0.50	(Kolehmainen, 1985)
C	Fluoroanisole	2.11	114.52	298.00	7.00	0.00	1.00	(Kolehmainen, 1985)
C	Acetophenone	1.84	119.59	298.00	7.00	0.00	0.80	(Kolehmainen, 1985)
C	Fluoroacetophenone	1.98	124.52	298.00	7.00	0.00	0.50	(Kolehmainen, 1985)
C	Nitrobenzene	1.90	107.38	298.00	7.00	0.00	0.25	(Kolehmainen, 1985)
C	Mesitylene	3.21	133.73	298.00	7.00	0.00	0.35	(Kolehmainen, 1985)
C	Tetraline	3.15	140.41	298.00	7.00	0.00	1.30	(Kolehmainen, 1985)
C	Veatrole	1.61	135.13	298.00	7.00	0.00	1.45	(Kolehmainen, 1985)
DC	Benzene	1.94	84.04	298.00	7.00	0.00	0.81	(Kolehmainen, 1985)
DC	Fluorobenzene	2.10	88.97	298.00	7.00	0.00	0.76	(Kolehmainen, 1985)
DC	Fluorotoluene	2.50	105.54	298.00	7.00	0.00	0.72	(Kolehmainen, 1985)
DC	Fluoroanisole	2.11	114.52	298.00	7.00	0.00	0.96	(Kolehmainen, 1985)

DC	vit. K	8.80	483.87	298.15	7.00	0.00	0.05	(Nagata et al., 1988)
C	vit. K	8.80	483.87	298.15	7.00	0.00	0.03	(Nagata et al., 1988)
DC	vit. K	8.80	483.87	298.15	7.50	0.00	0.05	(Nagata et al., 1988)
C	vit. K	8.80	483.87	298.15	7.50	0.00	0.02	(Nagata et al., 1988)
C	Cholesterol	7.62	423.13	310.15	10.00	0.00	0.04	(Nagadome, Okazaki, Lee, Sasaki, & Sugihara, 2001)
C	Stigmasterol	7.87	450.33	310.15	10.00	0.00	0.02	(Nagadome et al., 2001)
C	Cholesterol+Stigmasterol	7.70	426.73	310.15	10.00	0.00	0.04	(Nagadome et al., 2001)
C	cholestanol	7.80	429.34	310.15	10.00	0.00	0.03	(Nagadome et al., 2001)
DC	Cholesterol	7.62	423.13	310.15	10.00	0.00	0.07	(Nagadome et al., 2001)
DC	Stigmasterol	7.87	450.33	310.15	10.00	0.00	0.04	(Nagadome et al., 2001)
DC	Cholesterol+Stigmasterol	7.70	436.73	310.15	10.00	0.00	0.08	(Nagadome et al., 2001)
DC	Cholestanol	7.80	429.34	310.15	10.00	0.00	0.06	(Nagadome et al., 2001)

References for Table S4

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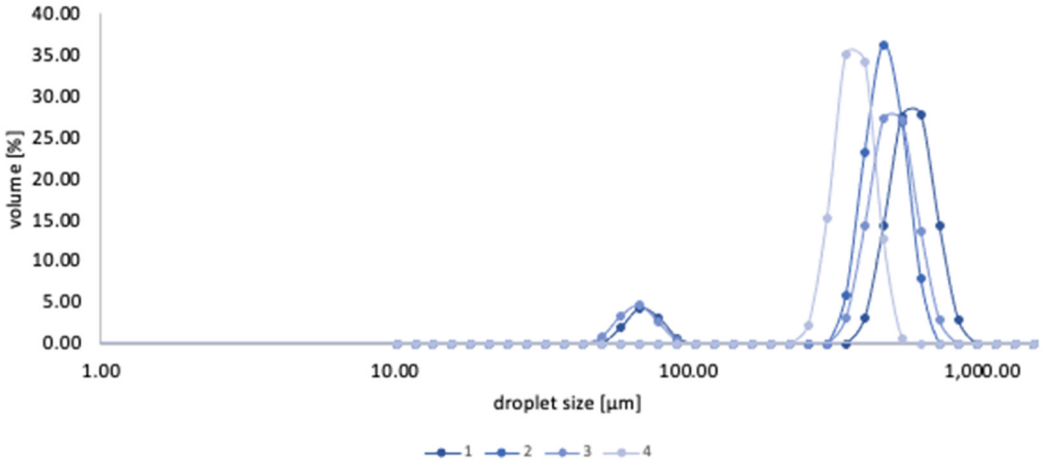

Figure S1. Particle size distribution of O/W emulsion with 0.5% WPI. Numbers: 1,2,3,4 corresponds to each number of run.

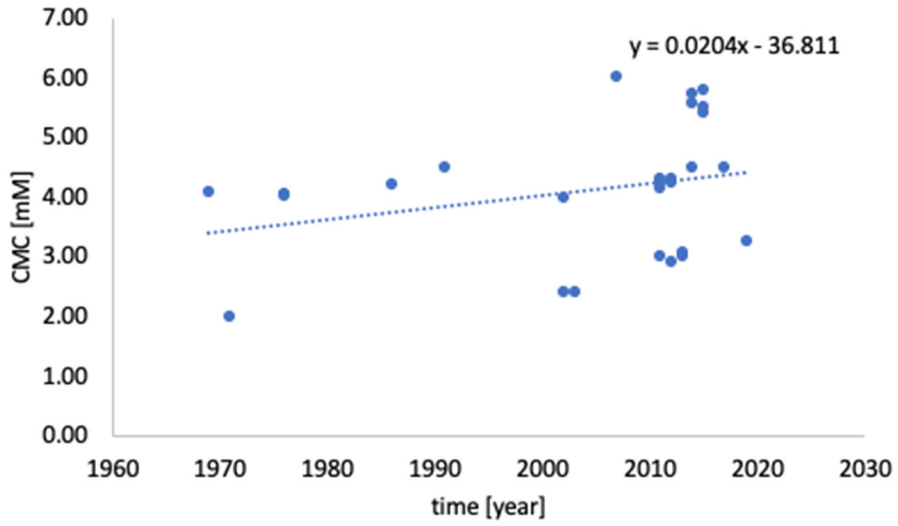

Figure S2. CMC of NaDC at 298.15K increased from 3.92 mM in the 1960-70s to an average of ~4.16 mM in the 2010-2020.