

**Table S1.** Gas-phase absorption cross-section data obtained for *E*-2-hexenal, *E,E*-2,4-hexadienal and *n*-hexanal.

$\lambda$ (nm)	$\sigma$ ( $10^{-20}$ cm <sup>2</sup> molecule <sup>-1</sup> )		
	<i>n</i> -Hexanal	<i>E</i> -2-Hexenal	<i>E,E</i> -2,4-Hexadienal
290	5.40	2.24	12.80
291	5.42	2.36	11.19
292	5.48	2.49	9.97
293	5.55	2.61	8.92
294	5.64	2.75	8.11
295	5.65	2.90	7.46
296	5.56	3.04	6.99
297	5.44	3.18	6.69
298	5.32	3.31	6.51
299	5.24	3.45	6.37
300	5.20	3.59	6.22
301	5.18	3.73	6.12
302	5.17	3.87	6.02
303	5.15	4.00	5.97
304	5.09	4.17	5.96
305	4.94	4.34	5.97
306	4.71	4.49	5.99
307	4.46	4.64	6.03
308	4.25	4.79	6.09
309	4.10	4.90	6.17
310	3.99	5.01	6.28
311	3.87	5.12	6.39
312	3.79	5.25	6.51
313	3.68	5.38	6.68
314	3.57	5.51	6.87
315	3.40	5.65	7.07
316	3.18	5.79	7.20
317	2.91	5.92	7.28
318	2.65	6.03	7.33
319	2.40	6.11	7.35

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320	2.25	6.14	7.38
321	2.15	6.21	7.51
322	2.06	6.24	7.70
323	1.94	6.26	7.91
324	1.81	6.32	8.17
325	1.68	6.39	8.40
326	1.55	6.49	8.59
327	1.41	6.58	8.75
328	1.26	6.64	8.84
329	1.09	6.68	8.84
330	0.93	6.70	8.85
331	0.80	6.65	8.86
332	0.71	6.57	8.86
333	0.65	6.46	8.88
334	0.59	6.35	8.93
335	0.52	6.25	9.00
336	0.46	6.18	9.11
337	0.39	6.13	9.27
338	0.33	6.12	9.43
339	0.28	6.14	9.66
340	0.25	6.16	9.79
341	0.21	6.19	9.85
342	0.18	6.19	9.82
343	0.15	6.15	9.72
344	0.10	6.05	9.64
345	0.08	5.86	9.47
346	0.06	5.62	9.33
347	0.06	5.30	9.17
348	0.04	5.00	8.98
349	0.04	4.73	8.79
350	0.03	4.53	8.69
351	0.04	4.36	8.65
352	0.04	4.25	8.64
353	0.03	4.18	8.66
354	0.03	4.12	8.67
355	0.03	4.09	8.66

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356	0.03	4.06	8.64
357	0.03	4.02	8.53
358	0.02	3.99	8.36
359	0.02	3.88	8.15
360	0.02	3.77	7.98
361	-	3.56	7.82
362	-	3.27	7.60
363	-	2.92	7.36
364	-	2.57	7.08
365	-	2.27	6.79
366	-	2.03	6.61
367	-	1.86	6.41
368	-	1.74	6.22
369	-	1.65	6.05
370	-	1.58	5.94
371	-	1.53	5.80
372	-	1.51	5.67
373	-	1.49	5.55
374	-	1.45	5.43
375	-	1.42	5.29
376	-	1.38	5.10
377	-	1.35	4.86
378	-	1.32	4.66
379	-	1.26	4.50
380	-	1.11	4.33
381	-	0.88	4.15
382	-	0.71	3.99
383	-	0.60	3.83
384	-	0.51	3.69
385	-	0.40	3.55
386	-	0.35	3.41
387	-	0.33	3.27
388	-	0.31	3.14
389	-	0.29	2.99
390	-	0.26	2.85
391	-	0.24	2.71

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392	-	0.22	2.59
393	-	0.20	2.48
394	-	0.20	2.36
395	-	0.21	2.25
396	-	0.21	2.12
397	-	0.21	2.00
398	-	0.21	1.89
399	-	0.23	1.78
400	-	0.21	1.70

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Electronic Supplementary Material for PCCP  
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