

Detailed table of octene distributions (concentrations in mM) resulting from transfer-dehydrogenation of *n*-octane catalyzed by 1 or 2 using various hydrogen acceptors. All runs conducted at 150 °C with 1.0 mM catalyst in *n*-octane solution.

catalyst	acceptor	time (min)	1-octene	trans-2	cis-2	trans-3	other	dienes	total ^a octene	per cent ^b 1-octene
2	nbe ^c 0.2 M	5	11	0.5	0.6	0	0	0	12	91
		10	23	4	3	0	0	0	30	76
		20	42	29	22	0	0	0	92	45
		30	40	45	43	1	2	0	132	30
		40	32	78	56	2	2	4	178	18
		60	6	82	40	30	16	17	208	3
2	nbe 0.5 M	5	8	0	0	0	0	0	8	>90
		10	19	2	1	0	0	0	22	87
		20	55	28	21	0	0	0	104	53
		30	59	56	40	0	0	0	154	38
		40	59	71	52	0	0	0	182	32
		60	59	105	71	1	2	0	238	25
		90	55	143	97	4	7	11	327	17
		120	49	160	106	5	7	15	356	14
2	tbe 0.5 M	5	21	3	3	0	0	0	27	78
		10	27	6	6	0	0	0	40	68
		20	44	44	31	0	0	0	119	37
		30	44	65	45	0	0.9	0	155	28
		40	42	72	55	2	2	3	180	23
		60	41	103	78	3	6	10	250	16
		90	36	137	93	5	8	20	319	11
		120	30	172	105	5	10	28	378	8
2	1-decene 0.5 M	10	10	0	0	0	0	0	10	>90
		30	43	31	21	0	0	0	95	45
		60	10	64	40	0	5	8	134	8
		120	9	81	40	30	11	14	200	4
1	tbe 0.2 M	6	10	0	0	0	0	0	10	>90
		15	18	19	8	0	0	0	45	40
		30	20	41	20	0	0	0	81	25
		60	18	47	26	0	0	0	91	20
		120	16	54	24	6	0	0	100	16
1	nbe 0.5 M	15	23	4	2	0	0	0	29	79
		30	27	7	3	0	0	0	37	73
		60	30	15	5	0	0	0	50	60
1	1-decene	5	1	0	0	0	0	0	1	>95
		15	13	0	0	0	0	0	13	>95
		30	34	1	0.6	0	0	0	36	95
		60	74	7	4	0	0	0	86	87
		90	94	9	9	0	0	0	111	84
		120	97	32	14	0	0	0	143	68
		180	94	49	21	0	0	0	163	57
		300	73	71	30	0	0	0	175	42

^a total [octenes] + 2 × [dienes]. ^b [1-octene]/("total octenes"). ^c nbe = norbornene; tbe = *t*-butylethene