

Characteristics of the TDIs observed in the different H₂-CO-CH₄ mixtures from the stability limits of Figure 11 and figure 16.

Flame	X_F	ϕ	Le_o	$Le_{F,eff}$	Instability type	Pulsations		Burning area (%)	Cells ^d	
						Amp (%)	Hz		Size (mm)	#
$X_{H_2,CO} = 75\% + X_{CH_4} = 0\%^a$										
1	23.5	0.43	0.98	0.44	Travelling waves	0	3.4	78	25.4	4
2	23	0.45	0.97	0.44	Travelling waves	0	3.3	66	28.4	4
3	23	0.43	0.97	0.44	Travelling waves	0	3.3	71	28.4	4
4	22.5	0.46	0.97	0.43	Travelling waves	0	3.1	71	29.7	4
5	22.5	0.43	0.97	0.43	Travelling waves	0	3.1	71	27.6	4
6	22	0.50	0.96	0.43	Travelling waves	0	2.9	75	18.5	5
7	22	0.46	0.96	0.43	P-IC ^b	28	0.9	10-93	20.1	4
8	21.5	0.54	0.96	0.43	Travelling waves	1	1.0	67-70	13.5	7
9	21.5	0.51	0.96	0.43	P-IC	20	0.9	24-81	19.3	4
10	21	0.55	0.95	0.43	Travelling waves	0	1.0	76	17.1	7
11	21	0.52	0.95	0.43	P-IC	15	1.0	38-79	17.4	5
12	20.5	0.57	0.95	0.42	Travelling waves	1	1.0	74-75	15.3	7
13	20.5	0.51	0.95	0.42	P-IC	8	0.9	43-78	15.2	5
14	20	0.58	0.95	0.42	Partly cellular	2	1.1	63-75	14.5	4
15	20	0.52	0.95	0.42	Pulsating cells	4	1.2	64-70	14.9	8
16	19.5	0.59	0.94	0.42	Partly cellular	1	1.5	61-70	14.5	4
17	19.5	0.53	0.94	0.42	Pulsating cells	4	1.3	55-60	13.9	9
18	19	0.63	0.94	0.42	Partly cellular	0	-	71	10.6	4
19	19	0.52	0.94	0.42	Pulsating cells	1	3.1	58-59	12.7	7
20	18.5	0.61	0.93	0.41	Partly cellular	0	-	65	9.5	4
21	18.5	0.50	0.93	0.42	Pulsating cells	2	3.2	47-51	11.7	10
$X_{H_2,CO} = 60\% + X_{CH_4} = 0\%^a$										
22	23.5	0.45	0.95	0.53	PIP ^c	1	1.1	77-80	-	0
23	23	0.47	0.94	0.53	P-IC	24	0.8	19-99	21.4	5
24	22	0.51	0.94	0.52	P-IC	21	0.8	23-90	18.5	6
25	21.5	0.55	0.93	0.52	P-IC	19	0.8	26-86	17.5	6
26	21	0.57	0.93	0.52	P-IC	18	1.0	16-77	14.9	5
27	20.5	0.59	0.93	0.52	P-IC	17	1.0	19-79	15.3	6
28	20	0.61	0.92	0.51	Partly cellular	1.5	1.1	43-78	14.3	5
29	20	0.54	0.92	0.51	Pulsating cells	9	1.7	27-76	14.5	9
30	19.5	0.66	0.92	0.51	Partly cellular	1	1.2	66-72	12.9	4
31	19.5	0.54	0.92	0.51	Pulsating cells	3	3.1	50-70	11.1	6
$X_{H_2,CO} = 45\% + X_{CH_4} = 0\%$										
32	24	0.46	0.92	0.62	PIP	53	1.0	48-86	-	0
33	23.5	0.47	0.92	0.62	PIP	22	1.0	39-88	-	0
34	23	0.55	0.91	0.61	PIP	21	1.0	44-86	-	0
35	22.5	0.56	0.91	0.61	PIP	21	0.9	38-84	-	0
36	22	0.55	0.91	0.61	PIP	18	1.0	55-78	-	0
37	21.5	0.58	0.91	0.61	PIP	16	0.9	47-72	-	0
38	21	0.60	0.90	0.61	PIP	7	0.8	50-65	-	0

$X_{H_2,CO} = 75\% + X_{CH_4} = 15\%$										
39	22	0.58	1.00	0.51	PIP	1	1.3	70-71	-	0
40	21.5	0.58	0.99	0.51	PIP	3	1.2	64-74	-	0
41	21	0.60	0.99	0.51	PIP	2	1.2	65-74	-	0
42	20	0.61	0.98	0.50	P-IC	10 ^a	1.1	30-76	24.7	5
43	19.5	0.64	0.97	0.50	P-IC	8 ^a	1.1	50-64	22.4	5
44	19	0.65	0.97	0.50	P-IC	8 ^a	1.0	40-72	20.1	6
45	18.5	0.66	0.96	0.49	P-IC	6 ^a	1.2	40-63	18.7	8
46	18	0.69	0.96	0.49	Partly cellular	4 ^a	1.4	66-67	14.7	7
47	18	0.61	0.96	0.49	Pulsating cells	5 ^a	3.2	41-56	19.3	7
48	17.5	0.68	0.95	0.49	Partly cellular	4 ^a	3.3	53-65	13.2	6
49	17.5	0.60	0.95	0.49	Pulsating cells	7 ^a	3.5	48-58	18.8	7
$X_{H_2,CO} = 75\% + X_{CH_4} = 30\%$										
50	17	0.72	0.97	0.6	PIP	22	1.0	34-53	-	0
51	16.5	0.73	0.97	0.6	PIP	16	1.1	25-53	-	0

^aPulsations amplitude given in terms of the variation in flame position due to excessive cellularity.

^bP-IC: Pulsation-induced cells.

^cPIP: Planar intensity pulsations.

^dCells characteristics given at the lowest intensity point of the pulsation cycle.